University of Nebraska–Lincoln

Department of Agronomy and Horticulture

Academic Program Review 2012-2017

AGRONOMY AND HORTICULTURE
Institute of Agriculture and Natural Resources

University of Nebraska Lincoln

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Review Process

AGENDA

Monday, October 2, 2017

Team arrives in Lincoln, Nebraska (Embassy Suites Hotel)

5 – 6 pm Review Team Charge with IANR Deans and Vice Chancellor
(Misty's Steakhouse & Lounge –Downtown)

6 – 8 pm Evening dinner for Full Review Team, IANR Administrators,

Richard Ferguson, Interim Head, Department of Agronomy and Horticulture
Martha Mamo, Interim Associate Head, Department of Agronomy and Horticulture
Roger Elmore, Interim Associate Head, Department of Agronomy and Horticulture
Mike Boehm, IANR Harlan Vice Chancellor
Chuck Hibberd, Dean and Director, Extension
Archie Clutter, Dean and Director, Agricultural Research Division
Tiffany Heng-Moss, Interim Dean, College of Agricultural Sciences & Natural Resources

8 – 9 pm Informal meeting of Review Team (Embassy Suites Hotel)

Tuesday, October 3, 2017

Review Team breakfast (Embassy Suites Hotel)

8 – 8:30 am Transport to Keim Hall – Martha Mamo and Roger Elmore

8:30 – 9:15 am Charge to Team by IANR Administrators (Faculty and Staff present) (Keim 150)

9:15 – 10 am Department Overview – Richard Ferguson (Keim 150)

10 – 11 am Undergraduate Teaching and Curriculum – Sam Wortman (Keim 150)

11 am – 12 pm Research Teamwork – David Hyten (Keim 150)

12:15 – 1:30 pm Lunch with Graduate and Undergraduate Students (Massengale Residential Center 115) – Hosted by Leonardo Bastos and Samantha Teten

1:30 – 2:30 pm Campus Facilities Tour – T.J. McAndrew, Facilities Coordinator

2:30 – 3:15 pm Role of Research and Extension Centers in Department Programs – Charles Shapiro and Jerry Volesky (Keim 150)

3:15 – 3:30 pm Break

3:30 – 4:15 pm Role of USDA-ARS in Department (Keim 150)

4:15 – 5:15 pm Extension Teamwork – Daren Redfern (Keim 150)

5:15 pm Transport to Hotel – Richard Ferguson (Keim 150)

6 – 8 pm Informal Reception with heavy appetizers
Review Team and Faculty (Embassy Suites Hotel)

AGENDA

Wednesday, October 4, 2017

7:30 – 9 am	Review Team breakfast with Upper Administration (Embassy Suites Hotel)
9 – 9:30 am	Transport to Nebraska Innovation Campus – T.J. McAndrew
9:30 – 10:30 am	NIC Greenhouse Innovation Center Tour – Amy Hilske, Greenhouse Manager
10:30 – 10:45 am	Transport to Keim Hall
10:45 – 11 am	Break
11 – 12 pm	Meeting with Department Staff (Keim 150)
12:15 – 1:30 pm	Lunch with Alumni Advisory Council (Piedmont Bistro by Venue)
1:45 – 3 pm	Meeting with Assistant Professors (Keim 150)
3 – 3:15 pm	Break
3:15 – 5:30 pm	Individual Faculty Consultation with Review Team Members (Keim 202N)
5:30 pm	Transport to Hotel – Martha Mamo and Roger Elmore
6:30 pm	Dinner for Review Team Members – Venue Restaurant & Lounge

Thursday, October 5, 2017

	Review Team breakfast at Embassy Suites Hotel
7:45 – 8 am	Transport to Beadle Center – Richard Ferguson
8 – 8:45 am	Tour of Beadle Center – Daniel Schachtman, Director, Center for Biotechnology
8:45 – 9:30 am	Review Team meeting with Faculty located at Beadle Center (Beadle Center E228)
9:30 – 11:30 am	Tour Eastern Nebraska Research and Extension Center, Mead, Nebraska – Field Phenotyping with Tala Awada, Associate Dean, Agricultural Research Division and Tom Clemente, Eugene W. Price Distinguished Professor of Biotechnology
12:15 – 1:15 pm	Lunch with Industry Representatives (Keim 150)
1:30 – 2 pm	Conclusion Q & A meeting with Richard Ferguson (Plant Sciences Hall 279M)
2 – 5 pm	Review Team Report Preparation (Keim 150 or Embassy Suites Hotel)
5 pm	Transport to Hotel
6 pm	Dinner (DISH Restaurant)

Friday, October 6, 2017

7 – 7:45 am	Breakfast with Richard Ferguson (Embassy Suites Hotel)
7:45 – 8 am	Transport to Keim Hall – Richard Ferguson
8 – 9 am	Review Team Exit Report to Administrators, Gary Pierzynski, Review Team Leader (Keim 150)
9 – 11 am	Review Team Exit Report to Faculty (Keim 150)
11 am	Review Team Departs
	Lunch provided.

Review Process

TEAM MEMBERS

EXTERNAL TEAM MEMBERS

Gary Pierzynski
APR CHAIR

DEPARTMENT HEAD / PROFESSOR, SOIL AND ENVIRONMENT CHEMISTRY

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DEPARTMENT HEAD

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TEAM MEMBERS

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APC REPRESENTATIVE

ASSOCIATE PROFESSOR

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SCHOOL OF VETERINARY MEDICINE AND BIOMEDICAL SCIENCES

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Review Process

THE PROCESS

The University of Nebraska-Lincoln is required to periodically review all academic programs for the Academic Planning Committee (APC). The review objectives that are required by different organizational levels include:

- An internal self-study,
- An external review of the program,
- A final report that provides a clear plan for applying the results of the review, and
- Specific responses to the program review developed by the chancellor and vice chancellors, deans, department chairs, directors, and heads.

Within the Institute of Agriculture and Natural Resources (IANR), the principal outcomes from reviews are verification of the unit's vision for the future and changes in the unit's programs. The program review is a logical addition to visioning and program planning that adds credibility and validity to the unit's "blueprint" for the future. The review aims to focus on future contributions of the unit as a community of scholars working toward a common set of values, goals, mission, and vision.

Review Process

KEY QUESTIONS

GENERAL

What are the most important emerging issues affecting agricultural systems over the next two decades? Which should be a major focus within our department? Of these issues, where do we currently have a comparative advantage with existing expertise, which could we address with strategic investments, and what specific deficiencies should be addressed?

Are pre-tenured faculty receiving the attention, resources and mentoring needed to be successful? In turn, are mid-career and senior faculty receiving the attention, resources and mentoring needed to be successful? Finally, are Professors of Practice, Extension Educators and Research Professors receiving the attention, resources and mentoring needed to be successful?

Given such a large, diverse group of faculty, how can the department be structured to foster programmatic understanding, collegiality and unity towards common goals?

TEACHING

Should faculty teaching in the horticulture curriculum consider a name change to "Plant and Landscape Systems" as described in the self-assessment?

Should a senior thesis/portfolio be considered as a requirement for graduation? Could it be integrated into the undergraduate capstone courses?

Are there ways we can be more effective in recruiting and retaining students at both undergraduate and graduate levels? Can we be more effective with international students?

If club activities are a valuable, albeit informal, piece of our undergraduate curriculum, how do we increase or incentivize student participation in clubs?

Are there opportunities to integrate club activities with classroom or lab activities? Could formal integration of clubs into the curriculum drive increased participation? One example of this integration is providing credit hours for preparation and practice for national competitions (e.g., Turf Bowl or Weeds Contest).

How can we expand and increase the efficacy of other experiential learning opportunities, such as internships, to better prepare our graduates for their careers?

Are our undergraduate and graduate programs providing clear, but flexible, career pathways?

Is our curriculum meeting the needs of the six cross-cutting priority areas within IANR (Stress Biology, Healthy Humans, Computational Sciences, Science Literacy, Healthy Systems for Agriculture Production and Natural Resources, Drivers of Economic Vitality for Nebraska)?

Should an undergraduate course in plant breeding be a priority to fill gaps in the curriculum?

Should a plant breeding emphasis be an option in the Plant Biology major?

Is there a need for a graduate level course in plant physiology in the department?

Are there learning outcomes or objectives in our curriculum that could be fulfilled in part by collaboration with student clubs?

Are there opportunities for collaboration among clubs in the department?

RESEARCH

How can we make team Hatch projects more productive?

How do we leverage our team research projects with students to promote and teach teamwork?

How we can integrate more as a department across our scientific disciplines to address complex scientific challenges?

How can we better address the emerging challenges of food, water, and energy security at regional and global scales?

Is there value in providing the opportunity for bench science graduate students to rotate among labs to broaden their exposure to research methodologies, and if so what recommendations might the review team provide on how

these might be implemented? Is this approach appropriate for more applied and field based research?

We currently actively evaluate new products and management strategies from industry, in order to provide relevant recommendations for clientele. When intellectual property is not a potential outcome, what would be the recommendation for equitable financial arrangements for the University, PI and industry partner?

Are there areas of emerging research where we should redirect our resources to leverage future opportunities?

Does the molecular emphasis in the document reflect the dept. as a whole?

How much focus should be directed towards organic production systems?

EXTENSION

How do we more effectively involve teaching/research faculty in Extension teams, as well as include Extension/research faculty in classroom instruction teams?

How can we more effectively team with industry partners in Extension programming?

How do we effectively engage with industry when they are increasingly offering one-stop, packaged, fee-based solutions for growers?

How can we effectively involve undergraduate students in Extension teams?

Should Nebraska Extension develop a model to charge research projects for outreach components of the project, if Extension faculty are not among the project PI's?

How can we optimize/customize the approaches we use to interface with various stakeholder groups?

How do we effectively interface with producers and industry in helping them deal with increasingly large data resources, such as precision ag data, and help them turn data into useful information?

Review Process

University of Nebraska System

OVERVIEW

The University of Nebraska is a four-campus (Lincoln, Omaha, Kearney, and Medical Center) university, which was created and exists today to serve Nebraskans through quality teaching, research, and outreach and engagement.

As one of the best public universities in the country, the University of Nebraska positively impacts the people of the state, and through them, the world. To do this, the university effectively competes with other institutions around the world for talented faculty and students. The future of Nebraska is closely tied to that of its only public university, and this framework guides university-wide and campus planning to help build and sustain a Nebraska that offers its citizens educational and economic opportunity and a high quality of life.

The framework of the University of Nebraska system consists of six overarching goals emphasizing access and affordability, quality academic programs, workforce and economic development, research growth, engagement with the state, and accountability. Each goal has a number of related objectives, strategies and accountability measures developed for Board of Reagents and university-wide monitoring over a multi-year period.

The university's efforts are not limited to these priorities and measure progress in other areas given the interrelatedness of objectives, other priorities of the Board of Regents and the NU President, and the ongoing strategic planning efforts of the four campuses. Campus plans are consistent with this framework and operate within its broader goals. Each campus has established a set of quality indicators that provide a means to evaluate achievement and momentum related to its principal objectives.

UNIVERSITY OF NEBRASKA–LINCOLN

The University of Nebraska, chartered in 1869, is an educational institution of international stature. The university is listed by the Carnegie Foundation within the "Research Universities (very high research activity)" category, is a land-grant university and a member of the Association of Public and Land-grant Universities (APLU). The university is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools.

For fall semester of the 2016- 2017 academic year enrollment was 25,897 students, which includes 4,576 graduate students. In the past decade, the university's overall enrollment has grown by 12.7 percent.

In the Fall 2016, for the twelfth-straight year, the University of Nebraska was among the top 55 public universities listed in U.S. News and World Report's annual evaluation of America's Best Colleges and ranked near the top third of all national universities both public and private.

The university has produced 22 Rhodes Scholars, 37 Fulbright Scholars, 14 Goldwater Scholars, 16 Truman Scholars and three Nobel Laureates (George W. Beadle, Donald Cram, and Alan Heeger).

Total sponsored research funding at University of Nebraska–Lincoln reached a record high for the fiscal year ending June 30, 2016, increasing to $267.8 million. The endowment for the University of Nebraska in 2015 was $1.55B.

In addition, the university is part of the Big10 Academic Alliance, the academic arm of the Big Ten athletic conference, which continues to raise the university's academic and research profile through new research collaborations and expanded recruitment opportunities.

The University is poised for growth. The Chancellor has set the goal of 35,000 students in the next ten years coincident with growth in research expenditures to $600M per year.

The University of Nebraska has been home to many legendary figures, including the literary naturalist Loren Eiseley, geneticist George Beadle, artists Aaron Douglas and Weldon Kees, social researcher Alvin Johnson, investor Warren Buffett, comedian Johnny Carson, diva Barbara Hendricks, artist and engineer Harold Edgerton, John J. Pershing, authors Willa Cather and Mari Sandoz, and many others.

Today, students are building on this legacy through their research involvement in fields as diverse as music, law, sociology, religious studies, physics, biochemistry, virology and agricultural sciences including Agronomy and Horticulture.

INSTITUTE OF AGRICULTURE AND NATURAL RESOURCES

The Institute of Agriculture and Natural Resources (IANR) serves Nebraska by providing internationally recognized science and education to assure the state's competitiveness in a changing world. To fulfill this vision with its firm focus on Nebraska, IANR aims to achieve world-class excellence in the life sciences, ranging from molecular to global systems; sustainable food, fiber, and natural resource systems that support a bio-based economy; economics and environments for a sustainable future; and human capital development of children, youth and families. The Institute is accomplishing this vision by advancing knowledge along the continuum from fundamental research to application and education necessary to meet the current and emerging needs of the state; preparing professionals for the future; creating and implementing solutions to critical problems; expanding partnerships across the university, the NU system, and beyond; cultivating public-private partnerships. In short, we fulfill our mission by being at work for Nebraska.

Priorities of IANR:

- The life sciences, ranging from molecular to global systems,
- Sustainable food, fiber and natural resource systems that support a bio-based economy,
- Economics and environments for a sustainable future, and
- Human capital development of children, youth and families.

The strategic plan of IANR, "Ensuring Nebraska's Competitiveness in a World of Change and Challenge" focuses on food, energy, and water security as essential for healthy people in vibrant communities (Appendix X). These efforts are part of the broader life sciences initiatives on the UNL campus with a specific focus on Nebraska at the epicenter of global food production. One in three jobs in Nebraska is directly tied to agriculture or agribusiness, and, the richness of the natural resource base in the state makes it an international leader in production of agricultural products and services. However, to successfully meet the nutrient needs of a healthy global population expected to exceed 9 billion people by 2050, global food production must double during

this same time period. This rapid increase in production must be sustainable and occur fully in concert with reductions in the use of our precious natural resources, especially water, under increasingly shifting climate and environmental conditions. Additionally, with increasing energy needs to fuel the world's growing economy, competition for resources between food and energy production must also be optimized for the benefit of the global population. The challenges and opportunities have never been greater for the people who are stewards of Nebraska's agricultural and natural resources, and for IANR at work for them. The leadership of IANR is truly a team and it is this collective wisdom, conversation, and compromise that have identified gaps and opportunities and have led to the strategic growth over the past five years.

COLLEGE OF AGRICULTURAL SCIENCES AND NATURAL RESOURCES

The College of Agricultural Sciences and Natural Resources (CASNR) offers 30 highly rated academic programs, two pre-professional programs and two professional programs (Doctor of Plant Health and Professional Program in Veterinary Medicine).

Mission

Since the establishment of the University of Nebraska in 1869 and its commitment to the terms of the Land-Grant College Act calling for the instruction in agriculture and applied sciences, the College of Agricultural Sciences and Natural Resources has provided opportunities for students to develop intellectually and meet the challenges of their era. CASNR fosters a student-centered learning environment where diverse basic and applied natural, life, earth and social sciences are integrated into the context of a global society and environmental stewardship. Our goal is to prepare students as leaders for a future in which demands on resources and food systems will challenge sustainability. The areas of study are broad and span animal, plant and human health and well-being, earth systems analysis, agricultural production and processing, global climate change, agricultural market structures, water resources, and land-use change. The College also has the responsibility for the coordination of all agricultural sciences and natural resources programs in higher education within the State of Nebraska.

Goals

The goals of the College emphasize the value that CASNR faculty, staff and administrators place on preparing students for successful professional careers. The goals of the College include Professional Development, Personal Development, Career Preparation, and Continuing Education.

AGRICULTURAL RESEARCH DIVISION

The Agricultural Research Division (ARD) and Nebraska's Agricultural Experiment Station are the major research entities of the University of Nebraska's Institute of Agriculture and Natural Resources. ARD has just over 304 research-intensive faculty members in 15 departments, 4 research centers across the state including 40,000 acres for experimental agriculture, and $80M in grants and contracts. Scientists and extension educators alike make important contributions to the state's agriculture, food industries, environment, the well-being of families, and community development.

Mission

The Agricultural Research Division is the only public entity in Nebraska charged with conducting agricultural research. It is part of a national network of state agricultural experiment stations at Land Grant Universities across the United States. ARD's mission is to conduct problem-solving and fundamental research that:

- Addresses priority issues facing Nebraska's agriculture and food industries;
- Provides the knowledge base essential for managing our natural resources;
- Promotes family well-being and community development; and
- Educates future scientists through hands-on experience.

Goals

The goal of ARD is to enhance the effectiveness of the Institute of Agriculture and Natural Resource's scientific community in conducting and disseminating the results from relevant, innovative and focused research that is widely recognized for excellence in addressing the needs of today's clientele and contributions to the scientific knowledge necessary to meet tomorrow's challenges.

NEBRASKA EXTENSION

Mission

Helping Nebraskans enhance their lives through research-based education.

Overview

Nebraska Extension is a nationally respected educational leader. Nebraska Extensions work in a rapidly changing world, yet one familiar phrase seems most appropriate for Extension's future: "The future is what we choose to make."

Nebraska Extension has a responsibility to clientele and colleagues to maintain high quality educational programs and a relevant and be a responsive and relevant organization. As a learning organization Nebraska Extension engages in discovery by creating and studying in our subject matter disciplines. At the same time, there active engagement to discover processes that help outreach efforts to work together to continue to develop a viable future for Nebraska Extension.

Extension is found throughout the state in 83 county offices that serve all 93 counties, and at four research and extension centers at Scottsbluff, North Platte, Norfolk and Mead. Extension faculty are also located in academic departments on campus. Each of these groups are instrumental in helping maintain a strong educational linkage between extension, research and teaching.

Since its inception, extension has delivered research-based knowledge to people through direct teaching, experiential learning opportunities and publications. Today, extension uses cutting edge technology and traditional delivery to meet the needs of existing and emerging clientele.

Most Nebraskans aren't aware of how much Extension is supporting them on a daily basis, in almost every area of their life. Many are aware of the services Extension provides to the agricultural community, but Extension provides expertise and know-how to sectors as diverse as nutrition, health care, and technology. From border to border and beyond, Nebraska Extension is making an incredible impact on the success of our state, is youth, its families, its farms and ranches, its communities and its economy.

DEPARTMENT OF AGRONOMY AND HORTICULTURE

Overview

The Department of Agronomy and Horticulture (AGH) or its predecessors has been in existence at the University of Nebraska–Lincoln since 1910. The foundation of the current department arose with the integration of the Departments of Agronomy and Horticulture in 2001. Agronomy and Horticulture are integrative sciences, attracting students and scientists from a wide range of disciplines and interests. Plant geneticists, physiologists, ecologists, soil and water scientists, and landscape authorities are well represented among the diverse ranks of our faculty.

This diversity is critical to our primary objectives of:

- Developing students who are prepared for productive careers and service to society.
- Developing cropping systems which are increasingly productive and efficient.
- Developing landscape and horticultural designs, and food and fiber products, which enhance quality of life.
- Protecting and nurturing Nebraska's natural resources.

Mission Statement

The mission of the Department of Agronomy and Horticulture is to advance the knowledge, theory, and application of plant and soils sciences and landscape design to improve the quality of life for citizens of Nebraska and the world.

Our mission is accomplished through:

- A commitment to undergraduate and graduate education.
- An effective balance between basic and applied research on topics with the greatest potential to improve understanding and application of the soil and plant sciences.
- Outreach programs that facilitate the application of science to meet the needs of our diverse stakeholder groups and Nebraska citizens.

Departmental Organization and Governance

The AGH faculty and staff report directly to the department head while the department head reports directly to three Institute of Agriculture and Natural Resources (IANR) Deans. The College of Agricultural Sciences and Natural Resources (CASNR) Dean serves as the "lead Dean" for the unit. As appropriate, the department also reports to the respective deans for the Agricultural Research Division (ARD) and Nebraska Extension.

Our department is comprised of a total of 95 faculty members, inclusive of faculty with joint appointments in other academic units; 75 are tenure track, 8 are professors of practice, 8 are research professors and 4 are extension educators. Faculty based at Research & Extension Centers (REC's) are full members of the department and are evaluated by the department promotion and tenure committee for continuous appointment and promotion, participate on committees and the annual peer review process in cohort with the head and the district director. Additionally, six USDA-ARS scientists are designated as adjunct faculty in our department. Adjunct USDA-ARS faculty advise graduate students, serve on select committees and actively participate in collaborative research projects. Of the 95 faculty members, 28 are new or new to their position in the department since the last academic program review in 2011. Of the new faculty, 12 are positions that have been added since 2011 as part of the strategic hiring process initiated by IANR. Seven of the tenure track professors (>10%) hold named endowed chairs/professorships including 2 presidential chairs.

All faculty, except adjunct and courtesy, are evaluated annually by the department head. Assistant and Associate Professors and Extension Educators are also evaluated by an elected peer committee. The peer evaluation committee contains all ranks and types of faculty appointments except research professors. The peer evaluation committee convenes with the department head to provide input in the review process. Fully promoted faculty are evaluated solely by the department head unless they request peer evaluation or their work location is at a REC.

Except Extension Educators, promotion and tenure candidates are evaluated by a promotion and tenure committee made up of Associate and Full Professors, including tenure and non-tenure track appointments and excluding

research professors. Associate professors do not evaluate or convene for faculty who have applied for promotion to Full Professor.

The department has a Faculty Advisory Council (FAC), an elected body of faculty who meet routinely with the department head to discuss issues, concerns or strategic planning.

Staffing

The department has nearly 70 dedicated permanent staff funded by state and grant resources. Staff are evaluate annually by their immediate supervisor for compensation adjustment and performance conversations occur two times per year. The department has a Staff Advisory Council (SAC), an elected body of staff who meet routinely with the associate department head(s) to discuss issues, concerns or strategic planning efforts which may affect staff.

Since 2011, several staff positions have been amended or created through strategic reallocation of existing funds which broadly support the department's mission. These include:

Event Planner

Wendy Morrissey was hired in 2012 as the department Event Planner. This position developed from a request by the Nebraska Turfgrass Association (NTA), a funding industry partner, to assist with membership duties and conference coordination. The NTA pays for 0.5 FTE and the department uses state funds to pay the remainder. The Events Coordinator manages conferences and events for Agronomy and Horticulture; creates budgets; manages budget and accounting processing; manages department credit card revenue; designs and coordinates advertising and marketing; selects venues; negotiates contracts; creates sponsorship opportunities and solicits industry support for events; develops pricing and registration strategies; develops databases to track registration and attendance; produces name badges, various lists, and reports; provides travel services for speakers and guests; develops attendee packets;

designs and manages event website and related updates; and analyzes event data and makes program recommendations.

Some of the largest ongoing department events are the Crop Production Clinic Program, Pesticide Safety Training Program, Nebraska Crop Management Conference, Nebraska Turf Conference, Nebraska Agriculture Technology Conference, Nebraska Wine and Grape Growers Conference, Nebraska Grazing Conference, Nebraska Range Short Course, Nebraska Turfgrass Research Field Day, Weed Management Field Day, Online Distance Education Program, Pest Resistant Workshops, and the Precision Ag Data Management Workshops. Multiple international conferences and meetings such as the International Master Gardener Conference, International Switchgrass IV Conference, and the SASES Regional Meeting have selected Nebraska as their host. In addition, numerous events honoring department stakeholders, faculty, staff, and students occur regularly. Since the position was implemented, 461 events have been managed, 25,464 external clients have been served, and $1.75 million in event registration fees have been processed. The department has received an additional $65,000 in event management service fees.

Herbarium Curator

Cheryl Dunn's position as Research Manager was reclassified to include Herbarium Curator in 2013 to fill a need that involved research, teaching, and curatorship of the department's 13,000+ plant collection with specimens dating back to the late 1800s. This multifaceted position specifically supports the Range, Pasture, and Forages faculty, graduate students, and undergraduates in our department, which has also allowed them to expand their online presence promoting their research by the creation of a website and other social media platforms that highlight the work they are doing across the state. The position is responsible for teaching the only grassland plant identification courses at UNL. Approximately, 150 students from multiple departments (including our own) and other universities have completed these courses with mostly positive feedback and excellent CIEQ scores. The research component of this position allows for the Range Ecology project leaders and graduate students to get much needed support in all aspects of the scientific method. This person has been involved in multiple research projects with support ranging from plant identification, Geographic Information Systems (GIS), statistical analysis, project design/execution, and manuscript preparation. The curator portion of the position has provided plant identification service to many researchers, staff, other agency staff, and the general public from not only Nebraska, but surrounding states. The curator has been responsible for growing both the teaching and research herbaria, co-authoring a taxonomic book highlighting the grasses of the Great Plains, updating/revising two Nebraska extension publications focusing on grasses and forbs/shrubs that occur in the state, and co-authoring a book utilized across most of North America involving 200 of the most ubiquitous plants.

Design and Communications Team

In 2014, we hired Lana Johnson to join with Fran Benne, our existing media specialist, to create a design and communications team for the department. The Communications and Design team of Benne and Johnson provide professional, award winning copy, digital media and an enhanced social media presence. Communications and multimedia design staff work to create a vision to insure consistency and support for PR, media and other design/media tasks and projects for the department. http://agronomy.unl.edu/multimedia-design-and-communications. The team provides design, print, web, and advertising and marketing services, according to the University of Nebraska–Lincoln Brand standards, needed to promote the department within CASNR, IANR, the university and to external audiences. The 2015 Annual newsletter won Nebraska Press Women's award for best design. Examples of print media include undergraduate recruitment and Nebraska Extension pull-up banners; Undergraduate recruitment sheets; Graduate recruitment ads and posters; Goodding Learning Center mural of photography and illustrations, window signage, and tabletop artwork; Plant Science entry posters for each major. The team is responsible for websites, including http://agronomy.unl.edu/; http://viticulture.unl.edu; http://turf.unl.edu; http://agronomy.unl.edu/range-pasture-forages; http://weedscience.unl.edu/.

The team engages in significant marketing strategies, public relations, and creative development to implement and promote our department brand and mission. These efforts include writing news stories http://agronomy.unl.edu/news, creating promotional visual materials and recruitment ads, photography and video. These materials are then distributed through various social media platforms, department websites and the Keim Hall digital display. To increase exposure, stories are posted to UNL Announce which alerts University Communications and IANR for potentially more widespread distribution.

Social media communications are facilitated by the team including content creation and management of department accounts. Agronomy and Horticulture began to use social media, specifically Facebook, to engage audiences, build a brand, and communicate information, starting in 2014. Since then, we have added other social media platforms—Twitter, YouTube, and Instagram. (Instagram was managed by recruitment coordinator up until 2016 and will be reimplemented in 2017.)

Facebook account @unlagrohort was started in 2014 and has 1,059 likes with an average of 5-10 posts per week. A week snapshot of activity in July 2017 had 19 organic page views, a reach of 3,934, a post engagement of 1,561, 83 video views and two new page followers.

Twitter account @unlagrohort was started in May 2015 and has 851 followers with an average of 4-10 tweets per week. A weekly snapshot in July 2017 had 25 posts or re-sharing of tweets and had 5,844 organic impressions.

The team is also responsible for photography of department events, faculty/staff/student portraits, field days, research and for news and social media. We have built an archive of photos for use in promotional, recruitment and news, continually updating faculty, staff and student photos to use on websites, news stories and promotional materials. The team also coordinates the yearly department photo contest. The award winning pictures are displayed throughout Keim and Plant Science Hall. Scientific Illustration is created on an as needed basis, as is video consultation and production for research projects and recruitment. https://www.youtube.com/channel/UC8mhzm2zXeHH6-shQCp-CXbg

Laboratory Operations Manager

Michael Livingston's position as Research Manager for the soybean program was reclassified in 2014 to Laboratory Operations Manager. The primary responsibilities of this position include lab and building safety, equipment maintenance, and chemical and equipment inventory. Since the position was started the department has gone from two pieces of lab equipment on Service Centers to 28 instruments on Service Centers. Service centers provide equipment on a fee basis, foster availability of working equipment and cover depreciation losses ensuring equipment can be replaced when needed. Eleven well-attended safety and training seminars, including chemical safety, general lab hygiene, agricultural safety, CPR/AED, active shooter, fire, electrical, and proper equipment operation, have been conducted. Thirty one faculty members from the department, 23 Post-Docs and Research Assistant Professors and numerous graduate students have received one on one training per request. Two extensive lab renovations for new and existing faculty have been facilitated by the manager. Extensive support for the development of 6 new faculty start-ups were completed. The manager has fostered positive commendation for the department from UNL's Environment, Health and Safety Department.

Department Annual Newsletter

Rather than duplicate information and effort, readers are encouraged to review Annual newsletters encompassing this review time period and departmental accomplishments, retirements etc. at http://agronomy.unl.edu/annual-newsletter

Self-Study Development

Recent APR efforts in IANR academic units moved toward a more directed approach to create the self-study. Rather than a comprehensive, sometimes onerous effort to develop a self-assessment that encompassed all aspects of the unit, characteristics and issues were chosen based on perceived need for the unit. Agronomy and Horticulture chose to do a similar approach. The department used a series of sequential events to develop the self-study document. Surveys were shared with all faculty except adjunct and courtesy to identify potential external reviewers and targeted components for the self-study. Faculty were given nearly a month to complete the survey with weekly reminders of the task. Faculty were also allowed to share comments via email. Response was good with replies from more than 70% of the faculty. The survey data was compiled, external reviewers identified, contacted and confirmed. Identification of topics for the review were more problematic with a wide array of appropriate, albeit generic, topics. Themes did, however, surface. Collaboration and teamwork were identified as overarching themes as well as undergraduate curriculum and research and extension. These themes were shared with the FAC and faculty with consensus to proceed. The dean's agreed to the themes and three writing teams were identified to develop self-study sections targeted to Undergraduate Teaching and Curriculum, Research Teamwork and Extension Teamwork. The teams solicited input from faculty during development of their sections. Gaps and possible questions for the review team were discussed and developed during a day long, off-campus meeting held on May 26, 2017. Subsequent edits of writing team summaries retained the "spirit" and creativity of the writing teams. The report draft was finalized by the head and associate head and shared with the deans and faculty prior to final revision and being shared with the APR team.

Undergraduate Teaching and Curriculum

INTRODUCTION

The Department of Agronomy and Horticulture undergraduate program is expansive, encompassing more than 325 students within four majors parsed into 15 options, and 24 teaching faculty (defined as any departmental faculty with a teaching apportionment). A framework to illustrate the diversity and complexity of this system is found a few miles from the departmental home; a complicated ecosystem, the prairie. Prairies appear to be homogeneous, with a majority of the species being grasses, but prairies are in fact conglomerations and webs of thousands of species. One resource found in long grass prairies, the soils, allowed an explosion of plant cultivation by Europeans. By coupling cultivation, utilization and native states of the prairies, a conceptual model for our department emerges.

The complex ecology of prairies and the biology of its individual species provide useful analogies for conveying the current landscape of our undergraduate departmental curriculum. Prairies provide ecosystem services which interconnect our local biome with the rest of the world. Similarly, the department is not a solitary landscape feature but is tied to the whole of the University of Nebraska. The practice of culturing plants provides additional analogies such as weeding, pruning, fertilizing, harvesting, and enjoying the fruits of efforts of the department (note: keywords or phrases in each analogy will be green and italicized; e.g., ***budding courses***).

CONNECTIVITY OF COURSES WITHIN MAJORS

A recent internal review of the undergraduate curricula for each major in the department resulted in a shift to outcomes-based curriculum planning. Instead of thinking about, "What should an Agronomy, Horticulture, Turf, or Plant Biology program look like?" (presumably biased by our own undergraduate or professional experiences), we started with the end in mind and considered the question, "What should the 21st century agronomist, horticulturist, turfgrass professional, or plant biologist know at the completion of their degree?" In other words, ***what resources and inputs (skills, knowledge, experiences, and courses) are needed in our prairie ecosystem to ensure viable and vigorous progeny (our graduates) in a career ecosystem filled with abiotic stress and intense interspecific competition***? The recently revised learning objectives for each major are included in Appendix B, but below is one example of how new and existing courses are being aligned with these learning objectives.

Horticulture: Learning objective #13:

> Apply plant and landscape knowledge to a range of systems and scales including field, controlled environment, urban, rural, global, and local.
>
> Our horticulture curriculum has historically focused on specialty crop production in field, nursery, or traditional greenhouse production systems. However, with increasing interest in and potential for urban production of horticultural crops, our students should have experience with and knowledge of modern and urban hydroponic, aquaponic, and controlled environment production systems. Stacy Adams teaches some of these principles in Greenhouse Management (HORT 325), but will also be developing a new course on hydroponic and aquaponic production to ensure we accomplish objective #13 above.

Another goal of our recent curriculum review was to identify common themes in the curriculum that connect our courses to these newly identified learning objectives. ***What are the essential nutrients that we should all be using in our fertilizer applications to promote growth of individual learning communities in our classes? Is there an equivalent to nitrogen in our curriculum*** – something that everyone should be doing to ensure we accomplish the most important learning objectives?

One potential macronutrient to be included as an area of emphasis in the departmental curriculum is state-of-the-art technology. Plant, soil, and landscape professionals have increasing access to valuable software, apps, and sensors, which can improve decision making and efficiency. As a result of curriculum revision, faculty have re-committed to introducing students to these technologies and are integrating them into course and lab activities. For example, the Canopeo smart phone app (developed at Oklahoma State University) is now used in our classes to quickly quantify leaf area of individual plants. Similarly, the Yara CheckIT smart phone app is used in several classes as a quick reference for plant nutritional deficiencies and fertilizer recommendations.

Another newly emerged outcomes-based emphasis in the department is systems-based thinking, driven in part by case studies. The Agronomy major has well-established capstone courses such as AGRO 405 (Crop Management Strategies) and AGRO 435 (Agroecology), which facilitate systems-level thinking for senior students. ***One budding opportunity*** is the development of an agronomic case study which could be used throughout the curriculum from the 100 through 400 level courses. The idea of a curriculum-threaded case study has the potential to better prepare students for system-level thinking as they head into the capstone courses. ***A seedling has already been planted*** in developing a case study that could address this concept. Currently, three graduate students in the department are working to develop online educational resources to facilitate quantitative literacy concepts. Each resource is focused in a different agronomic discipline (soils, weed/plant science, forage/range) based on the course in which each graduate student is currently teaching. The hope is that ***these three individual resources could be grafted together into one overarching case study*** to address system-level thinking with the potential for use throughout the agronomy curriculum.

Faculty have identified science and scientific writing skills as an area of common emphasis and future growth in the department (a macronutrient fertilizer in our system). Effective evidence-based and technical oral and written communication skills are now included in at least

one learning outcome for each major (Appendix B). Toward these new learning outcomes, Brian Waters contributes an existing course (AGRO/HORT 403/803 Scientific Writing and Communication) and is in the process of developing a highly anticipated Scientific Writing Help Desk (see Improving Scientific Writing and Communication section below).

"ESPECIALLY VALUABLE" COURSES

In our departmental exit survey of graduating seniors, students are asked to identify which courses they found to be especially valuable along with those that they found little value. In an attempt to simultaneously ***highlight the most fruitful courses and identify reinvigoration strategies for those few senescing courses***, we asked instructors of two "especially valuable" courses the following questions:

1. In your view, what do students appreciate most about your course content and/or teaching methods?
2. In what ways do you strive to add value to this course?
3. What advice would you give to your colleagues who are struggling to engage students or add student-perceived value to their course?

While there are many departmental courses often cited by students as valuable, AGRO 366 and HORT 214 were consistently ranked as "especially valuable" by students in their respective degree programs. Instructor responses to the three questions above included:

AGRO 366 Soil Nutrient Relationships
Instructor: Martha Mamo

1. "[Students complete] a Performance Task Activity (i.e., summative nutrient management project), where they analyze, synthesize, and create nutrient management plans. This makes it personal and relevant. [I also] build activities related to skills they need (i.e., interpretation of soil test report, soil sampling, fertilizer types/rates, etc.)."
2. "Tie concepts to application or management through case studies or problem sets." See https://unl.app.box.com/s/jwsi4pu49arondlptcv1mf1ayw0q1ajy for examples of these case studies.
3. "Use backward design - begin with the questions to design course & course elements (conversations with extension personnel and past students were helpful to have ideas in my case). Consider what students need to know (cognitive-factual & conceptual) and what students will need to do (procedural) as professional agronomists? Evaluate their prior knowledge and create activities (case, problems) that actually links to what they already know or have experience in. If you do this, they can relate better (affective domain). [Lastly], give them opportunities to regularly explain in writing what they have learned to the 'client' (reflection)."

HORT 214 Herbaceous Landscape Plants
Instructor: Kim Todd

1. "HORT 214 is organized according to possible use categories (Heavy Drinkers, as an example, is water-loving plants), but the information available to them includes plant lists that can be sorted by family, scientific name, common name, environmental preferences and tolerances, and management requirements; study summaries in a Word document; and PPTX for each list populated with original photos. My teaching method is energetic and spontaneous, and I attempt to personalize the plants using comparisons to everyday words, objects, or applications."
2. "I modify the content every semester, based on new information. Each season I purchase plants for the Backyard Farmer, Evasco Gardens, and the Keim Courtyard. I take students outside on every possible occasion to show them the plants in context and in multiple months, and each list is supplemented by 'twiggage' (live samples). Quizzes have been extensively modified to allow students to use all resources available, including websites, and to require them to compare and describe plants and situations rather than simply memorizing names."
3. "Personalize it, make it current, make it fun, be as human as possible, and above all, be flexible. Ask them when what you are doing is not working, and listen to their responses. As an old dog, I find that students pay attention when I refer to something

they've never heard of or give them a specific situation in which they would need to know the plant or use it."

CURRICULAR CONTRIBUTIONS TO UNIVERSITY

While a prairie is a carbon and energy sink, ***some of our courses are carbon sources that fuel student discovery*** throughout the University. A few examples of service courses are:

AGRO131 / HORT131 Plant Science

This course is required for many of the options within the department majors, but over the last five years 75% of students were non-majors, including many students outside of CASNR. In 2016–2017, over 400 students enrolled in this course during the spring, summer (online), and fall terms. This course fulfills a general education (Achievement-Centered Education, or ACE 4) requirement in science (http://ace.unl.edu/about/outcomes).

BIOS 109 Botany (soon to be AGRO/HORT 2XX)

This course is being moved to the department from the School of Biological Sciences. While required for some options within the department, roughly half of the students in the course are in the School of Natural Resources. It also is an alternative for the biology core for Science Education majors.

AGRO 215 Genetics

Historically this course was primarily populated by departmental majors, but has grown to fulfill an introductory prerequisite for students in the Department of Animal Science.

AGRO403 / HORT403 Scientific Writing and Communication

This course has been mostly graduate students, yet ~40% of the total enrollment is students from other departments, including 13 different majors, which creates opportunities for cross-pollination of ideas across campus.

IMPROVING SCIENTIFIC WRITING AND COMMUNICATION

In 2014, Brian Waters began teaching "Scientific Writing and Communication" (AGRO/HORT 403/803). The impetus for this course was to help senior undergraduates write about research projects that are required in two majors; Plant Biology and the Plant Science option of Horticulture. The course was designated as a capstone for those majors, and was also designated as an ACE 10 course (one that fulfills a general education requirement for the University). The course is also geared toward helping graduate students write their thesis or dissertation chapters. As such, ***students in this course are at the flowering to fruit ripening stages***, where their previous coursework and research is coming together to produce a tangible product. At the same time, for students who will continue in scientific careers, ***this course provides roots in the form of career skill development and professionalization*** that will provide a solid base for future work. This course ***has become root-bound in its original container*** (15 students per semester), and will be ***propagated in 2017 to be offered twice per year***.

An offshoot of Brian Waters' efforts in teaching "Scientific Writing and Communication" is that in 2017 he began establishing a "Scientific Writing Help Desk" as part of his research apportionment. ***This resource, still germinating, is expected to provide support*** to students doing writing assignments in their courses, and instructors in designing and implementing writing-to-learn assignments or activities. Many ***new writing-to-learn outcomes are still budding***, but Brian has been working with departmental instructors Don Lee, Rob Vavala, David Holding, Martha Mamo, and Meghan Sindelar, and Jenny Dauer of the School of Natural Resources to develop or modify writing assignments in their courses. Brian sees his future role as being a part of teaching teams, and also in ***hybridization by facilitating new collaborative efforts among faculty related to using writing as a teaching tool***.

CONTRIBUTIONS TO SCIENCE LITERACY INITIATIVE

Within our College and Institute, the Science Literacy Initiative aims to foster a scientifically-literate society capable of making effective decisions grounded in STEM-informed analyses of complex, real-world challenges associated with food, fuel, water, landscape, and people issues. Within the department, we have recently defined ***several science literacy goals that have led to emergence of new plants and reinvigoration of mature plants in the curriculum***. Our department goals are to:

1. Assure strong science literacy among all undergraduate and graduate students that take our courses.
2. Prepare students in agronomy and horticulture for successful careers and enable them to make informed decisions about plant and soil resources.
3. Increase student recruitment and retention through agronomy and horticulture courses that foster science literacy.

One emerging seedling is a new course with science literacy as a primary learning objective: Plants, Landscapes, and the Environment (HORT 100). This newly developed course is intended to blend aspects of an introductory plant systems course with SCIL 101 (Science and Decision-Making for a Complex World, a college-required course under the new Science Literacy listing). Students will use an evidence-based decision-making framework to tackle complex environmental issues in plant and landscape management systems. Many of the ***juvenile or mature plants in our departmental prairie, existing courses, have been reinvigorated by the science literacy initiative***. Our departmental capstone major courses have always been designed to develop, achieve, and confirm science literacy in our upper-level students, but there are new efforts among faculty to formally document science literacy learning outcomes in these courses.

DISTANCE EDUCATION

Distance education is a departmental strength, with many ***exciting opportunities to propagate new courses and prune existing courses*** for greater value. ***Current courses in the online ecosystem*** include 15 undergraduate and 21 graduate courses. Of these online courses, 17 are also offered as non-academic learning modules for Extension education audiences or other life-long learners. There are ample opportunities for growth through the ***pruning*** of currently delivered online and resident courses (e.g., revisions to currently delivered online courses, conversion of

resident courses to include an online section) and the ***new seeds to be planted*** (e.g., development of new academic or non-academic certificates, and the possibility of online lab course delivery).

Earning an online MS in Agronomy (thesis or non-thesis option), a graduate certificate (in Horticulture or Grassland Management) or professional certificate (Plant Breeding and Genetics for non-academic learners) are all possibilities through the department online program. Synergy is created for instructors delivering content as these programs continue to grow because they draw upon the same information and online learning tools across all these programs.

Our courses are delivered in a variety of formats: blended, resident and online only courses. Utilizing the efficiency and effectiveness of ***online technology to enhance the learning opportunities for students acts as the fertilizer needed for our students' learning needs***. The blended learning environment utilizes online delivery of the lecture content for student viewing outside of face-to-face class time. During the blended course face-to-face class time, instructors then provide learning engagement opportunities such as small or large group discussion, case studies or question and answer sessions. Instructors of "Plant Sciences" (AGRO/HORT 131), "Introduction to Soil Resources" (AGRO/HORT 153), "Genetics" (AGRO/HORT/TLMT 215) and "Soil Nutrient Relationships" (AGRO 366) are currently using the blended course structure as one of the delivery methods. Student data on learning outcomes is being collected and can be used to make further delivery decisions in the future. ***Cross-pollination between these delivery systems can happen easily*** since the resources that instructors create for online delivery can be incorporated into a blended or resident course.

Distance education ***seeds still in development, but not yet matured***, include: structured peer and self-evaluation of online courses, continued focus on applied information and providing course content in context scenarios compared to only presenting information through lecture format, and using online opportunities (i.e., blended courses, online resources to support course concepts) to increase student engagement and learning. Partnerships with industry and other departments are being developed to create additional non-academic professional certificates (e.g., a Pesticide Resistance Management certificate) would combine various disciplines and target ***a system-wide management approach***.

The Plant and Soil Sciences eLibrary (PASSeL) website provides learning resources and opportunities for Extension learners and academic students, instructors who want to use these resources in course, and the general public. This website was originally developed 18 years ago in this department. Collaborations among colleagues from educational institutions, grant funded partnerships and agricultural industry supported the initial and continued development of online learning resources found on PASSeL. This ***mature and well-established website is currently undergoing some intense pruning*** in the forms of revisions and updates to continue to serve learners well into the future.

TEAM TEACHING IN THE DEPARTMENT

This department has an established culture of encouraging team teaching. As examples, AGRO 131, 132, 153, 215, 240, 366, 426, 431 and HORT 275, 388, 488 use a combination of teaching talent ***tailored specifically to enhance the fertile soil of the classroom (resident or online) that will grow student learning***. These courses use combinations of undergraduate and graduate learning assistants, teaching staff, and professors of practice and tenure-track faculty to meet teaching demands. There are examples of faculty only collaborations as well (e.g., HORT 824 – Plant Nutrition with Paparozzi & Blanco; HORT 352 – Physiology of Horticultural Crops with Paparozzi & Read; AGRO 411/811 – Crop Genetic Engineering with Clemente & Sandall). This team approach to teaching requires coordination and intentional focus on student learning needs.

Given there is an established growth pattern with team teaching in the department, there are likely ***areas that can be pruned to promote growth in different directions***. Some of the areas that could be targeted for pruning include the traditionally-taught lecture-only courses. What opportunities for collaboration exist within these courses (e.g., online resource development, new activities developed, teaching a new online or blended section, expert-guest instructor for a portion of the class, etc.)?

STUDENT RECRUITMENT

Student recruitment and retention remains a top priority for the future. One recurring recruitment question has been, "Are the names of our majors and options identifiable and interesting to potential students?" For the Horticulture major the answer seems to be trending toward "no" in recent years. Only 41% of 18 to 24 year olds are aware of the word "horticulture" (Meyer et al., 2016).

Meyer, M.H., D. Needham, J. Dole, B. Trader, J. Fox, M. Conley, M. Neff, and J. Shaw. 2016. Importance of Horticulture and Perception as a Career. HortTechnology 26(2): 114–120.

Equally troubling is that awareness of the word "horticulture" is far lower among minority and low income people compared to Caucasian or high income people. If the majority of high school graduates, especially underrepresented populations, cannot identify with the name of the major, then the time has come to rebrand. Horticulture faculty are not abandoning what they do, but propose to rename the major "Plant and Landscape Systems" as a modern and accurate description of what students will study in the major. ***Our goal is to increase diversity and abundance of our prairie seedbank***, and we believe we will be in a better position to do that with a new name.

Rebranding was deemed unnecessary for the other three majors in the department. The word "agronomy" is still identified by many high school students in the region, in part because of the abundance of job titles and companies that contain the word "agronomist" or "agronomy." Similarly, "Turf and Landscape Management" is easily identified by students, especially those specifically interested in turf management and a career as a golf course superintendent or sports turf manager.

Following Nebraska Admission's tagline of 'Your Story Matters', our department adopted the tagline 'Grow Your Story' in 2014. We target prospective students on how they can "grow their story" by highlighting activities and achievements of our current students and recent graduates. These activities and achievements reach prospective students through one-on-one interactions, group visits, browsing fairs, direct mailings, emails, the undergraduate pages of the Department website, and social media. Annually we make 1000+ direct contacts with prospective students through these or similar activities. Table 1 lists the typical annual communication and event plan. Added in 2016-17 were two major specific recruitment days, and

Table 1. Typical annual event and content list for recruiting.

Red Letter Days	Lunch with prospective student and parents
Undergraduate Webpages	Annually updated with scholarship, internship, student quotes, and Grow Your Story flyer for AGRO, HORT, PBIO, and TLMT
Grow your Career Flyers	Annually updated with scholarship, internship, career, and student images and quotes for AGRO, HORT, PBIO, and TLMT
Explore Turfgrass and Landscape Management	Letter and postcard to prospective students, promoted via Facebook and Twitter, email to Extension Educators, press release, and announcement to professional organizations – NNLA and NTA
Explore Plant Biology	Letter and postcards to prospective students, and email to high school Science Teachers and advisors in the Explore Center
Scholarship Application and Award	Scholarship email and postcard sent to admitted A&H students notifying students of scholarship application; award email notification mad prior to enrolment deposit deadline
Admit Campaign	Congratulations postcard to admitted students
Senior Inquiry Campaign Postcard	Postcards sent to self-identified senior students with interest in AGRO, HORT, PBIO, TLMT or related major
Junior Inquiry Campaign Postcard	Postcards sent to self-identified junior students with interest in AGRO, HORT, PBIO, TLMT or related major
Transfer Campaign Postcard	Postcards sent to self-identified transfer students with interest in AGRO, HORT, PBIO, TLMT or related major
Fall CASNR Open House	Major specific information delivered in presentation, tour, and browsing session
Spring CASNR Open House	Major specific information delivered in presentation, tour, and browsing session
Admitted Student Event	Major specific and University process (deadlines, applications, etc.) information delivered
Individual Campus Visits	Discussion with prospective student and parent(s) about curriculum, equivalencies, scholarships, internships, careers, clubs, and any other questions of concern from the student or parent(s)
Class/Group Visits (Extension, high school classes, 4-H, FFA, Boys and Girls Clubs, etc.)	Activity, discussion, or tour on topic of interest to high school aged students

the intent is it to continue these events in future years. The department also participates in one-time events or events that have rotating points of emphasis each year, such as Counselor Updates, Nebraska State Fair, and Plant Fascination Day. These are not included in the appendix because participation varies from year to year. Developing and sustaining relationships with positive influencers for department majors is another focus. Through various activities, the department partners with UNL, CASNR, Nebraska Extension, business and industry members, alumni, community college instructors, and high school ag and science teachers from public and private schools.

GROWTH GOALS AND CHALLENGES

As a University, College, and Department, we have ambitious goals for growing our student enrollment, while synchronously improving the quality of the student experience. For several years, University administration has been targeting enrollment growth of 25%. Faculty in our department were recently surveyed (albeit informally) to determine potential challenges to this enrollment growth. Personnel support (e.g., learning assistants, graders, etc.) was identified as the biggest challenge (Figure 1). However, there were also concerns about the capacity of current facilities, supplies, and financial resources, which are at least partially validated by examining the current enrollment of introductory courses in the department (most of which are at or near capacity; Figure 2). ***In prairies, there are often ecological tradeoffs between fecundity and fitness***; thus, one goal for this academic program review is to strategically plan for growth so as to ensure we do not jeopardize the quality of our undergraduate program.

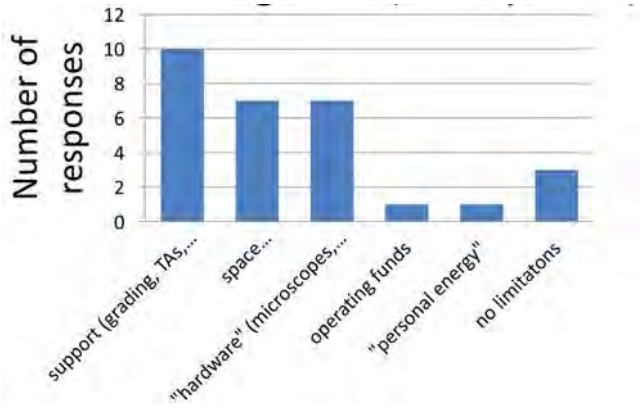


Figure 1. Potential barriers to targeted growth in student enrollment (25%) as identified by 18 faculty teaching in the Department of Agronomy and Horticulture. Source: Dennis McCallister, Emeritus Professor –informal email, Spring 2017.

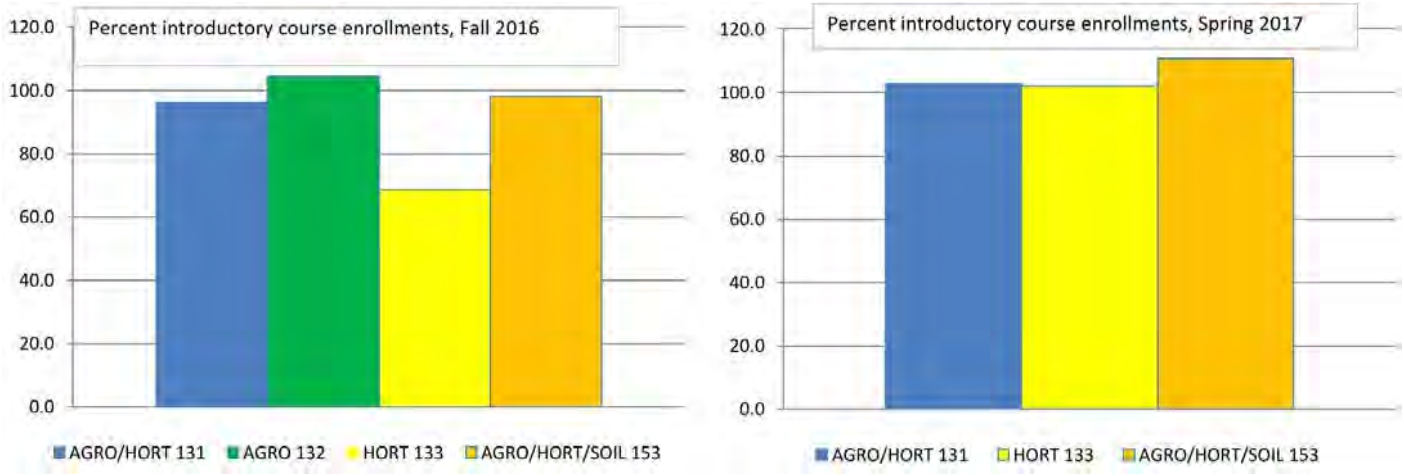


Figure 2. Introductory course (AGRO/HORT 133, AGRO 132, HORT 133, and AGRO/HORT/SOIL 153) enrollments as a percent of published course enrollment maxima. Source: Dennis McCallister, Emeritus Professor collected data from University of Nebraska–Lincoln enrollment database.

STUDENT CLUBS

Fifty-two percent of undergraduate students in our department participate in at least one extracurricular club (as indicated in exit surveys of graduates from 2014 – 2016). ***Club activities serve as mutualistic mycorrhizal fungi to our undergraduate curriculum and enhance knowledge uptake efficiency for our students***. Energy is returned to these invaluable fungi in the form of faculty advisor time and club leadership. The student club activities promote professional development and include plant production and marketing experience, field trips to commercial nurseries and chemical and seed companies, attendance and presentation at professional meetings, competition in national contests, and interaction with industry professionals.

The Horticulture Club (advisers: Stacy Adams and David Lambe) recently dehisced high-value seed from the fruit of their labor by providing $40,000 of club funds to help finance a teaching lab renovation in Plant Sciences Hall. ***The lab, once the equivalent of a sun-scalded, rotting tree, has been transformed into an African violet that blooms year-round*** for students and faculty to enjoy and will undoubtedly lead to immeasurable improvements in student learning, recruitment, and retention (Figure 3). Coincidentally, African violets are grown in this room via tissue culture in Plant Propagation lab (HORT 221), and the room is used for Floral Design and other horticulture courses, as well as courses that support the agronomy major like Invasive Plants lab (AGRO 426). This incredible gift was funded not by student dues, but instead by years of successful spring and fall plant sales, and winter poinsettia sales. Production and marketing experience

Figure 3. Plant Sciences Hall room 274 before (top; dying oak tree) and after (bottom; perpetually flowering African violet) gift from Horticulture Club and renovation.

that students gain from plant sales complements learning in classes like Greenhouse Management (HORT 325) and Agribusiness Entrepreneurial Finance (HORT 275). Many of these same students are also members of the Horticulture National Honor Society, Pi Alpha Xi (advisers: Ellen Paparozzi and David Lambe). Pi Alpha Xi is the national horticulture honor society. Any student with an overall GPA above 3.0 and 15 hours in horticulture classes is eligible. Thus, in addition to horticulture students majoring in turf and landscape management and plant biology are members. At Nebraska, the Alpha-Gamma chapter, conducts an annual wreath-making workshop which is

open to the local residents as well as the university community. The proceeds fund a matching scholarship for one student. Students promote scholarship and leadership by maintaining the Honor Wall outside of 274 and 275 Plants Sciences and awarding the President's Citation each year to the individual(s) that have shown great support of horticulture at UNL. These individuals are mainly from industry and this award is viewed by them as one of the most prestigious as it comes from the students.

The Turf Club (adviser: Anne Streich) provides an important link between our curriculum and the turfgrass industry. Students in the club recently competed in the 2017 Turf Bowl at the Golf Industry Show and placed 8th out of 58 teams from around the U.S. The Turf Bowl requires students to solve a written case study question, identify plants and management issues, and answer questions related to business dimensions of the turf industry. This type of club activity is multifunctional in that it: 1) encourages networking among our students, industry professionals, and students and faculty at other institutions (skills further developed in TLMT 127 (Survey of Turfgrass and Landscape Management) and TLMT 395 (Career Experience/ Internship)); 2) provides a higher-stakes environment for students to apply their classroom knowledge in different contexts; and 3) incentivizes learning through intercollegiate competition.

Students in the Agronomy Club (advisers: Chris Proctor and Meghan Sindelar) and the Range Management Club (advisers: Walter Schacht and John Guretzky) also benefit from national contests (Crops Judging and Range Plant Identification and Management) and benefit from strong involvement with professional societies (Students of Agronomy, Soil, and Environmental Sciences; and Society for Range Management, respectively). Range plant identification and management contests correlate directly to courses in our undergraduate curriculum and provide obvious synergy in the department. The Agronomy Club has hosted industry speakers from the Nebraska Corn Board, Big Cob Hybrids, and Community Crops, and visited a Dekalb Seed Production Plant. Speakers and field trips expose students to a range of marketing, seed, non-profit, and production industries related to their interests, which complement their classroom knowledge and also help to shape career directions and development (e.g., preparation for interviews and career fairs). ***The progeny of our undergraduate program are the graduating students***, and career development activities provided by ***student clubs help to ensure these seeds germinate and bear fruit of their own*** (a successful career).

These five student clubs have a rich history in the department and complement our undergraduate curriculum in many different ways. ***While these clubs are mature, fruit-bearing plants in our department ecosystem, opportunities remain to enhance the yield and quality of these fruits***. As we reflect on the success of these student clubs and look strategically to the future, we consider the following questions:

1. If club activities are a valuable, albeit informal, piece of our undergraduate curriculum, how do we increase or incentivize student participation in clubs?
2. Are there opportunities to integrate club activities with classroom or lab activities? Could formal integration of clubs into the curriculum drive increased participation? One example of this integration is providing credit hours for preparation and practice for national competitions (e.g., Turf Bowl or Weeds Contest).
3. Are there learning outcomes or objectives in our curriculum that could be fulfilled in part by collaboration with student clubs?
4. Are there opportunities for collaboration among clubs in the department? We ***currently have five high-yielding hybrid cultivars (clubs), but could outcrossing lead to new genetic gains and higher quality fruit?***

INTERNSHIPS/EXPERIENTIAL LEARNING

Internships are key components of our student's academic experience. They allow students to explore different areas of their major, make connections with future employers, and experience a professional work environment. Turfgrass and landscape management students are required to complete two internship as part of their degree requirements, while agronomy, horticulture, and plant biology degree programs require one internship. In the proposed horticulture curriculum revision two internships will be required. Prior to the internship students submit a plan for their learning experience. Upon completion of the internship students submit a written report and make an oral presentation to peers and faculty.

Our students have had the opportunity to intern with prestigious golf courses, influential producers, major agricultural companies and NFP's and NGO's. Students, in exit surveys, when asked "*Did your internship or career experience contribute to your education*?" nearly 100% reply yes. Comments also solidify the value of the internship experience: "*it was the perfect hands-on and real life complement to my in class education and lead directly to my post-graduation career*"; "learned more in my internship than all my classes combined"; "*I was required to participate in an internship but also did two others that all gave great education on the field of Agronomy*"; "*The three I have completed have each taught me something different about myself or with the landscaping world*". Locations of interns are diverse and international. Internship locations over the last 5 years are shown in Figure 4.

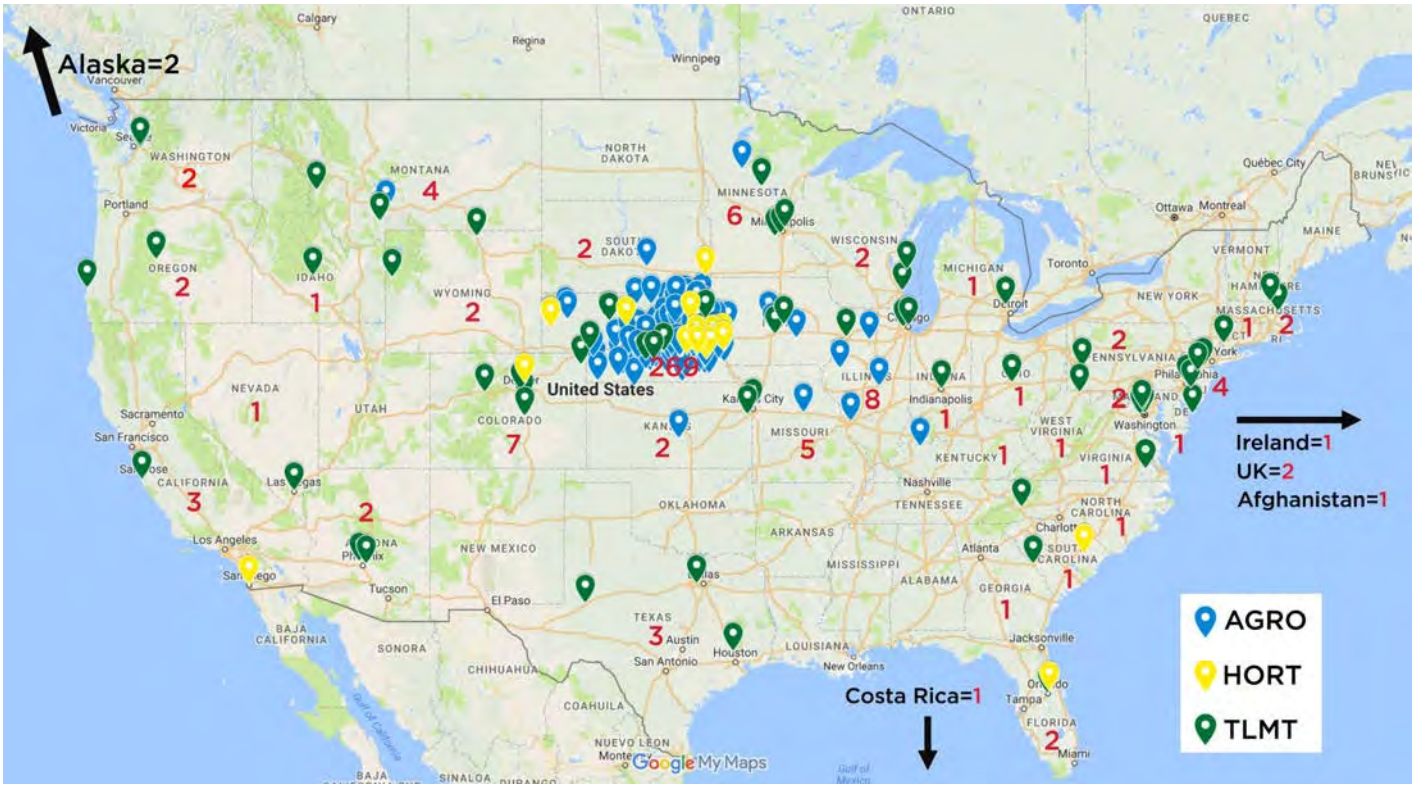


Figure 4. Internship locations over the last 5 years. Data provided by Department of Agronomy and Horticulture faculty.

CAREER PLACEMENT

In our college, we often talk about science with a purpose, and in our department we talk about plants with a purpose. Inherent in that purpose-based focus is an emphasis on the careers we are preparing students for. Exit survey data from recent departmental graduates provides useful information about ***career areas of vigorous growth and those approaching near dormant levels***, and we can use this information to ***prune our curriculum*** and courses to better serve our stakeholders. In summary, a majority of agronomy graduates are employed as agronomists or sales agronomists and more than half of all agronomy graduates have starting salaries of >$41,000 (Figures 5 and 6). Horticulture graduates are more diverse in their career paths, but the two most popular positions are in landscape design and production management (e.g., greenhouse manager). The majority of horticulture graduates report salaries between $30,000 and $40,000, but 40%

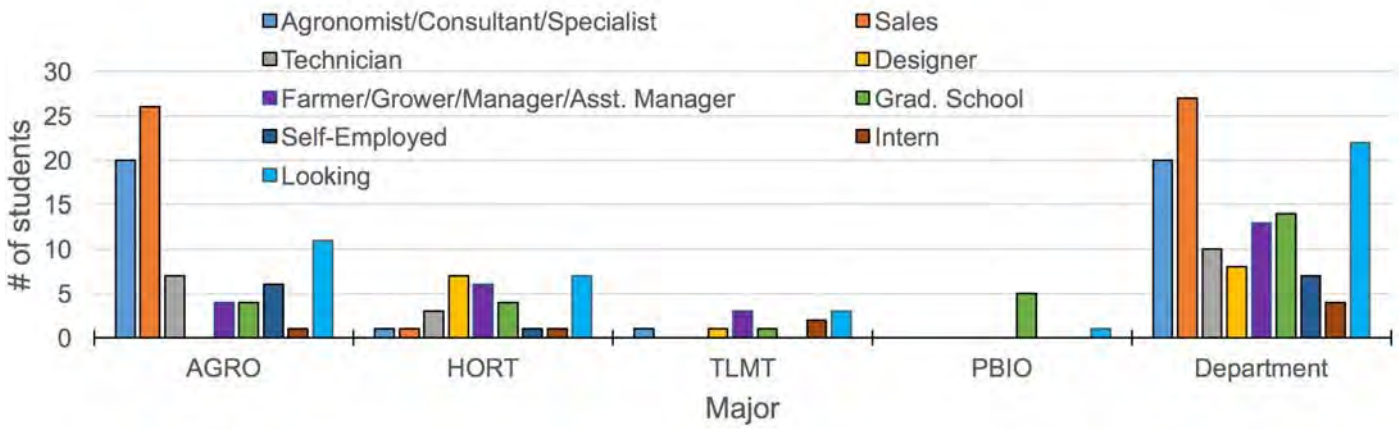


Figure 5. Frequency of career types for graduating students from the department and each of four majors (AGRO=Agronomy; HORT=Horticulture; TLMT=Turfgrass and Landscape Management; PBIO=Plant Biology). Data was collected by the department from a volunteer exit survey of graduating students each semester from Spring 2014 to Fall 2016 and average response rate was 51%.

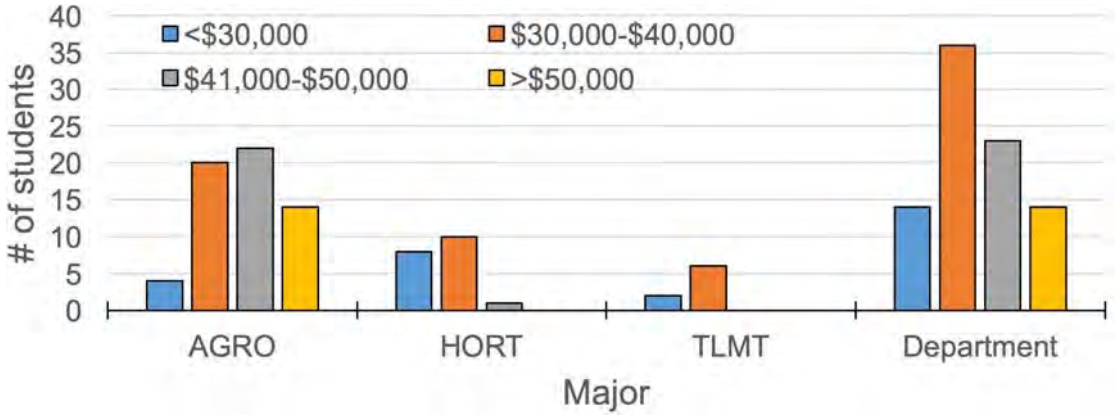


Figure 6. Frequency of starting salary ranges for graduating students from the department and each of three majors (AGRO=Agronomy; HORT=Horticulture; TLMT=Turfgrass and Landscape Management). No salary data was reported for Plant Biology graduates as most enrolled in graduate school. Data was collected by the department from a volunteer exit survey of graduating students each semester from Spring 2014 to Fall 2016 and average response rate was 51%.

of graduates report salaries of less than $30,000, which may be ***contributing to the stunted growth*** of horticulture programs throughout the country. We have less data for Turfgrass and Landscape Management graduates, but several of these students are employed as assistant golf course superintendents or interns with grounds crews for professional sports teams (e.g., Boston Red Sox). The salary trends for turfgrass and landscape management graduates are similar to those for horticulture. All of the Plant Biology graduates responding to the exit survey were enrolled in graduate school and did not report salary (Figures 5 and 6). Moreover, Plant Biology is a relatively new major created within the last decade.

One potential area of concern is the frequency of students who report they are "still looking" for employment at the time of their exit survey. Many of these respondents were December graduates (when hiring is typically slower), but as we look inward, t***here may be opportunities to better cultivate and market the fruit of our prairie***. Toward this end, Anne Streich is working to revise our internship program to increase emphasis on resume development, networking, and job searching strategies. Moreover, the newly revised horticulture major (Plant and Landscape Systems) will now require two distinct internship experiences (which is already required of Turfgrass and Landscape Management students), which should help to improve career development and market readiness of our graduates.

CONCLUSIONS: GREENPRINT FOR FUTURE LEARNING

Just as the prairie has been designed by nature and has evolved over millennia, we are seeking a curriculum in Agronomy & Horticulture that will be responsive to abrupt changes in economics, climate, and winds of politics. Our students will be solving problems in the farming, horticultural, and ranching systems that they will face one to four decades from now, not merely those that we see as priority challenges today. Our department is open and resilient, while keeping clearly in mind the importance of whole systems thinking and how we can prepare students for the future.

This is an exciting time to be part of the undergraduate program in the Department of Agronomy and Horticulture. There is positive momentum behind strategic initiatives in writing, science literacy, distance education, and team teaching, which have all helped to drive the ***pruning and reinvigoration of student learning outcomes*** and increasing connectivity of courses within and among majors. We are optimistic about the future of our undergraduate program, but important work remains to be done to improve student recruitment, retention, and career development and placement. Toward this end, we plan to strengthen student internships and career experiences, and further leverage student club activities in our curriculum. One of the emergent properties of promoting a range of learning opportunities and assembling such a diverse faculty with a multiplicity of talents is a community capacity to see things whole, and to bring together the knowledge of components and mechanisms to improve integrated food systems, depending on soils and plants. We are one of the most academically diverse administrative units on campus, and one with the greatest capacity to bring together the pieces and evaluate how they contribute to long-term sustainability in food systems. As we reflect on the last five years and look forward to the next five, we celebrate our successes in course offerings and student placement, but also must begin taking important steps to increase our relevance and impact in Nebraska and beyond. And we clearly view the next five years as one small step into the long-term future, and how our students can benefit from their educational experiences in learning for responsible action, developing capacities to contribute to making a difference in human wellbeing.

As a learning organization, we have the capacity to build on our strengths in narrow research areas to build complex and resilient systems. We can see the importance of biodiversity in all its manifestations, including the human talent diversity that we have assembled and can continue to build. As a department, we recognize the synergies in transdisciplinary teaching as it complements research and extension, ***and that most of the excitement is in the ecotones between our specialties***. In regard to what is needed in education as well as in farming, natural resource management, and food systems, we subscribe to the prophetic words of Pulitzer Prize winning author, microbiologist and environmentalist Rene Dubos that "Trend is not destiny". As creative learning catalysts, we have an incredible capacity for growth and change, and this is what we hope to develop in our students.

On Campus Graduate Education and Training

INTRODUCTION

The Department of Agronomy & Horticulture offers graduate degrees, Master of Science, listed as Agronomy or Horticulture, and Ph.D. offering as Agronomy & Horticulture. These graduate programs have disciplinary options, with areas of specializations that are listed on transcripts, that include; 1) Agriculture Meteorology, 2) Applied Ecology, 3) Crop Physiology and Production, 4) Environmental Studies, 5) Plant Breeding and Genetics, 6) Plant Pathology, 7) Public Horticulture Administration, 8) Range and Forage Sciences, 9) Weed Science. There are 2 paths (Options) that a student can follow in order to earn a Master of Science degree in Horticulture or Agronomy. Option 1 is a research intense, thesis based degree. Option 2 is a project-based and generally considered to be a terminal degree.

The Department's graduate programs are designed to be flexible to meet the student's targeted outcomes. Wherein the requirements mandated by the university's Office of Graduate Studies are typically the framework around which a student will craft their Core course requirements, in consultation with their respective advisory committee. The exception being the Plant Breeding and Genetics specialization, which has expectations that a graduate student completing this program will have competency in areas covered by graduate course offerings that include, Plant Breeding, Genetics and Genomics, Statistics, Biotechnology and Molecular Plant Breeding, Plant Physiology, Biochemistry and Molecular Biology.

The horticulture faculty are proposing revision of both the Option 1 and Option 2 MS degrees in Horticulture that modifies existing entrance requirements for the Option 1 (thesis) program.

For an entering student to be successful in the MS Option 1 research program they should have taken a basic course in genetics and organic and/or biochemistry in addition to the other listed degree prerequisites found on our website under Future Graduate Student. Lab or field experience through internship or work experience is also recommended.

Horticulture Master of Science Option 1 Core (proposed)

One semester of advanced genetics, biochemistry or plant biology ..... 2-4 credits

Select from:

AGRO 807 Plant Water relations ..... 3 credits

AGRO 815A Self-pollinated Crop Breeding (1 credit) +
AGRO 815B Germplasm and Genes (1 credit) +
AGRO815D Cross-pollinated Crop Breeding (1 credit)

AGRO 818 Agricultural biochemistry ..... 2 credits

AGRO 860 Soil Microbiology ..... 3 credits

BIOC 831 Structure and Metabolism ..... 3 credits

BIOS 871 Plant Systematics ..... 4 credits

BIOS 878 Plant Anatomy ..... 4 credits

HORT 810 Plant Molecular Biology ..... 3 credits

One semester (minimum) of physiology or production courses ..... 3-4 credits

Select from:

AGRO 806 Plant Ecophysiology: Theory and Practice ..... 4 credits

AGRO 841 Perennial Plant Function, Growth and Development ..... 3 credits

HORT 813 Turfgrass and Landscape Weed Management (1 credit) +
HORT 840 Turf and Landscape Integrated Pest Management (1 credit) +
HORT 880 Modified Rootzones ..... 1 credit

HORT 824 Plant Nutrition and Nutrient Management ..... 3 credits

HORT 825 Turfgrass Science and Culture ..... 3 credits

HORT 849 Woody plant growth and development ..... 3 credits

One semester (minimum) of seminar (HORT 991 taken the first 2 semesters) ..... 1 credit

Question? – Should we require or just recommend – all students take these anyway.

Two semesters of statistics ..... 8 credits

Master of Science Option 2

For an entering student to be successful in MS Option 2, they should have a project in mind that enhances their current job or job prospects. Many of the courses listed above will also be excellent choices for a program of study.

Horticulture certificates (via distance education)

A certificate in horticulture can serve as a bridge between an undergraduate degree and either of our Master of Science programs or the Master of Applied Science. Each certificate requires 12 hours. The areas of focus are: Advanced Horticulture; Floriculture and Nursery Production Management; Ornamentals, Landscape and Turf (http://agrohortonline.unl.edu/horticulture-graduate-certificates).

Proposed Horticulture - Master of Science Option II – Distance

A total of 36 hours

- If 1 minor then a minimum of 18 hours of course work in Horticulture plus the Graduate Degree project (HORT 894; 1-6 hours (max))
- If 2 minors then a minimum of 15 hours of course work in Horticulture plus the Graduate Degree project (HORT 894; 1-6 hours (max))

Core courses to select from:

Production and business courses

HORT 843	Greenhouse Crop Production	3 credits	Texas Tech
HORT 843K	Advanced Arboriculture	3 credits	Texas Tech
HORT 844 A	Environmental Nursery Production	3 credits	NC State
HORT 844 E	General Viticulture	3 credits	NC State
HORT 888	Business Management for Agricultural Enterprises	3 credits	UNL

Physiology and Plant pathology

HORT 844B	Environmental Stress physiology	1 credit	NC State
HORT 880	Modified Root Zones	1 credit	UNL
HORT 842A or 817	Plant Pathology	3 credits	UNK/ UNL
HORT 842B	Plant Physiology	3 credits	UNK
HORT 824*	Plant Nutrition and Nutrient Management	3 credits	UNL

*Prerequisites organic chemistry and plant physiology

Potential Minor – Entomology – select 9 credits from

ENTO 403/803	Management of Horticultural Insects	3 credits
ENTO 406/806	Insect Ecology	3 credits
ENTO 409/809	Insect Control by Host Plant Resistance	3 credits
ENTO 412/812	Entomology and Pest Management	3 credits
ENTO 810	Insects as Educational Tools	3 credits
ENTO 813	Biological Control of Pests	3 credits
ENTO 818	Insect ID & Natural History	4 credits
ENTO 819	Insect Behavior	3 credits
ENTO 820	Insecticide Toxicology	3 credits
ENTO 826	Scientific Illustration	3 credits

Potential Minor – Plant breeding and genetics – select 9 credits from

AGRO 811	Crop Genetic Engineering	2 credits
AGRO 812	Crop & Weed Genetics	2 credits
AGRO 815A	Self-Pollinated Crop Breeding	1 credit
AGRO 815B	Germplasm & Genes	1 credit
AGRO 815D	Cross-Pollinated Crop Breeding	1 credit
AGRO 816A	Heterosis (Feb. 27-April 5, 2017)	1 credit
AGRO 816B	Haploids & Doubled Haploids (Jan. 9-Feb. 8, 2017)	1 credit
AGRO 816E	Genotype by Environment Interaction (G x E) Feb. 28-April 6, 2017	1 credit
AGRO 809A	Case Studies in Plant Breeding: Disease Resistance Breeding	1 credit
AGRO 809B	Case Studies in Plant Breeding: Transgene Strategies	1 credit

A gap, perceived by some, in Agronomy & Horticulture's graduate program is the limited availability of meaningful in class teaching and laboratory rotation opportunities for graduate students. This hole in the graduate program is partially addressed through the newly established campus wide Complex Biosystems Ph.D. program. This program is designed for the student who is interested in using quantitative computational and statistical methods to address questions in the life sciences. This program has incorporated mandatory laboratory rotations and in classroom teaching experience during the first year of the student's program.

The Complex Biosystems Ph.D. program has multiple specializations, that span a broad spectrum of plant science, including plant ecology and evolutionary biology, plant systems and environmental interaction, and molecular plant breeding.

The challenge remains, however, in offering the student an educational and training experience during their graduate program that prepares them for a workforce that will require a solid disciplinary focus coupled with a diversified, transdisciplinary, team-based training.

Opportunities

- Target continuous improvement and modernization of our on campus graduate education and training to meet the workforce requirements. This will require resources for more in class experiences for our students and additional internship opportunities in both private and public sector arenas.
- Further strengthen our capacity to train students in transdisciplinary, team-based science projects, that incorporates writing and oral communication skills
- Provide resources and opportunities to allow students exposure to skills that will complement their disciplinary focus, be it wet bench techniques, field based research, statistical analysis, experimental design or computational tool sets.


Plant
D

Research Teamwork

INTRODUCTION

The Institute of Natural Resources (IANR) and the Department of Agronomy & Horticulture at the University of Nebraska-Lincoln have had a rich history of team research. In recent years greater emphasis has been place on recognizing and rewarding team efforts. There have been centers formed, team-hatch projects promoted, and hiring strategies to promote teamwork within the department. While only a third of all research grants led by a principle investigator within the department are team-based grants, they account for 90% of the grant dollars for the department. This funding of team research gives faculty the opportunity to address scientific challenges they may not have been able to address individually. These discoveries have the potential to have significant impact on people's lives at the local, state, national, and international levels.

The potential for a team to have greater scientific impact is because teams often develop synergies and complement each other's strengths to accomplish more than if they had been working as silos. While this is ideal, in reality many things can prevent teams from being effective and not maximize their potential impact. The main question we set out to answer in this self-assessment is not to emphasize why we do team research but how we can, as a department, be more effective working within teams to maximize our scientific impact locally, regionally, nationally, and globally.

The team research section of the document describes some of the research within the department and is not intended to be a comprehensive review of all our research. We do not discount the significant impact individual research can have on our department and the whole society, but a review of individual research is outside the scope of this section of the document. Nor does this section focus on all the science that is being conducted within team research. The focus of this document is on the structure of disciplines within the department and highlight how team research occurs within that structure.

Overall document

This overall structure of disciplines within the department and mechanisms that enable team research are summarized in Figure 7.

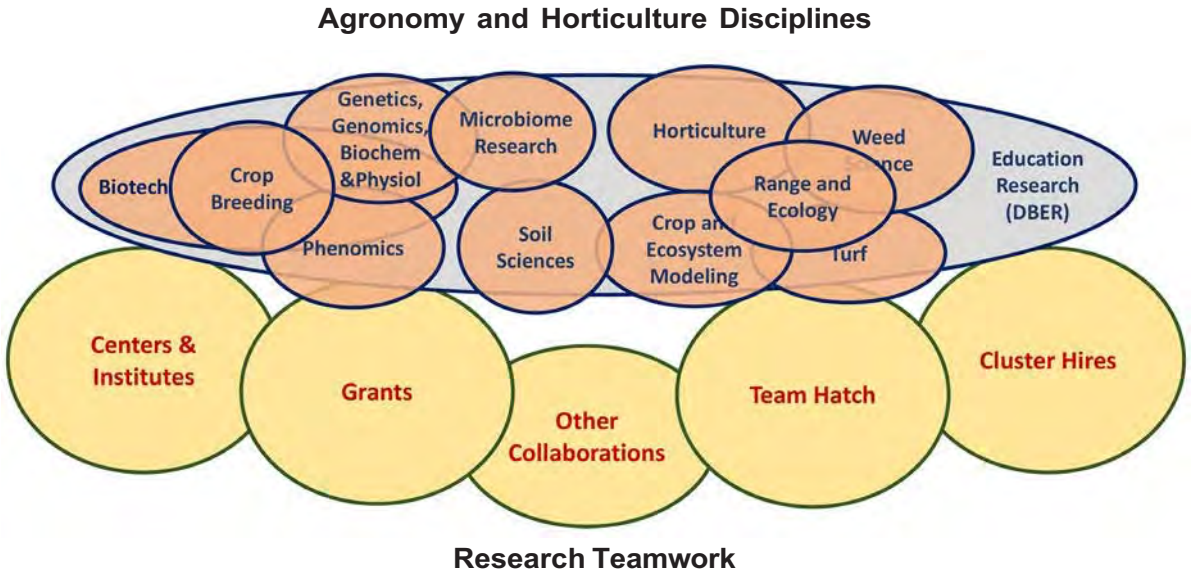


Figure 7. Research disciplines in the Department of Agronomy and Horticulture showing some of the potential overlaps (top). Examples of current overlaps are shown in Figure 8. Modes of team research within and between disciplines are shown at the bottom. Examples of modes are described in the text. Image courtesy of David Holding, Department of Agronomy and Horticulture Associate Professor.

Research Discipline Section

The research discipline section provides an overview of the research capacity within the department's major disciplines and key opportunities within those disciplines. While this is a very traditional, non-interdisciplinary way to look at the department as a whole, there is an opportunity for highly interdisciplinary research. The research occurring across the department spans scales of researching single molecules up to researching the biosphere (Figure 8). Leveraging this research discipline diversity could lead to the department serving as a "hub" department for facilitating interdisciplinary research.

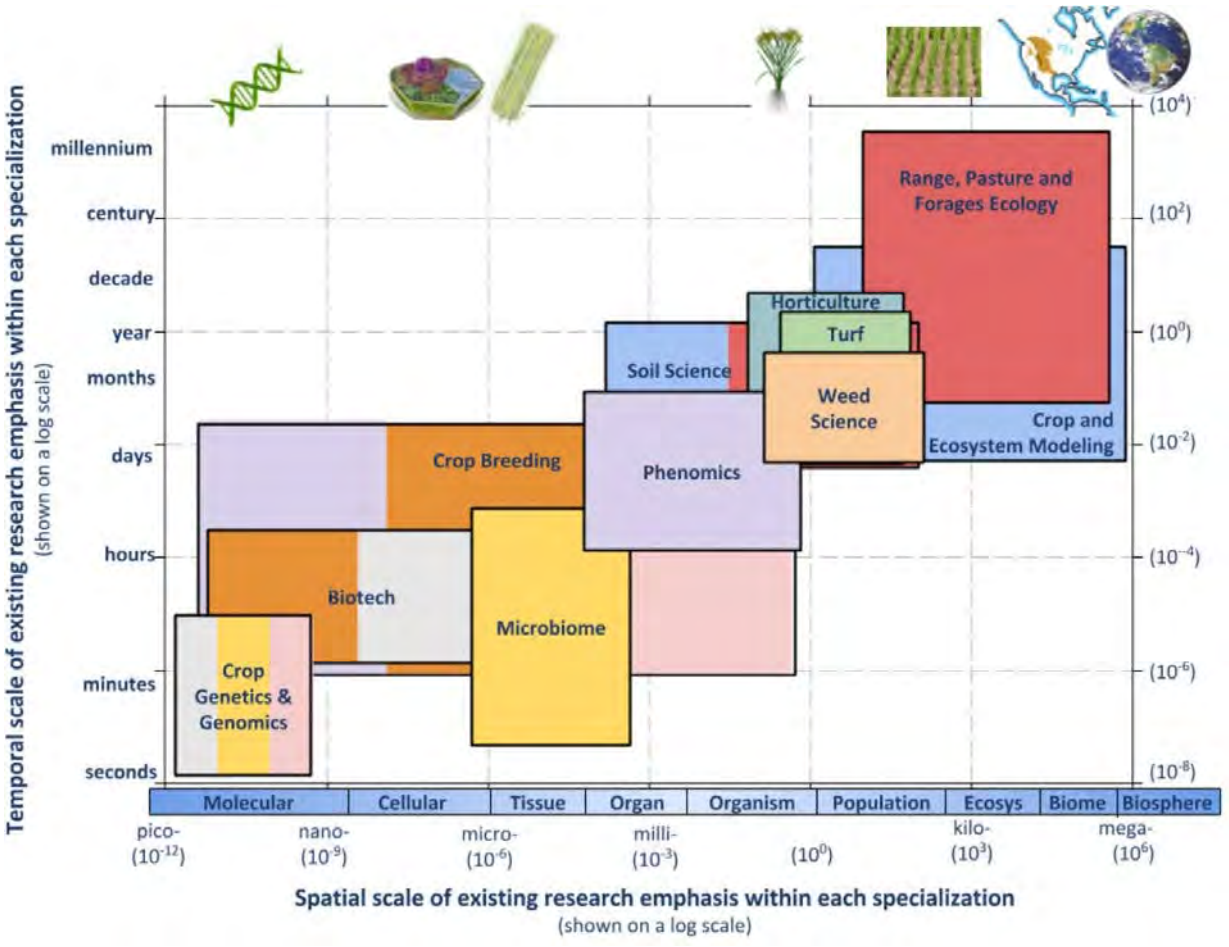


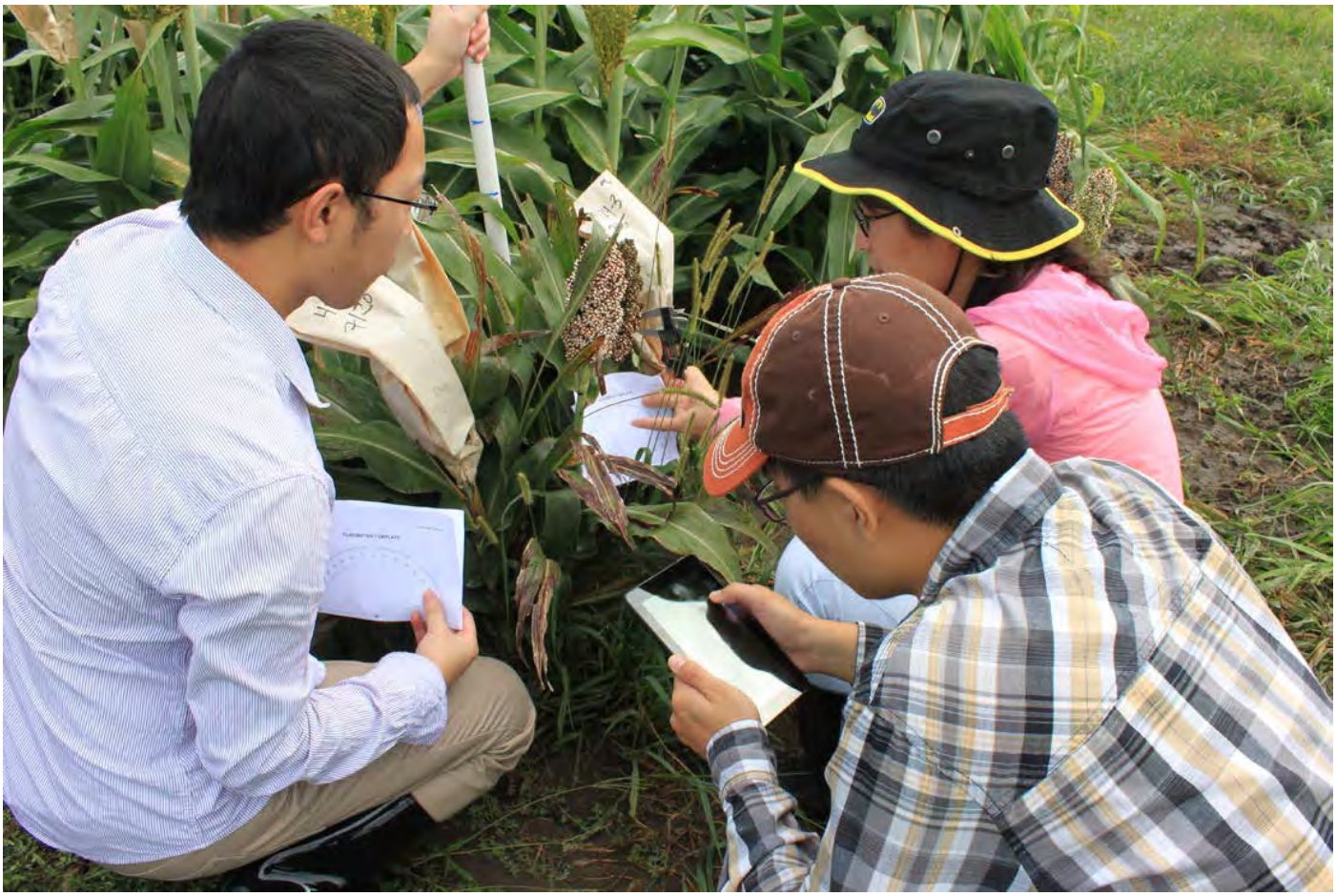
Figure 8. Ecological theory (e.g. hierarchy theory; panarchy theory) has solidly established that biological systems are assembled as a nested hierarchy with emergent structures and functions that result from interactions within and across scales. Changes at one scale of organization have the potential to influence biological function at higher and lower levels of the hierachy. While scientific inquiry has advanced within individual disciplinary specializations at molecular, population, landscape or global scales, a growing gap has emerged in the science of cross-scale interconnections among levels of biological organization and how people interact with those scales to utilize resources for consumption, recreation, or cultural purposes. The Department of Agronomy and Horticulture is in a unique position to serve as a hub for interdisciplinary research and link specializations, both within the department and across other university disciplines, to address cross-scale questions that span the individual specializations operating at scales ranging from molecular levels to the biosphere. Here, we show the existing expertise for each departmental specialization and current interdisciplinary collaborations within the department (*Shown as specializations with shared colors*). Image courtesy of Dirac Twidwell, Department of Agronomy and Horticulture Assistant Professor and Rangeland Ecologist.

Modes of Research Teamwork Section

The modes of research teamwork section of the document describes five major avenues or mechanisms faculty use to conduct team research. These different methods of teamwork lead to collaborations between faculty within disciplines and between disciplines, the diversity within the department could lead to unique collaborations between disciplines that are not occurring currently (Figure 8).

As the review teams reviews the document we have a list of key questions we think need to be addressed:

- How to make team Hatch projects more productive?
- How we can integrate more as a department within and between our scientific disciplines to address even more complex scientific challenges.
- Success in one area of specialization affects other areas of specialization, how do we better integrate and take advantage of the diverse disciplines.
- How can we better address the emerging challenges of food, water, and energy security on regional and global scales?



BIOTECHNOLOGY

Current capacity

The University of Nebraska established the Plant Transformation Core Research Facility (PTCRF) in 1996. The PTCRF provides in-house transformation systems for maize, sorghum, millet, wheat, and soybean. In addition, the Core provides transformation services for the model plant species, Arabidopsis, tobacco and tomato. What sets the PTCRF apart from other public sector plant transformation facilities is its strength in translating novel genetic outcomes from the laboratory to the field. To achieve this, Agronomy & Horticulture faculty led an effort at UNL to establish a field-testing platform for regulated plants. The result is the Plant Biotechnology Field Facility (PBFF) originally established in 2003 on approximately 25 acres of former pastureland located at UNL's Agriculture Research & Development Center (ARDC) suited for both irrigated and dryland testing. In 2014, a second location with a 10-acre footprint was built at the High Plain Ag Laboratory near the Panhandle Research and Extension Center. In 2009, the PBFF participated in an Animal and Plant Health Inspection Service (APHIS) pilot program referred to as the Biotechnology Quality Management System (BQMS). The BQMS is an audit-based compliance assistance program designed to facilitate institutions in addressing USDA/APHIS guidelines governing the movement and release of regulated seed. UNL was certified under the BQMS program in October of 2010. The PTCRF is under the umbrella of the Center for Biotechnology, while the PBFF is overseen by the Agriculture Research Division.

Key opportunities

- Exploit and refine UNL Agriculture Biotechnology Pipeline for the development and testing of novel plant traits derived from the tools biotechnology and precision genomics, which provides a direct conduit from the bench to the field, and with assistance from UNL's Food Science & Technology Unit, downstream processing capacity.
- The innovation potential of the Agriculture Biotechnology Pipeline is exemplified by the dicamba-tolerance technology developed at UNL in the late 90s, in which this infrastructure was instrumental in establishing proof-of-concept. The dicamba-tolerance technology is currently combined with glyphosate-tolerance and being marketed as Roundup Xtend™. It is expected to be used on 17 million acres of soybean in 2017.
- Enable and FastTrack UNL Biotech research while providing expeditious, comprehensive and cost effective, national public plant transformation resources
- Enable new technologies such as gene editing for precise crop design
- Engage in exercises to promote public understanding and acceptance of GM crop technology

GENETICS, GENOMICS, PHYSIOLOGY AND BIOCHEMISTRY

Current capacity

Although molecular genetics has become a broader field in the genomics age, traditional wet bench molecular biology and biochemistry are still critical parts of research in the department. Those faculty whose research is facilitated by the intersection of molecular and genomic approaches include Tom Clemente, David Holding, Daniel Schachtman, James Schnable, Harkamal Walia, David Hyten, Keenan Amundsen, George Graef, Brian Waters, Mark Lagrimini, Jinliang Yang and Paul Staswick.. Genomics has been a unifying factor for our faculty including those coming from molecular genetics backgrounds and those from more traditional breeding backgrounds. We employ genomics methodology for projects covering a wide array of traditional and emerging crops of agronomic and horticultural importance to the state of Nebraska and beyond. Genome resequencing projects in major crops including corn, popcorn, soybean, sorghum, wheat and rice seek to explore the genomic diversity among cultivars and wild relatives, to identify genes that are critical for improving yield, response to stress such as drought, and disease resistance, and to generate markers for breeding selection. For example, James Schnable is generating genome sequencing data from a variety of elite popcorn lines for marker development aimed at revolutionizing popcorn breeding. Novel genome sequencing projects have been initiated in other important crops and horticultural plants, such as turf grass, geraniums, hemp, hops and dry beans to lay the groundwork for discovery

science and the identification of genes that might improve cultivar quality. Faculty are exploiting rapidly improving metagenomics technologies and projects in soils are aimed at understanding the micro-organismal diversity of plant symbionts and to assess the effects of this diversity on plant health and productivity. Transcriptome sequencing using RNA-seq is routine and essential for many molecular labs. For example Brian Waters' group has generated extensive information on how transcriptomes are dynamically regulated by mineral deficiency, soil pH and various mutations in Arabidopsis, melon, soybean. David Holding's group has developed new approaches to generating, mapping and identifying maize deletion mutants using RNA-seq and exome-capture DNA based mapping approaches.

Key opportunities

- By integrating classical molecular genetics disciplines with genomics, biotechnology and emerging phenomics platforms, our diverse department is poised to make inroads into improving input and output crop traits in response to changing and unpredictable environmental conditions, increasing competition for water and increasing demand for food.
- For major crop plants with established genetic and genomic tools, resequencing projects provide SNPs and other markers to help breeding programs make major advancements in yield, nutritional quality, abiotic and biotic stress response, and disease resistance to meet the demands of a growing world population.
- For understudied crops, which currently have little or no genomic resources, we can develop genomic resources as tools for future breeding improvements, as sequencing costs continue to plummet.
- By developing genetic and genomic approaches in horticultural plants, we will provide opportunities for increasing aesthetic appeal such as color, hardiness, and longevity.

CROP BREEDING

Current capacity

Plant breeding at UNL consists of a dynamic and collaborative team, working on diverse plant species with goals ranging from food security to aesthetics. For example, the collaborative USDA-ARS and University of Nebraska Small Grains Improvement Team currently provides new cultivars for Nebraska and much of the northern Great Plains in hard winter wheat, winter triticale (we are a national provider), and winter barley (a regional provider). George Graef leads a premier soybean breeding program designed to exploit genetic diversity in breeding populations and apply modern whole-genome molecular marker platforms to accelerate development of new germplasm and cultivars. Keenan Amundsen develops improved turfgrass, ornamental grasses, and hops cultivars that are regionally adapted to maximize yield and performance in resource-limited environments. Oscar Rodriguez, David Holding, James Schnable and Devin Rose work in breeding popcorn for various agronomic and nutritional improvements. Holding also engages in breeding sorghum for improved digestibility and protein quality developed using gene editing technologies. Ismail Dweikat develops inbred lines in drought tolerant sorghum and pearl millet that are suitable to produce hybrids for grain, forage and bioenergy. Traits of interest include cold and drought tolerance, nitrogen use efficiency, and development of food grade grains. A major goal is to enhance their environmental hardiness to fit Nebraska growers' needs for early planting. Carlos Urrea works to enhance the competitiveness and profitability of the Nebraska dry bean industry by developing dry bean and chickpea cultivars and germplasm that are broadly adapted to Nebraska, the U.S. High Plains region, and that have high yield potential, multiple disease resistance, earliness, upright plant architecture, efficient water use, high seed quality, and high nutritional value. Dipak Santra's primary focus is developing proso millet cultivars by conventional breeding but also breeds alternative crops, field pea, fenugreek and winter canola, sunflower, and camelina for semi-arid the High Plains region. In addition to plant breeding and genetics, the team consists of plant pathologists, entomologists, chemists, bioinformatics and statistical specialists, cropping systems specialists, herbicide and chemical application specialists, and engineers as well as others. We

have excellent linkages to other universities (for germplasm exchange), international centers (for education and germplasm exchange), and commercial companies to extend our reach in marketing and in technology collaboration, and to develop cropping systems of the future.

Key opportunities:

- Cultivar development (for niche markets where companies do not wish to invest, but that advance the industry)
- Developing a public, transparent platform for the development (probably by others) of commercial cultivars
- Breeding for healthy food and feed crops
- Breeding for improved disease and insect resistance
- Development of public databases and knowledge on how to use genomic selection in applied plant breeding (our grants require that we make our information available which is our goal)
- Seeking out new and expanded markets
- Integrating high throughput genomics with phenomics in applied breeding programs
- Training the next generation of plant breeders and related scientists (we are committed to an internationally recognized education program able to globally attract the best and the brightest).

PHENOMICS

Current capacity

Our faculty have been instrumental in starting the plant phenomics efforts at UNL. Infrastructure investments made by UNL to aid in our ability to comprehensively connect genotype to phenotype include two LemnaTec scanalyzers, a 3D conveyor belt system and a HTS cabinet set-up. UNL is the only public sector institution in the US with a fully functional greenhouse-based high-throughput phenotyping system. This gives our faculty a distinct advantage for research and funding opportunities. Because plant phenomics necessitates merging of plant biology, technology/hardware and computational approaches, it has definitely spurred interdepartmental teamwork. There are at least three interdisciplinary/interdepartmental teams working on plant phenomics with significant contributions from AGH faculty. A major initiative is underway to develop a field-based phenomics to have a broad plant/crop phenomics infrastructure. The field-based infrastructure will truly integrate the field-based crop research in the department. The field-based module will help bridge the greenhouse/growth chamber phenotyping platforms with our canopy/landscape phenotyping expertise on campus. This field phenotyping module consist of a one acre footprint, with 134 plots (15' x 20'), each equipped with independently controllable drip irrigation capacity positioned under a robotic wire matrix with the ability to house instrumentation for various data capture technologies. This cable-based phenotyping platform resides at our Agriculture Research Development Center, near Mead, NE. Graduate students involved in the plant phenomics research have benefited significantly from interacting with graduate students and faculty from Statistics, Computational Biologists, Animal Science, Biological Systems Engineering, and Computer Science among others. Increasingly, graduate students from the department enrolling in quantitative/computational courses and developing a computation outlook for biological problems. Due to success in federal funding of plant phenomics team efforts, we have been able to enhance both intellectual and infrastructural strengths for plant phenomics in the department and at UNL. Further, the investments made in this area of phenomics in Nebraska have led to the establishment of a faculty driven transdisciplinary team referred to as the Consortium for Integrated Translational Biology (C-ITB). The C-ITB will strengthen UNL's and our department's ability to translate technologies from the laboratory to the field.

Key opportunities

- Imminent employment of the field-based infrastructure coming with greatly benefit the breeding programs using high-resolution phenotyping for traits of importance to Nebraska.
- Opportunity to become a national and international leader in plant phenomics by further encouraging stronger integration of computational component into crop science.
- Opportunity to explore parallels between crop research and ecosystem research within the department and with school of natural resources.

- Opportunities for interdepartmental curriculum development.

MICROBIOME RESEARCH

Current capacity

The Department has had activities on soil microbes for many years through the contributions of Rhae Drijber. That work focuses on studies of mycorrhizal fungi and their role in cropping and rangeland systems. Past methods to assess community structure have mainly used fatty acids to infer fungal community abundance and structure. In 2014, Daniel Schachtman joined the department and launched an approach to studying soil microbial communities using 16S rRNA amplicons to identify changes in community structure due to abiotic stress and plant root exudate characteristics. Schachtman has engaged a number of the departmental faculty in building his research program including: Greg Kruger, Tom Clemente, Ismail Dweikat, George Graef and Cody Creech. Over the past three years, Schachtman has completed various studies on maize, sorghum, and soybean building a collection currently with 3500 bacterial isolates. There is now a strong and growing expertise in the analysis of 16S datasets and excellent facilities for DNA extraction and sample processing which includes robots and technical expertise on all the methods for sample preparation and DNA extraction.

Key opportunities

- Developing an understanding of how soil microbes impact agricultural production is of major importance to Nebraska agriculture.
- Opportunities for microbes to aid in ameliorating abiotic stresses such as drought, nitrogen deficiency, and iron chlorosis.
- Opportunities to use of microbes for disease and pest control also have great potential.
- Exploration of microbial diversity has potential industrial applications including gene discovery for synthetic biological uses and novel metabolites.

SOIL SCIENCES

Current capacity

The discipline of soil science is well represented by the Department of Agronomy & Horticulture and its adjunct faculty from the USDA-ARS Agroecosystem Unit and the School of Natural Resources (SNR). A major area of focus is to improve nitrogen use efficiency (NUE) by our key agronomic crops of maize, soybean, wheat and sorghum. Technologies centered on crop canopy sensors, precision application and timing, enhanced efficiency fertilizers using inhibitors or coatings, in-season application or fertigation and modeling are used to identify management practices with improved NUE. These efforts are led by Richard Ferguson, Charles Shapiro, Charles Wortmann, Tim Shaver, Bijesh Maharjan and Brian Krienke. A second focus centers on carbon inputs (cover crops, crop rotations, manures and other biosolids, e.g. biochar) and outputs (stover removal by baling and grazing) and their impacts on soil processes, properties, and hence, ecosystem services. Much of this research is in collaboration with USDA-ARS and UNL faculty (Humberto Blanco, Roger Elmore, Rhae Drijber, Charles Wortmann, Chuck Francis, and many others) using on-farm field experiments and multiple long-term research sites to evaluate the effects of tillage, crop residue management, fertilizer and manure management, cover crop use, irrigation, and crop rotation complexity on agronomic performance and soil physical, chemical, and biological properties including soil carbon storage, nutrient cycling, greenhouse gas emissions, soil microbial community structure/function, and persistence of manure-borne pathogens and antibiotic residues/resistance genes. A third focus is to understand how plants and soils alter specific root associated microbial communities (e.g. the plant root rhizobiome) linked to environmental stress resistance, water and/or nutrient use efficiency, and disease suppression, and develop these associations via cropping system management or microbial-plant engineering. Lastly, urban soils and sites of contamination present unique challenges that are being addressed in other ongoing projects: (1) management of concrete grinding residue and post-road construction issues of compaction and salinity; (2) impact of wet/dry and freeze/thaw cycles on the particle size distribution of green roof mixes and precipitation retention; (3) formation and removal of iron

and clay lamella in sand-based, engineered soils; and (4) collaborations with SNR on the fate, transformation and remediation of biocides and other xenobiotics in soils and water.

Key opportunities

- Build on existing strength of interdisciplinary collaborations that allow us to address problems across multiple fronts from the microscale to the landscape.
- Explore aspects of soil health, or soil quality/productivity, related to Nebraska cropping systems – particularly irrigated systems – and interactions with tillage, rotations, cover crops and other management influences.
- Soils, as the foundation of ecosystems, and the existing expertise in the department provide a foundation for studying soil's role in element cycling, primary productivity, above and below ground biodiversity, water and air quality, and a host of other key ecosystem services.
- Managed ecosystems pose significant challenges as we try to balance productivity and profit with sustainability. Teasing apart disturbance impacts, either intentional or due to climate change, on soil processes is difficult; however, with advances in crop/ecosystem modeling as well as real-time crop sensor technology, coupled with greater understanding of plant genome-phenome interactions and the soil rhizobiome we are now better positioned to address future challenges to agronomic and ecosystem sustainability.
- Further expand work on soil ecosystem services specifically including food, fiber, fuel, and feed production as well as maintenance of soil and environmental quality at local, regional, and global scales.

HORTICULTURE

Current capacity

Faculty with research appointments and interest in horticultural specialty crops include Paul Read, Ellen Paparozzi, Stacy Adams, Richard Sutton, Brian Waters, Carlos Urrea, Keenan Amundsen, and Sam Wortman. Research interest and experience among faculty is particularly strong in fruit, vegetable, and herb crops (Read, Paparozzi, Waters, Urrea, and Wortman), but there is increasing capacity for research on beverage crops including wine grapes (Read) and hops (Adams, Amundsen, and Wortman). Research expertise within these broad groups of horticultural crops is also diverse and includes bioinformatics and breeding (Amundsen and Urrea), molecular biology and education research (Waters), physiology (Paparozzi and Read), design (Sutton), and production (Adams and Wortman). This range of expertise, combined with that of the entire department, creates many opportunities for productive collaboration.

Key opportunities

- Opportunities to diversify traditional farm income, provide critical landscape ecosystem services, contribute to economic growth and buffer for volatile commodity prices as the value of agricultural diversification is becomes clear; many farmers in Nebraska are looking for specialty crop solutions to stabilize farm income.
- Diversification opportunities with many crops such as fruits, nuts, and vegetables
- Small business opportunities such as sod growing and turfgrass management; landscape design; viticulture and brewing
- Opportunities to encourage agricultural growth and farming in the state and retain Nebraskan expertise
- Opportunities to satisfy increasing consumer demand for locally grown food and beverages

Despite these market opportunities, many knowledge gaps remain regarding the profitable production of specialty crops for Nebraska growing conditions and farm infrastructures. Thus, UNL is poised to perform the research needed to determine appropriate cultural practices, cultivars, and markets for specialty crops in Nebraska.

CROP AND ECOSYSTEM MODELING

Current capacity

Capacity in crop and ecosystem modeling includes skills for model development, evaluation, and use for decision making. Haishun Yang has developed several

crop and soil models (Hybrid Maize, SoySim, BESS, DK-C&N) and application tools to guide N fertilizer (Maize N; http://hybridmaize.unl.edu/Maize-N) and irrigation water requirements (CornSoyWater; http://hprcc-agron0.unl.edu/cornsoywater/public_html/Home.php). Faculty also apply crop models to benchmark on-farm yield and input efficiencies (Patricio Grassini). A major ongoing project involving crop modeling is the Global Yield Gap Atlas project (www.yieldgap.org) led by Grassini and also involving Yang, in collaboration with Wageningen University (The Netherlands). The project used crop models to estimate yield potential of major food crops. So far, the atlas has been developed for eight crops and more than 50 countries. Another major project is the Yield Forecasting Center, led by Grassini and Yang, which provides real-time estimates of final yield for corn during the summer growing seasons (http://cropwatch.unl.edu/2016/2016-corn-yield-forecasts-approach-and-interpretation-results).

Key opportunities:

- Substantial untapped potential for expanding crop modeling applications into other areas such plant breeding, cover crops, crop-system modeling, spatial framework, and environmental footprint.
- Analysis of cover crop impact on ecosystems services requires an understanding of the whole crop sequence, rather than individual crops, and only crop modeling can account for the multiple interactions between climate, soil, and varieties.
- Opportunities to provide cost-effective tools to monitor real-time productivity and environmental footprint of cropping systems as pressure to monitor environmental footprint increases. Crop models are a powerful tool to explore the link between crop production and environment, especially if combined with a spatial framework that allows upscaling from specific locations to larger regions.

RANGE, FORAGE AND PASTURE SCIENCE

Current capacity

Rangelands and pasturelands occupy approximately 46 percent of land in Nebraska and is the starting point for Nebraska's cow-calf industry. Many of the faculty members therefore collaborate on a national-leading program focusing on (i) the utilization and efficiency of grazing livestock systems and (ii) corresponding ecosystem responses that underlie the economic and ecological sustainability of grazing lands. Walt Schacht and Jerry Volesky have collaborated on long-term research on ecosystem responses (e.g. plant productivity and compositional change, nitrogen cycling, wildlife diversity and abundance) to grazing practices in perennial warm-season rangeland. They have established decade or longer experimental trials at the Gudmundsen Sandhills Laboratory and Barta Brother Ranch. John Guretzky's research focuses on cool-season introduced pasturelands, with an emphasis on use efficiency, nitrogen cycling, and biofuel development. Bruce Anderson has focused on the evaluation of annual forages in irrigated and dryland grazing systems, legume compatibility in grazing systems, and alfalfa variety testing and hay quality assessment. Daren Redfearn joined the department in 2014. His research focuses on the use of crop residues and cover crops into existing beef production systems. Mitchell Stephenson joined the department in 2015 and has initiated research studying grazing distribution and behavior studies, social association patterns of cattle, and stress assessment in grazing systems. All of the above faculty are part of a new Beef Systems Initiative, a multi-institute collaboration including Animal Science, Agronomy and Horticulture, and USDA ARS featuring a systems-thinking approach to advance the science and implementation of beef production systems in today's agroecosystems. Dirac Twidwell's research provides a modern approach to studying rangelands that mirrors a disciplinary shift from grazing-centric foci to one that quantifies their full ecosystem service potential. He joined the faculty in 2013 and has developed leading research quantifying social-ecological tradeoffs to novel change at regional to global scales, assessing statistical indicators that precede the collapse of ecological systems, and quantifying human-driven changes in ecological resilience that have made ecosystems more susceptible, or in some cases less, to collapse as a result of fire, climate change and land use change.

Key opportunities:

Faculty in this area serve as an interdisciplinary nexus for other units within the university and beyond. Team research in the unit spans Animal Sciences, School of

Natural Resources, Computer Science and Engineering, USGS, USDA, EPA, as examples.

- This department is one of the only ones in the nation to host faculty spanning the individual specializations of rangeland ecology with forage crop and pasture sciences, so opportunities exist to employ systems-thinking approaches to advance interdisciplinary pursuits needed to understand the complexity driving productivity and stability of agroecosystems.
- A network of research sites exist in Nebraska's rangelands and pasturelands (http://snr.unl.edu/aboutus/where/fieldsites/fieldsites.asp) that could be linked to university lands in other states and utilized to develop replicated experiments on key research questions across a large geographic gradient.
- Internationally recognized research in the area of resilience theory and management have the potential to be utilized more effectively within the university and great potential exists for the adoption of this research as a Center for Resilience and Policy to better network amongst existing international collaborations and to inform stakeholder groups when managing Food-Energy-Water-Ecosystem Services.
- The group consists of a large proportion of research faculty with partial extension appointments, which has led to excellent programming and dissemination of research in the area of grazing systems. Twidwell's research has provided new in-roads for an extension-based appointment with similar expertise to develop pioneering extension and research in the state, which is being externally requested among numerous federal and state agencies as well as landowner organizations.

WEED SCIENCE

Research capacity

The Weed Science Team is nationally and internationally recognized for research and extension activities. Stevan Knezevic conducts research on critical period of weed control, use of flaming for weed control in organic agriculture, and management of herbicide-resistant weeds. John Lindquist's research focuses on mechanisms of interplant competition, plant population biology, and ecological weed management. Greg Kruger is conducting research on pesticide application technology and how it affects pest management and pioneering the use of tools such as low- and high speed wind tunnels. Amit Jhala, is conducting research on pollen-mediated gene flow from crops and weeds, and the role of wind speed and direction on the spread of resistant weeds, management of herbicide-resistant weeds, and risk assessment of multiple herbicide-resistant crops. Cody Creech is leading projects for weed control in field peas, wheat and other crops in the Panhandle. Rodrigo Werle has initiated research on impact of soil applied herbicides on weed emergence and growth, potential of cover crops as a weed suppression tool, and termination of cover crops. Nevin Lawrence is focusing on management of glyphosate-resistant kochia in the Nebraska Panhandle using crop rotations, improving early season weed control following the transition from conventional to no-till agriculture, expanding options for late season weed control in dry bean and sugarbeet, and assessing what impact climate instability has on weed communities, and weed control in rangeland, riparian, and natural areas. Chris Proctor has initiated research on the impact of cover crops in corn-soybean cropping systems, biology and emergence pattern of horseweed as well as weed management recommendations. Cole Thompson is developing integrated turfgrass pest management strategies that reduce reliance on pesticides through better understanding ecological aspects of pest prevalence, factors that affect pesticide efficacy and safety.

Key Opportunities:

- Work as a team to understand and manage evolved glyphosate resistance in six weeds affecting corn and soybean in eastern Nebraska sugar beet, dry beans, peas, and other minor crops in the Panhandle, and several million acres under rangeland and pastures.
- Exploit potential of weed scientists at different locations across Nebraska to conduct weed science research in various crops, cropping systems, and climatic zone of Nebraska.
- Utilize wind tunnel technology to study potential herbicide drift with variable wind speed/nozzle size and exploit its potential to provide opportunities for public-industry-government partnership.

TURFGRASS

Current capacity

Turfgrass science team at UNL is a nationally recognized leader among turf. Currently, four research faculty address basic and applied-knowledge gaps in the turfgrass industry. Each of the team members is forward thinking in their individual disciplines, and play key roles leading or supporting important regional work. Keenan Amundsen uses molecular genetic tools to characterize conditional responses among turfgrass varieties and applies that information to efficiently develop improved cultivars through conventional breeding. Amundsen is also regarded as the premier turfgrass bioinformatics expert in the country. Roch Gaussion is evaluating the potential use of nutraceuticals extracted from amenity grasses and working with the Schachtman Lab to characterize the microbiome associated with turfgrass systems. Gaussion is best known for his nearly two decades of research into organic matter management in turfgrass systems. William Kreuser conducts research focused on turfgrass physiology and ecology including turf response to abiotic stress, exogenous applications of turfgrass growth regulators, and factors that impact growth rate. Kreuser is a leader in the use of plant growth regulators in managed turfgrass systems. Cole Thompson conducts research to optimize cultural practices used in turf management to maximize turf health and minimize irrigation, fertility, and pesticide inputs. Thompson specializes in turfgrass systems management which is a departure from traditional turfgrass management focused solely on keeping the turf healthy. Due to the strong extension programming of the team and interaction with stakeholders, they are able to identify issues quickly, direct research to address those issues, and develop educational tools to help their stakeholders manage turfgrass more efficiently.

Key opportunities

- Exploit the congenial, collaborative and innovative nature of the turfgrass team for future productivity. Faculty actively pursue joint projects important to the turfgrass industry, and that also mutually benefit and support their individual research programs.
- Pursue a project focusing on understanding how cultural management of various turfgrass cultivars influences the microbiome in a managed turfgrass system and each member of the turfgrass science team will play a role in the project. The information gained will direct future research that will ultimately lead to improved management practices, benefiting the entire turfgrass industry.
- Continue to innovate and utilize current social media for spreading new research and extension insight in turfgrass management

TEACHING AND EDUCATION RESEARCH

Current capacity

Several of our Faculty are interested in or actively engaged in Discipline-based education research (DBER). DBER research has the practical goal of improving science and engineering education for all students. The capacity for DBER research in the department is currently small, but is on an upward trajectory. Some DBER activities are informal research activities for the instructor's specific course, while other activities are formalized research with IRB protocols in place. One resource we have is a staff member with a PhD in Educational Psychology, Carol Speth. Carol is assisting faculty members Don Lee, Leah Sandall, and Humberto Blanco conduct research on the effectiveness of certain activities in their courses. Carol can provide expertise with the IRB approval process in addition to survey and other instrument development and data analysis. Don Lee is researching how students and other users of online educational resources makes use of and is impacted by these resources. Lee also studies student learning and problem solving strategies in Genetics. Pilot studies are underway to compare online and in-person student learning in Genetics, Plant Science, and Soil Science. A third thrust of Lee's DBER research is to measure student behavioral and attitude responses to writing projects in Plant Science. Sam Wortman is collecting survey data in his HORT 221 class to determine if student performance on outcome-driven exam questions is consistent with self-reported student perceptions of learning related to the same outcome. He plans to use the results of this education research to help faculty to develop practical tools for measuring teaching impact and learning outcomes.

Key opportunities

The long-term goals of DBER are to

- Understand how people learn the concepts, practices, and ways of thinking of science and engineering;
- Understand the nature and development of expertise in a discipline;
- Help to identify and measure appropriate learning objectives and instructional approaches that advance students toward those objectives;

Contribute to the knowledge base in a way that can guide the translation of DBER findings to classroom practice; and

- Identify approaches to make science and engineering education broad and inclusive.

There are vast opportunities to achieve these goals in the department. The University of Nebraska DBER Group (http://www.unl.edu/dber/home) began in 2011, with additional faculty added over the following years. There are DBER faculty in the Center for Math, Science, and Computer Education; the Department of Earth and Atmospheric Sciences; the Department of Chemistry; the School of Biological Sciences; and the School of Natural Resources.

- In 2017, Brian Waters became the first official DBER faculty in the department and is studying 'writing-to-learn' and 'reading-to-learn' methods in the plant science and agriculture fields.
- Identify faculty barriers to using writing-to-learn and developing instructional approaches to overcome those barriers.
- Exploit the network and resources of the existing UNL DBER groups to rapidly learn and adopt DBE research approaches and form collaborations.
- Partner with faculty such as Sydney Brown in Innovative Instructional Design to gain assistance with research approaches and instructional technologies.

The disciplines described previously are integrated through several different mechanisms of teamwork described below and schematized in Figure 7.

CENTERS, INSTITUTES AND INITIATIVES

In addition to the previously described Research and Extension Centers, five campus-based centers which department faculty are involved with are described here.

Center for Plant Science Innovation (PSI)

Background, Vision and Mission

PSI brings together faculty from Agronomy and Horticulture, Biochemistry, Plant Pathology and the School of Biological Sciences who work research focused basic and applied research relating to crop improvement combining traditional molecular genetics and breeding practices with cutting edge genomics, phenomics and bioinformatics tools. Most PSI faculty are physically housed in the Beadle Center for Biotechnology although continued expansion of membership has resulted in a cross campus footprint. PSI hosts a yearly plant science symposium alternating between Nebraska City and on campus at UNL which attracts internationally renowned speakers and plant science delegates from UNL and across the Midwest. PSI also has a monthly faculty meeting followed by a group research meeting which is open to the public in which one or two groups present their latest work and is followed by informal discussions with refreshments. PSI is directed by Edgar Cahoon and assisted by an internal advisory committee meeting at least quarterly.

The vision for PSI is 'Improving Nebraska and global well-being through innovative plant science research and education'.

The mission of the Center for Plant Science Innovation is to:

- Enable innovative plant biology research,
- Facilitate the translation of basic discoveries into applied technologies that improve crop productivity and quality,
- Foster a collaborative environment that bridges unit, department, campus, state, and national boundaries,
- Promote scientific education and professional development of students, staff, and post-doctoral scientists, and
- Improve public understanding of modern plant science research and its societal importance.

Productivity, success and methods for improvement of PSI

All PSI members collaborate with other PSI members have extensive networks of collaborations with other departments and outside UNL. In terms of grant dollars brought in per capita, PSI is one of the most productive centers within UNL. Despite this success, there is still much room for improvement and deepening of collaborative work within PSI and UNL and outside UNL as PSI expands and evolves and research priorities and technology shifts. To address this, PSI underwent a comprehensive external review in 2015 and this was followed up in 2016 by an in depth strategic planning exercise, facilitated by a professional company, to capitalize on the suggestions from the review. The outcomes of this strategic plan are currently being finalized for implementation by all PSI members.

Center for Integrative Translational Biology (CITB)

Mission

Create a transdisciplinary environment to address the genotype to phenotype gap through the development of integrative predictive models for the selection of valuable traits that address yield, protection of yield, and quality traits across plant species used for food, feed, industrial applications and landscape resources. This focus is directed towards facilitating translation of innovations to the field. Agronomy and Horticulture faculty who have been instrumental in the initiation and progress of CITB are Tom Clemente, Harkamal Walia, George Graef, James Schnable, and Daniel Schachtman.

Productivity and challenges

Approximately two years ago, CITB made the decision to devolve most of its activities to sub-teams focused on individual steps of translating genotype to genotype. Some of these teams have been quite productive, producing publications, submitting several interdisciplinary grants including department faculty. The experience of the Consortium has also highlighted several challenges faced by large multidisciplinary collaborative groups. First, there are dependencies across the different goals of the consortium. As a result, development and validation of methods for early data generation steps creates a bottleneck for development and validation of downstream steps. For example, developing integrative phenotype predictive models and testing the applicability of trait measurements and models in crop breeding for agronomic and quality traits depends on the progress of efforts to improve plant phenotyping methods. Secondly, the consortium currently lacks effective mechanisms to incentivize participants to share data and methodologies developed as part of their work for the consortium prior to publication, exacerbating the issue described above. Developing effect solutions to these two challenges will assist both CITB and other multidisciplinary centers, initiatives, and consortiums in which Agronomy & Horticulture faculty are engaged.

Water for Food Institute

The Robert B. Daugherty Water for Food Global Institute at the University of Nebraska was established in 2010. Its mission is to have a lasting and significant impact on achieving more food security with less pressure on scarce water resources, by conducting scientific and policy research, using the results of research to inform and advise policy makers, and educating the necessary human talent.

Agronomy and Horticulture has many faculty who play active roles as fellows of the Water for Food Institute and whose work is directly relevant to the mission including Stephen Baenziger, Guillermo Baigorria, Roger Elmore, Roch Gaussoin, Patricio Grassini, Martha Mamo, Teshome Regassa, James Schnable, Harkamal Walia, Charles Wortmann, Haishun Yang, Daniel Schachtman, and Tim Shaver.

Food for Health Initiative

The Food for Health Collaboration Initiative is a comprehensive effort to further enhance Nebraska's research capacity to address critical societal and human health issues related to food. NU is making an investment to facilitate research collaborations that encourage faculty to more fully leverage its multi-campus intellectual capacity in order to strengthen competitiveness for federal research funding. Nebraska EPSCoR also is investing so that all Nebraska research institutions with relevant expertise may strategically partner to grow the state's research capacity and competitiveness. The Nebraska Food for Health Center, a more than $40 million initiative to improve lives

of people around the world, was approved June 1, 2017 by the Board of Regents. Active participants from among the Agronomy and Horticulture Faculty are James Schnable, David Hyten, Devin Rose, and Thomas Clemente.

QUANTITATIVE LIFE SCIENCES INITIATIVE

The Quantitative Life Sciences Initiative at the University of Nebraska was established in 2013 to enhance and enable data-driven discovery in the life sciences. The Initiative advocates for high-performance computing and analytical resources, leads faculty hiring in quantitative areas relevant to the life sciences, hosts workshops and conferences on topics in data science, and fosters interdisciplinary research and training by connecting faculty across disciplines. The Initiative is the primary campus link to the Midwest Big Data Hub and ORCiD.

Agronomy & Horticulture is a partner in many Initiative activities including teaching and advising in the PhD program in Complex Biosystems, participating in the CITB data analysis group, and presenting at Initiative events. Active participants include James Schnable, Daniel Schachtman, Jeffrey Mower, Tom Clemente, Juan Diego Hernandez Jarquin, Brian Larkins, Sophie Alvarez, Keenan Amundsen, and Rhae Drijber.

BEEF SYSTEMS INITIATIVE

Nebraska has a unique combination of forage and water supply, crop and ethanol production, and feeding and packing infrastructure that makes it a world-leader in beef production. However, Nebraska is producing beef products below its potential capacity for two primary reasons: 1) efficient utilization of native rangeland as sources of feedstuff for beef cattle is less than its potential and 2) corn stover and cover crops are under-utilized. A concerted statewide research and extension effort, referred to as the Beef Systems Initiative, has been developed and funded by IANR ($1.5 million) to improve the utilization of rangeland, pastures, crop residues, annual forages, ethanol co-products, and cover crops to optimize Nebraska beef production in an economically and environmentally sustainable manner. Specifically, the goal of this initiative is to develop and support implementation of beef production systems that optimize feed resource use, natural resource conservation, and producer success in Nebraska through improved management of perennial grasslands and systems of integrated crop-beef cattle production.

The Center for Grasslands Studies is the administrative home of the initiative and a team of interdisciplinary faculty is the steering committee. Two of the major thrusts of the initiative are led by faculty members of the Agronomy and Horticulture Department. Dr. Mitch Stephenson is the director of the project focusing on grazing efficiency and productivity of perennial grassland systems and Dr. Daren Redfearn is the co-director of the project dealing with integrated crop-beef cattle systems. Other faculty members in the Department of Agronomy and Horticulture who are actively involved in the initiative include Drs. Walter Schacht, Jerry Volesky, Humberto Blanco, and Roger Elmore.

GRANTS

Faculty in the department currently serve as the Lead Investigator for 160 grant awards totaling $121,128,422. We used these grants to assess the relative involvement of team-based award activity (multi-investigator grants) versus individual awards (single investigator grants). Team grants account for 89.7% of total funds ($108,639,047) from 59 awards (36.9%). Individual grants account for 10.3% of total funds ($12,489,375) from 101 awards (63.1%). These numbers only consider faculty-led grants and do not account for the high number of grant awards with faculty in the department serving as Co-PIs, which would further bolster numbers for team-based grant activity.

Figures 9–14 illustrate departmental trends in research proposals, receipt of grants and research expenditures over the past five years. Figures 9 and 10 illustrate Agronomy and Horticulture trends in total research expenditures and industry research expenditures relative to other IANR units. In FY16 total research expenditures in the department were around $20 million. Figure 10 illustrates the critical nature of industry funding for Agronomy and Horticulture faculty relative to other units in the Institute. The role of industry funding in supporting critical, applied research has grown substantially over the past five years. Figure 11 is the trend in total research proposals and awards per research FTE in Agronomy and Horticulture, while Figure 12 is the trend on average for IANR units.

Over the past three years Agronomy and Horticulture proposals have declined from a significant peak of over $1 million per FTE in FY13, but current departmental averages in both proposals and funding per FTE are similar to IANR averages. Figures 13 and 14 illustrate total research expenditures per research FTE for Department faculty and IANR faculty, respectively. In FY16 total research expenditures per FTE in the department exceeded $200,000, above the IANR average. Source for Figures 9–14: University of Nebraska–Lincoln Office of Research and Economic Development (ORED) 2016.

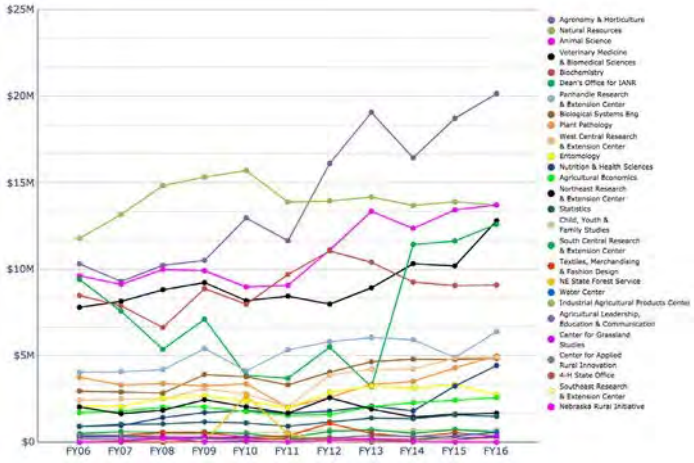


Figure 9. IANR total research expenditures by unit.

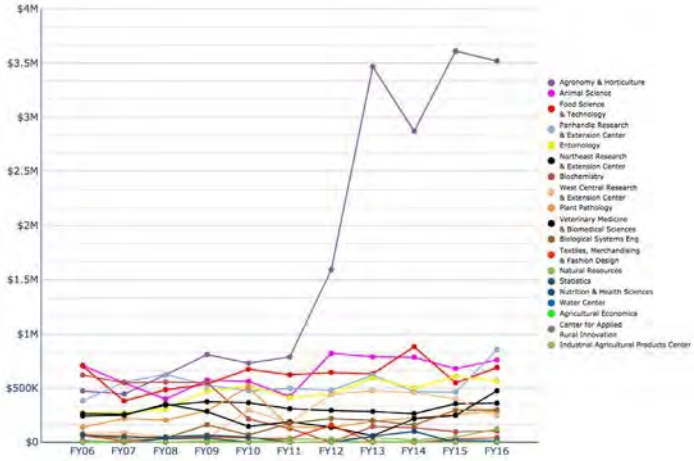


Figure 10. IANR industry research expenditures by unit.

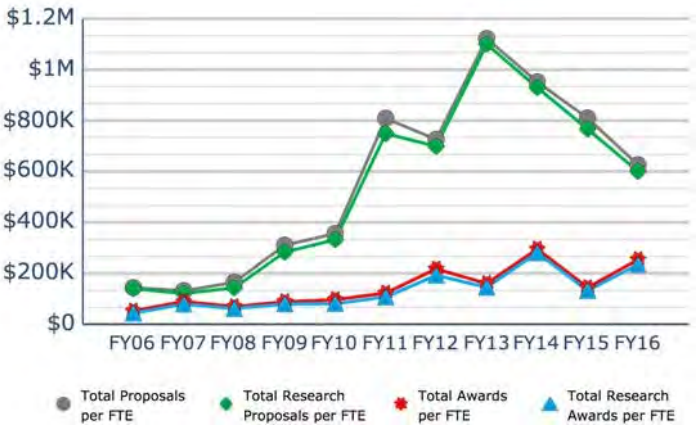


Figure 11. Department of Agronomy and Horticulture proposals and awards per FTE.

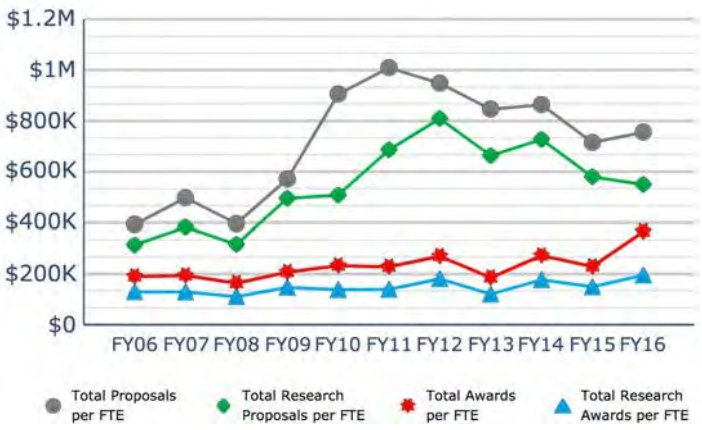


Figure 12. IANR proposals and awards per FTE.

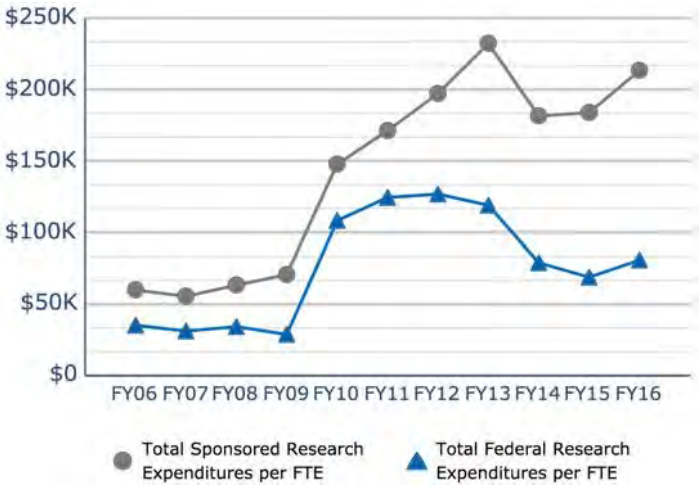


Figure 13. Department of Agronomy and Horticulture research expenditures per FTE.

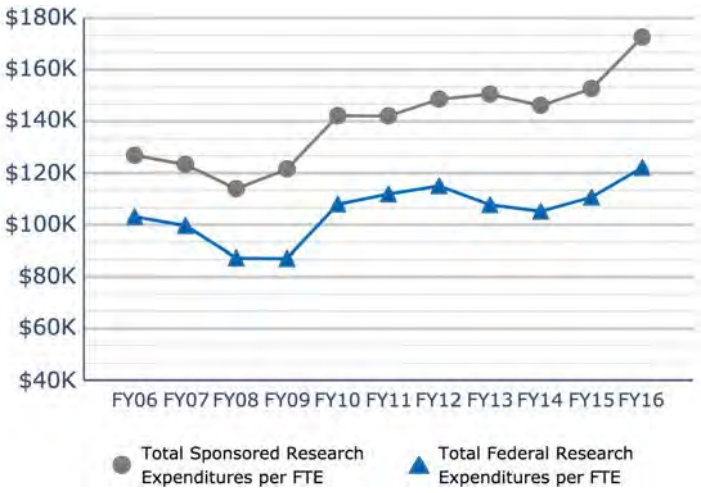


Figure 14. IANR research expenditures per FTE.

DOE-BER Grant

Systems Analysis of the Physiological and Molecular Mechanisms of Sorghum Nitrogen Use Efficiency, Water Use Efficiency and Interactions with the Soil Microbiome

5 Years – approximately $14.5 million awarded

Daniel P. Schachtman, University of Nebraska-Lincoln (Principal Investigator)

Institutions represented

Boyce Thompson Institute, Clemson University, Colorado State University, Donald Danforth Plant Science Center, Iowa State University, Joint Genome Institute-DOE, University of Nebraska-Lincoln, UNC-Chapel Hill, Washington State University

Goals

The goal is to establish a foundational, systems-level understanding of plant, microbial, and environmental interactions that will lead to strategies for enhancing growth and sustainability of sorghum through genetic and microbial adaptations to water and nitrogen limited environments.

What's working and current challenges

Overall many members of the group are highly collaborative and engaged. One group has been less engaged, but recently contributed important and potentially highly important reagents for ongoing work. Certain members of the group have been difficult to work with while others have been a dream. One member left the grant for personal reason and one of the members of the grant was asked to resign because of poor performance and an overall lack of understanding of the goals of the grant. Many of the group members work together and collaborate with each other. As the project moves forward there will be good productivity. Running this grant does take up a major part of the time of PI Schachtman time and the Dean and Vice Chancellor have provided funds to hire a project coordinator who has become very important to the project and has taken up a great deal of responsibility for coordination. Another unexpected benefit has been increased connectivity with other groups and scientists to collaborate. For example, Schachtman started a microbiome program in 2014 from scratch with little expertise. No one at UNL had much expertise and the grant has resulted in Schachtman collaborating with two of the most well-known and knowledgeable scientists in the plant metagenomics field in the USA. They routinely provide protocols and suggestions on how to improve things. Working on this grant with many excellent scientists in Nebraska and across the USA has been a highlight in Schachtman's career.

Center for Root and Rhizobiome Innovation

Vision

CRRI will provide innovative and sustainable solutions for enhanced Nebraska, US, and global crop production by probing the interface of root metabolism and the soil microbiome.

Goals

CRRI will develop a systems level understanding of root metabolism and its influence on interactions with soil microbes, determine how these interactions are affected by genetic variation and environmental perturbations, and use this information for iterative, synthetic re-design of root metabolism to promote plant health and beneficial root-soil microbe interactions. This mission will be accomplished through the following specific aims:

1. Develop a systems-level understanding of root metabolism in maize by comparative analysis of plant omics data and genetic variation leading to construction of predictive metabolic network models;
2. Quantify the chemical diversity of root exudates across maize genotypes and the impact of this diversity on rhizobiomes;
3. Develop and implement synthetic biology tool sets in maize to predictably alter root metabolism to: a) test hypotheses of the role of exudates on root-rhizobiome interactions and plant performance and b) refine systems-level understanding of roots;
4. Assess the effects of variant root exudate compositions on performance of plants and their rhizobiomes in response to abiotic stresses under greenhouse and field conditions.

Challenges

1. Recruitment of high caliber root biologist and synthetic biologist faculty members.
2. Establishment of predictive models of maize root metabolism.
3. Identifying links between chemical diversity of root exudates and maize genetic diversity.
4. Linking chemical diversity of root exudates with compositions of root microbiome populations.
5. Development of high throughput methods for evaluation of synthetic biology tools and designs in maize.

Non-Competitive Industry Funding and Gifts

The department has a long standing history of alumni benevolence via the NU Foundation and industry donations that are less specific in nature than relatively larger grants targeted to specific hypotheses and outcomes. True gifts are not charged indirect costs and, currently, industry grants meeting certain criteria, are charged minimal indirect costs. For the faculty whose research does not lend itself to large competitive grants these funds and gifts are critical to the success of their research enterprise and provide the flexibility to support graduate students, postdocs, student labor, travel and equipment. For the period 2012-2017 the NU Foundation has returned $2.95 million either as interest from endowed funds, including professorships, or alumni donations. Industry funds were slightly higher during this time frame totaling $2.99 million. In addition to general operating including travel and equipment, approximately 19 graduate students and 4 postdoc FTE have been supported with these funds. While these funds are often not considered as newsworthy as large competitive grants, the funds provide resources to target essential, applied, problem solving solutions for Nebraska and the regions producers and consumers. Examples include multi-state collaborative efforts in identification and management options for weed resistance, remote sensing and nitrogen management, and small grain improvement.

TEAM HATCH PROJECTS

Hatch Projects refer to the 5-yr research plans that can be individual or team projects. In recent years, there has been increased emphasis on Team Hatch Projects to further collaboration among researchers to work on interdisciplinary projects of common interest, reduce the administrative review and approval process, and reduce the reporting load on individual scientists who now contribute to one annual Hatch report. The first team Hatch approved in IANR was led by turf faculty in the department. Currently, the Department has 18 Team Hatch

Projects on related timely topics. The success of the team Hatch projects depends on internal and external funding support to deliver their goals. An increasing challenge in research is successfully funding long-term experiments. Most calls for proposals are for relatively short duration projects, although IANR funds are often available for start-up activities or bridge funding. Long-term trials are difficult to sustain.

An example of a team Hatch project is the Long-Term Diversified Systems in NE Agroecozones Hatch project, which involves twelve scientists within our department working together with Entomology, Agricultural Economics and Natural Resources on long-term experiments with the goal of improving collaboration among administrative units. This team covers four agroecoregions in Nebraska, and includes faculty with assignments in research, teaching and extension. The team has written several grant proposals, with limited success to date. The project has produced several collaborative writing projects for publications, with information useful for extension and teaching. The team continues to seek appropriate grant sources, recognizes that a team can pool technician and field support to advance the research, and considers this a step toward greater efficiency in our statewide efforts for study of long-term mechanisms and performance by innovative farming systems. It is a challenge in today's funding environment to acquire support for long-term research, and for investigation that does not lead to patentable products. Outputs from this project include recommendations for location-specific rotations, appropriate cover crops, management methods to efficiently use water, and holistic evaluation of results including economic resilience and ecosystem services derived from farming.

STRATEGIC HIRES AS A RESULT OF THE IANR INITIATIVE

As previously described, in 2001 the IANR embarked on an extensive review and planning exercise to evaluate opportunities and challenges that could be addressed by strengthening the faculty in IANR. Five priority areas of focus for education and research in IANR were identified: 1) Stress Biology, 2) Computational Sciences, 3) Healthy Agricultural Production and Natural Resources Systems, 4) Healthy Humans, and 5) Science Literacy. Thirty-seven faculty members were hired in 2013-14 to strengthen these five areas. The total apportionment across these positions in FTEs is 8.4 in teaching, 19.0 in research, and 5.9 in extension. A second phase of planning and hiring similar to the first was begun in 2014, and a sixth priority area was added – Drivers of Economic Vitality for Nebraska.

The second round of hiring filled 27 additional faculty positions. The total apportionment across Phase 2 positions in FTEs is 5.4 in teaching, 14.9 in research, and 5.0 in extension. Additional faculty positions have been filled during both Phase 1 and Phase 2 to ensure that other vital areas of education and research in IANR are not neglected. From January 1, 2012 through late FY 17 the total number of tenure-line faculty positions in IANR filled, or being filled, is 143, of which 65 are new faculty positions within the Institute – an increase of 24% in the total number of tenure-line faculty members in IANR.

In the Department of Agronomy and Horticulture twelve faculty were added through this hiring strategy.

These faculty were targeted to increase research capacity within IANR and to facilitate team research within and across departments. An example of a strategic "cluster" hire is the DWFI Water Cluster provided below.

DWFI Water Cluster

Goal

These faculty were hired to assist DWFI in addressing the "…global challenge of achieving food security with less pressure on water resources through improved management and use of water in agricultural and food systems…" with the goal of ensuring "… sustainable global food security in the face of a changing climate and the growing demand for scarce water resources to meet other human and environmental needs (DWFI Strategic Plan, 2013)."

What is working

This cluster consists of six faculty including a Crop Simulation Modeler; two Cropping Systems Agronomist; Hydrogeophysicist; Irrigation Engineer; Hydroinformaticist; and a Crop and Ecosystem Modeler. Faculty within this cluster have interacted with other cluster members on multiple grant proposals and publications. The cluster faculty have also interacted with other faculty within the

University of Nebraska academic community, generating project and journal publications and confirming the synergism created by this effort.

Current challenges

This is a large team in diverse academic units, each unit with different expectations and measures for productivity. The team recognizes that although it can and has met and worked together frequently, individual interests in the team are specific enough that the team, in total may never all interact on the same research proposal or project.

OTHER COLLABORATIONS

The above four modes of collaboration including centers, grants, team hatch projects, and strategic hires allow productive and overlapping teamwork at the department, university, state, national and international levels. In addition, our faculty are engaged in many well established long-term and fledgling national and international collaborations, some of which develop into funded projects and others are successful and productive without federal or private funding support. The extent of these regional and global collaborations are shown in Figures 15 and 16. One example of such ongoing collaboration is between David Holding and Joachim Messing at Rutgers University who together characterized the molecular identification of the high digestibility high lysine sorghum variant and may lead to the improved utilization of the crop for food and feed purposes. This research was published in Nature Communications in 2013. An example of a productive international collaborative effort is among Humberto Blanco at UNL, Mehmet Parlak at Canakkale Onsekiz Mart University in Turkey, and Alvaro Da Silva at the University of São Paulo, Piracicaba, Brazil, who have been studying impacts of tillage and crop management and rangeland improvement practices on soil quality, soil erosion, and carbon footprints. This collaborative research has resulted in various journal publications in Geoderma, Catena, and Soil Use and Management.

SUMMARY

The primary focus of this section of the review document has been on research teamwork in the Department of Agronomy & Horticulture at the University of Nebraska-Lincoln. The document highlights how team research is being conducted across different disciplines, centers, institutes, initiatives, grants, team-hatch projects, and clusters. Research disciplines in the department include Biotechnology, Crop Genetics and Genomics, Crop Breeding, Phenomics, Microbiome Research, Soil Science, Horticulture, Crop and Ecosystem Modeling, Range, Forage, and Pasture Science, Weed Science, and Turf (Figure 7). This long list reflects how broad our Department is and portrays the diverse yet interconnected nature of the disciplines within a single department. Team research is occurring from molecular level to landscape and ecosystem levels (Figure 8). While a thorough review of how team research is being conducted within each discipline may be difficult and outside the scope of this document, it is clear that team research is being emphasized through the numerous Centers, Institutes and Initiatives as well as through multi-disciplinary successful grants, recent team-Hatch projects, and new faculty. The increasing number of team-Hatch projects, clusters, and interdisciplinary grants shows the emphasis on team research. Also, the many state, national, and international collaborative efforts, both funded and unfunded (Figures 15 and 16) reflects that team research is occurring not only within but also outside of Nebraska, which highlight the local, national, and global prominence of the department. In addition, the numerous key opportunities listed within each discipline encompass forward-looking ideas and new initiatives designed to further enhance team research for delivering timely information and technologies to meet the growing local, regional and global demands. While team research in the department is set to reach new heights, some challenges exist including: how to better integrate research within disciplines, how to make team hatch projects more successful and impactful, how to better integrate the diverse yet interconnected disciplines to address even more complex scientific challenges, and how to more effectively address regional and global challenges of food, water, and energy security under the new scenarios of increasing demands for information and technology.

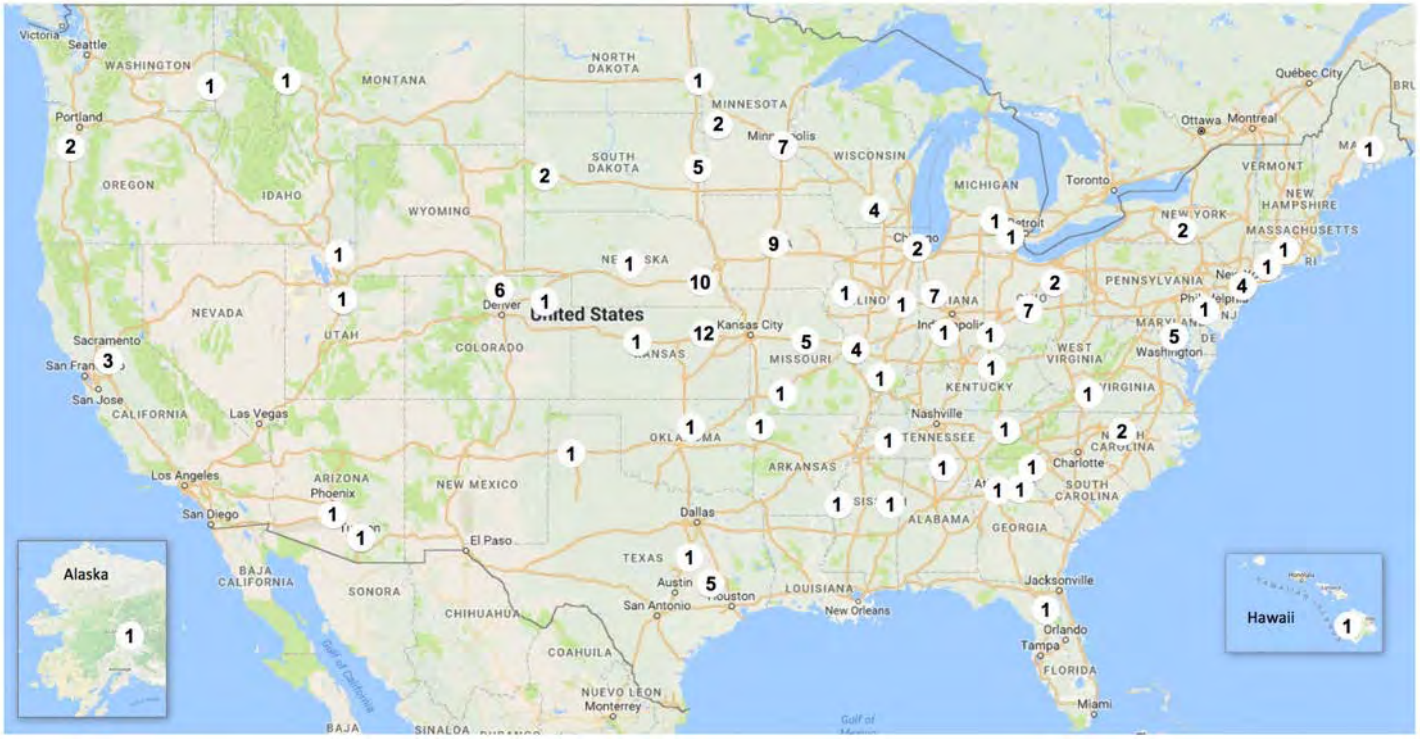


Figure 15. Partner institutions in research projects within the US. Numbers in symbols indicate number of projects. Source: Departmental faculty survey.

Figure 16. The following symbols indicate funding and if interdisciplinary. Funded by grant and interdisciplinary. Funded by grant and not interdisciplinary. Not funded by grant and interdisciplinary. Not funded by grant and not interdisciplinary. Source: Departmental faculty survey.

Research Teamwork

Extension Teamwork

INTRODUCTION

Although this information may have been presented earlier, it is important to repeat because nearly all of the faculty in the Department of Agronomy and Horticulture have extension, research, and teaching programs that address issues directly relevant to these land uses. The value of crops, including nursery and greenhouse, makes up approximately 50 percent of the market value of agricultural products sold with livestock contributing the other 50 percent. The total land area of Nebraska is 49,507,300 acres. Of this, 45,200,000 acres or approximately 90 percent is classified as farms/ranches. About 50 percent of this area is managed as extensive or intensive forage-based production systems, including rangeland, pasture, and forage production that supports the state's beef cattle industry. The remaining 50 percent is used for crop production to produce food, feed, and fuel. The remaining 10 percent includes a combination of urban, roads, and other surface features and non-productive rural acres. Much of the corn (9.6 M acres) and soybean (5 M acres) production occurs in the eastern two-thirds of the state. For corn, approximately 60 percent is irrigated with 40 percent managed as dryland. Around 50 percent of the soybean acres are irrigated. Wheat (1.3 M acres) is mostly dryland with only 12 percent of the acres under irrigation. There is also significant production of alfalfa (750,000 acres), sorghum (175,000 acres), oats (25,000 acres), and potatoes (16,400 acres) scattered across the state. Western Nebraska, including the Panhandle has greater diversity in agricultural production systems with significant acres of sunflower (39,000 acres), sugarbeet (47,200 acres), peas (52,000 acres), dry edible beans (122,000 acres), and Proso millet (88,000 acres) grown only in this region.

To address the diversity in agricultural production across the state, the department has a total of 15.75 extension FTE – 5.75 of which is at Research and Extension Centers (West Central, Northeast, and Panhandle Research and Extension Centers). Extension specialists and extension educators in Agronomy and Horticulture provide leadership and programming to positively impact all land use activities across the state. There are frequent opportunities to partner with others in Nebraska Extension, as well as in-state and out-of-state outreach and extension programs to address issues of mutual concern.

CURRENT STATE OF EXTENSION WITHIN AGRONOMY AND HORTICULTURE

Within the Department of Agronomy and Horticulture several effective individual extension and outreach efforts exist. Many of these individual programs have received state, national and international recognition. Historically, these individual programs have generally been appropriate for meeting the immediate needs of our clientele. When the need for multidisciplinary collaborators arises, often linkages have been developed "as needed" rather than during the planning phase. Traditionally, these are often restricted to individuals with previous connections and success. Although often effective, departmental extension efforts do not always seem cohesive; there are generally no unified "team extension" efforts across disciplines within the department. Typically, disciplinary workgroups in Soils, Range, Pasture and Forages http://agronomy.unl.edu/range-pasture-forages, Cropping Systems, Weeds, Horticulture/Specialty Crops, Landscape Systems, and Turfgrass http://turf.unl.edu/ meet whenever there is the need. From a team perspective, most departmental extension efforts are handled within these disciplinary workgroups and would be considered unidisciplinary. Occasionally, a faculty member within a different discipline will participate in an otherwise unidisciplinary workgroup. However, there continues to be gaps using this approach even though most disciplinary groups meet a couple of times each year.

Extension efforts among Research and Extension Center faculty, in contrast to campus-based faculty, tends to be more interdisciplinary with collaboration representing the diversity of subject matter expertise present at the particular center. Team Extension at the Research and Extension Centers is likely the direct result of programs or policies to encourage cross-disciplinary collaboration. Team Extension at Research and Extension Centers is the result of locating diverse faculty who are tasked with responding to local needs. For instance, extension specialists and extension educators from the West Central Research and Extension Center are evaluating the impacts of diversified and intensified dryland crop production on nutrient, insect, disease, weed, and water dynamics.

Limitations

There is some confusion and understanding about the roles of campus-based extension educators and state specialists. There also appears to be some disconnect in understanding the major differences between county-based extension educators, on-campus extension educators, and state specialists.

Role of Educators

County-based educators. Within the last few years, many county-based extension educators have added responsibilities for disciplinary education across multiple counties. Some county extension educators are handling many of the functions formerly assumed by state extension specialists. Much of this has been a spontaneous transition as a result of streamlining extension programming within the state and the growth in specialized expertise in county-based educators.

Campus-based educators. Extension educators based on campus in Lincoln, who have state-wide responsibilities, often have expectations of development of peer-reviewed publications, competitive external funding, and service on graduate committees. These are less often expected of county-based educators.

These should be viewed as positive changes; however, there are challenges with the transition to greater expertise among educators. It may be useful for Nebraska Extension to clarify and differentiate roles of statewide and county based faculty, specialists and educators, campus vs. Research and Extension Center based faculty; perhaps with new, more specific titles. One option might be moving to four categories of extension professionals: Scientist (former state extension specialist), Specialist (former campus-based extension educator), Educator and Assistant. It may also be useful to develop a common definition of Team Extension. An acknowledgment of a common working definition that team extension exists such as, "teams with diverse expertise and passion who develop synergism that accelerates individual productivity" could support potential development of team-based extension programming.

GROWTH AREAS OVER THE NEXT FIVE YEARS IN TEAM EXTENSION WITHIN THE DEPARTMENT OF AGRONOMY AND HORTICULTURE

- Collaboration across disciplines within and outside the department with focused outreach of applied research results. The main growth area over the next five years points toward increased efforts in team-based extension programming. Currently, there are a few effective multidisciplinary teams. The effective teams do not seem to mind being approached about opportunities for greater interdisciplinary interaction on teams. Because the number of extension faculty in the department is large, the simple mechanism for additional growth may simply be to increase awareness of existing or new opportunities.
- Interdisciplinary teamwork is, and will continue to be, a great area of potential growth. One common misunderstanding is that multidisciplinary and interdisciplinary teamwork can be used to solve all problems. It is important to keep in mind that, in production agriculture, decision makers synthesize information from multiple disciplines. Historically, land-grant institutions deliver that information from a primary discipline to decision makers. The current movement towards multidisciplinary extension programming is to remove the biases associated with a single discipline.

Recently, teams within IANR have been simultaneously hired as "clusters". The faculty hired into many of these positions have appointments in extension with job descriptions reflecting the need to address applied research needs and strengthen extension programming within the state. A common thread among the teams considered successful is their **problem-oriented approach to brainstorming and problem solving**. https://dl.sciencesocieties.org/publications/ael/pdfs/1/1/160042

- Issue Teams
  http://extension.unl.edu/strategic-initiatives/
  Nebraska Extension Issue Teams are a new concept for many with an extension appointment. While these are still in an early stage, the importance of these teams for developing and delivering issue based extension programming is evident. However, there is little formal departmental connection to the Issue Teams with Nebraska Extension, except as individuals. The current Issue Team format encourages coordinated extension efforts around specific topics and is focused on bringing both educators and specialists together. However, as issue teams are focused just on extension, and because most extension specialists have both research and extension appointments, issues teams have tended to coordinate extension work "already being done" rather than expanding to novel issues or novel approaches. Issue teams are evolving in 2017 to increase expectation for programming that originates from the team. Of the 18 Nebraska Extension Issue Teams, Agronomy and Horticulture faculty are involved in the following 11 teams:
  - Insect Ecosystems
  - Resistant and Invasive Pests
  - Climate Variation
  - Consumer Confidence in Food
  - Emerging Technologies for Ag
  - Efficient Water Use
  - Ag Producers Economics
  - STEM Careers
  - Water and Soil Protection
  - Food Access
  - Diversified Ag Production
- Extension Interest Groups:
  http://extension.unl.edu/educational-programs/.
  On a broader scale, Nebraska Extension Issue Teams represent one or more of the following interest groups. Of the seven Nebraska Extension Interest Groups, faculty in the Department of Agronomy and Horticulture participate in the following five Interest Groups.
  - Beef Systems
  - Community Environment
  - Cropping and Water Systems
  - Food, Nutrition, and Health
  - Disaster Recovery Resources

CURRENT STATE OF TEAM EXTENSION ACROSS UNIVERSITY OF NEBRASKA–LINCOLN AND OUTSIDE OF THE UNIVERSITY

Nebraska Extension Issue Teams are still growing with some being much more effective than others. To increase effectiveness, extension faculty in the Department of Agronomy and Horticulture could be more proactive through either departmental efforts or more involvement with the Issue Teams. Team Extension often occurs more easily among faculty at Research and Extension Centers than for those on campus. There are high-functioning extension teams that are recognized outside of Nebraska for their efforts and success. Likewise, there are several regional extension efforts, but most often not directly tied to Issue Teams. Recently developed Nebraska Extension Issue Teams have enhanced collaborations among extension educators and extension specialists, which in the longer term, should facilitate the growth of meaningful extension programming efforts across and perhaps beyond Nebraska. There are several efforts to transcend state boundaries; the most readily identifiable of these are eXtension, regional committees, and occasional grant development. The key points of emphasis for many teams are issues related to recognition and information sharing (also known as "who gets the credit"). Administratively, there are often issues related to expense reimbursement and shared grants that are barriers. Recent decisions that exclude those with extension appointments from serving on NGO boards and holding extension faculty responsible for programs that other organizations deliver demonstrate the difficulties of these partnerships.

EXTENSION BEYOND NEBRASKA

Frequently, team-based extension programs occur beyond state lines. Multistate extension programing is generally the result of faculty from several states, or from within a multistate region, collaborating to address specific topics. Often, multistate extension programing is funded through competitive grants which address both research and extension needs. Several examples of these partnerships exist within the department. The first includes extension specialists from Montana, Nebraska, and Wyoming working to develop control methods for herbicide-resistant weeds in the High Plains ecoregion and extend the research results to stakeholders through coordinated multistate programming efforts. The second example is similar, although it is focused on issues related to the development of sustainable production and management systems that are profitable for livestock producers and protect the environment. In addition to Nebraska, this multistate project includes research and extension faculty from Iowa, Kansas, Michigan, Pennsylvania, South Dakota, and Tennessee. Although there are several participating states, the majority of the extension programming occurs in Nebraska and Kansas. Tear Down the Walls is an annual meeting between researcher and extension workers in Kansas, Colorado, Nebraska, and Wyoming to share research findings and seek joint funding opportunities for the High Plains region. This example of multistate collaboration includes a long history of research and extension collaboration between USDA-ARS faculty located in Akron, Colorado and faculty at the Panhandle Research and Extension Center in the areas of dryland crop water conservation, conservation tillage, and cover crops. Multiple extension programs have been delivered annually, and a long-term tillage research experiment was established with several research and extension publications resulting from this collaboration.

Extension professionals in the department are often invited to present at extension meetings and workshops in neighboring states. These invitations result from the strong recognition and impact of individual research and extension programs within Nebraska. Alternatively, these invited presentations can be the result of a lack of extension expertise in neighboring states. As an example, the extension programs of Colorado, Kansas, and South Dakota, do not currently contain the depth in personnel and expertise as the University of Nebraska. While these neighboring states have historically had large and productive extension programs, budget cuts or changes in priorities have decreased their impacts within the region. Maintaining extension connections to neighboring states can help continue to propel Nebraska Extension, and the Department of Agronomy and Horticulture, as the regional leader.

SIGNATURE EXTENSION PROGRAMS

There are several signature programs that are delivered directly through the Department of Agronomy and Horticulture or through other administrative units and centers, with Agronomy and Horticulture contributing significantly to the development and delivery of the program content. One common factor among all of these active, long-term programs is that they are multidisciplinary, multi-agency partnerships. Another readily identifiable characteristic of success is that these programs are flexible and adjust to meet the needs of the clientele.

Nebraska Grazing Conference

http://grassland.unl.edu/nebraskagrazingconference

Although delivered through the Center for Grassland Studies, the Nebraska Grazing Conference is an excellent example of the influence that long-term programs can have on both land management and use, as well as providing a positive economic impact. The strength of this program is that it involves multiple state and federal state agencies, Nebraska Extension, and stakeholder groups. Attendance over the years has ranged from near 100 to over 250. The program impact can be seen from the evaluation following the 2016 Nebraska Grazinglands Conference. Of the producers who reported economic data, 28 owned 12,359 head of cows, stockers and feedlot cattle, and listed a total improved profitability of $205,395 (average savings of $16.61 per head). Based on these reported savings, the total estimated economic impact for those owning cows and stockers was near $547,466. Greater than 95 percent reported that they were likely or very likely to make management changes based on information provided.

Pesticide Training Program

http://pested.unl.edu/

The Pesticide Safety Education Program joined Agronomy and Horticulture in 2000, following 24 years in the Environmental Programs unit. Educational materials and programs reach about 10,000 Nebraska pesticide applicators each year. This program is supported by a combination of curriculum sales, registration fees, and state/federal grants with an average annual budget of about $275,000. The EPA has funded PSEP curriculum development, in-service training for Region 7 agency personnel, and video projects. The Nebraska Department of Agriculture has funded Nebraska PSEP each year since its inception. Peers in at least 25 states and Canadian provinces have requested to use materials developed through PSEP. Positive behavior changes were indicated by the data including 96 percent used PPE and made pesticide applications according to the pesticide label, and 95 percent took steps to prevent carrying pesticide residues inside their homes. The strength of this program is its multi-agency and multidisciplinary approach to delivery of extension programs.

Crop Production Clinics

http://agronomy.unl.edu/cpc

The annual Crop Production Clinics program is held each year in nine locations across Nebraska and has been in existence for over 35 years. In 2016, there were 1,680 total participants from programs held at 9 locations in the state. Participants include producers, custom pesticide applicators, crop consultants, and seed and agricultural chemical sales persons. Participants represented approximately 6.6 million acres of cropland influenced. Attendees estimated the value of information received at the clinics was about $3.91 per acre and commented that "*The reference materials help producers be more efficient/profitable.*"

Soybean Management Field Days

http://ardc.unl.edu/soydays

Another long-term extension program is the Nebraska Soybean Management Field Days. These field days are held in late summer throughout Nebraska as an annual event. They have been coordinated by Nebraska Extension Educator Keith Glewen in partnership with the Nebraska Soybean Board. There are several extension faculty in the department who plan and participate in this activity.

Turfgrass Conference

http://turf.unl.edu and http://NebraskaTurfgrass.com

The 2017 Nebraska Turfgrass Conference is a three-day conference held in LaVista, NE. It is designed for turfgrass professionals in golf, sports, and lawn care. There were 550 turfgrass managers in attendance, which is a near record level. This conference has existed for several decades and includes pesticide recertification with the Nebraska Department of Agriculture (NDA), a trade show, and more than 40 seminars. Annual post-conference surveys have been used to completely redesign the program. As a result, recertification has been directly integrated into the program. This has increased attendance and received great feedback in our post conference surveys. The Nebraska Turfgrass Association officially hosts the conference and all profits are donated back to turfgrass research at the university. Revenues have increased and are now greater than $70,000.

Turf Field Day

http://turf.unl.edu and http://NebraskaTurfgrass.com

The 2016 Summer Turf Research Field Day was also revised from prior years. Historically a summer field day existed for many years at the John Seaton Anderson Turf Center near Mead, Nebraska. In 2016, the event was moved to the newly created East Campus Turfgrass Plots. This new location increased attendance (199 attendees), a trade show, and significant local media coverage from three TV news organizations. The purpose of this event is to allow turfgrass professionals from around the region to see the latest turfgrass research. This event is also in partnership with the Nebraska Turfgrass Association, and all profits go to support further turfgrass research and station expansion.

Ranch Practicum

http://nebraskaranchpracticum.unl.edu/

The Nebraska Ranch Practicum is a long-term, interdisciplinary programming effort delivered primarily through the West Central and Panhandle Research and Extension Centers. This program is somewhat unique from several of the others in that it is focused on all aspects of ranch and natural resources management and primarily addresses issues holistically. This program requires a commitment of multiple days over several weeks for the participants. Over the 18 continuous years of program delivery, there have been over 550 participants attending this program.

Master Gardener

http://mastergardener.unl.edu/

The Extension Master Gardener Program began in 1973 in Washington State to train volunteers to teach others science-based horticulture. This national program was adopted in Nebraska in 1976 and to date has trained thousands of EMG Volunteers Statewide. Today Nebraska has 800 active EMG Volunteers in 42 counties. In 2016 these EMG Volunteers reported 30,000 hours (public value of $667,500.00) volunteering in public/community projects across the state, connecting with over one million adults and youth, and attending 13,200 educational hours of class time taught by extension faculty and staff. This core of volunteers is a good resource for, and advocates for Nebraska Extension and the University.

Nebraska On-Farm Research Network

http://cropwatch.unl.edu/on-farm-research

The Nebraska On-Farm Research Network began in 1989 as the Nebraska Soybean and Feed Grains Profitability Project, and has steadily grown from a southeast Nebraska focus to a statewide focus today. The network is a joint effort of Nebraska Extension and Nebraska crop growers, with financial support from the Nebraska Corn Board, Nebraska Soybean Board and other resources. Department of Agronomy and Horticulture faculty

contribute significantly to the program with guidance on experimental design, data collection and data analysis. A significant effort within the NOFRN is Project SENSE (Sensors for Efficient Nitrogen Use and Stewardship of the Environment - http://cropwatch.unl.edu/projectsense), which is a collaborative effort of Nebraska Extension, area Natural Resources Districts, the Nebraska Corn Board, and USDA to encourage adoption of in-season nitrogen management practices which both increase profit and reduce nitrogen loss to the environment. From 36 on-farm research sites in 2015 and 2016, the project found on average 30-40 lb N/acre less N, and $7-8/acre increased profit, with sensor-based in-season N application compared to growers standard practices.

Backyard Farmer

http://byf.unl.edu/

Backyard Farmer is in its 65th season. Since 1952 the multidisciplinary Nebraska Extension faculty expert panel has been responding to home gardener questions. Today the show is aired live on Nebraska Educational Television weekly from April through mid-September. Nebraska Extension faculty answer homeowner questions received through email, phone calls, Facebook, Twitter, and traditional mail. An average of 80 emails per week are received, with Nebraska Extension Master Gardener volunteers responding to an average of 60 phone calls during the show each week.

While television viewership has increased, the greatest growth was seen with the addition of traditional electronic and social media platforms. BYF has audiences on Facebook, YouTube, Twitter, and Pinterest social media platforms, along with a dedicated website (http://byf.unl.edu/). These incremental additions of new media have broadened the reach from a locally produced television show to an extension program responding to questions from across the United States, as well as internationally.

The Backyard Farmer YouTube Channel

The Backyard Farmer YouTube channel https://www.youtube.com/user/bucslim has been the driving element of these platforms since it was created in 2006. Each year, the BYF YouTube channel has an increase of growth. In 2016 the viewership increased 25 percent; to date the BYF YouTube channel has over 4,700,000 views. The other social media platforms have also helped to increase the breadth of the show. Facebook had a reach of 6.5 million in 2016. Many of the YouTube videos are cross-posted through all platforms. With all media outlets BYF has an average reach of 100,000 a week during the season. Historically the demographics of the show have been female, aged 55 and over. The primary demographic of the YouTube channel is male, aged 35 years old.

When identifying growth areas for Team Extension over the next 5 years, the process and evolution of Backyard Farmer and its move into online and social media platforms should serve as the model for increased growth.

GROWTH AREAS OVER THE NEXT FIVE YEARS IN TEAM EXTENSION ACROSS THE UNIVERSITY OF NEBRASKA–LINCOLN AND OUTSIDE OF THE UNIVERSITY

Growth areas should be about issues that require multidisciplinary and interdisciplinary expertise that enable more effective responses by Nebraska Extension. The logical catalyst for initiating growth areas may be through internally funded University of Nebraska and IANR Initiatives. Ultimately, multidisciplinary teams that cross departmental boundaries, as well as across agencies/institutions, and state boundaries are the areas for growth.

The Department of Agronomy and Horticulture has talented extension faculty. However, the current dependence on faculty with appointments in research and teaching is not fully meeting the needs for gaps in extension programming. Three areas for departmental growth are

- On-farm Research Program
- Specialty Crops
- Integrated Crop-Livestock Systems

These are important growth areas from many standpoints. All of these growth areas transcend departmental disciplines, multiple on-campus departments, as well as the Research and Extension Centers, and regional agricultural issues.

LIMITATIONS TO EXTENSION BEYOND NEBRASKA

To become a regional and national resource in extension, it is important to recognize the combination of factors that could serve to limit any new growth. A primary concern for new growth areas is the need to explore how to deliver information and resources from our areas of expertise and meet clientele interests outside state borders without alienating neighboring land-grant institutions and our own stakeholders.

Because of the availability of information, delivery of science-based information is still needed where gaps can be identified. This is important because a divide exists between the science and public perception for many agricultural-based issues; two specific examples are GMOs and soil health. As research-trained scientists, we are knowledgeable of, and conduct, basic and applied research that integrates chemistry, biology and physics as they apply to the plant and soil sciences, and ultimately to crop production, soil management, environmental stewardship, landscape management, and other ecosystem services provided through the agricultural and landscape systems we manage. However, continued discussion is needed since it has importance not only for growth areas, but also how Nebraska Extension can function within the diverse educational environment of any growth areas. While we may not know all of the answers, we have the ability to put many of these ideas into perspective. However, we are limited by short time frames that do not allow prediction for what many of these practices may accomplish over decades.

Increasingly our efforts are directed towards team-based science and digital information delivery. As long as teams are evaluated as individuals, however, the teams will act as individuals. A critical factor for long-term successes is team longevity, as seen in many of the Signature Extension Programs. To enhance longevity, high-functioning teams have needs for capacity and support beyond individual disciplines, such as a Project Manager or Media Specialist. A recent example for this type of support is the Department of Agronomy and Horticulture Events Coordinator.

STRENGTHENING AGRONOMY AND HORTICULTURE TEAM EXTENSION OVER THE NEXT FIVE YEARS

We expect Agronomy and Horticulture Team Extension to evolve significantly over the next five years, with an increased emphasis and visibility of integrated Extension efforts within the department, and maintained or increased integration with effective Issue Teams with other IANR units. Our efforts should become more driven by learning outcomes, with Extension resources providing a range of educational opportunities from introductory levels to hands-on, in-depth workshops and short courses. We suggest five areas in which we can enhance or expand our efforts to increase Agronomy and Horticulture Team Extension visibility and impact over the next five years:

Increasing digital and other media resources

The use of social and new media can help support the extension mission of the Department of Agronomy and Horticulture within Nebraska and beyond. Two possibilities include developing and creating video blogs to bring field research results to those who cannot attend field and plot tours and using interactive virtual reality (VR) technology and drones to provide immersive experiences to remote stakeholders, increasing the footprint of Department of Agronomy and Horticulture Extension through video or VR formats.

One example of this type of extended reach is Backyard Farmer. Delivery of programming is through both traditional and social media electronic platforms, which increases the breadth and depth of the program. Short, three- to five-minute topical segments are shared through multiple electronic platforms. This gives current relevancy and timely science-based landscape system information to home gardeners. These segments are easy to create and upload to a distribution center such as YouTube, by using concise descriptors for better online search capabilities. BYF has become an outlet for good science-based landscape system information, not just within Nebraska, but regionally, nationally, and internationally.

A highly visible outlet for outreach on a larger scale is the Raising Nebraska: Outdoors in Grand Island, housed on the Nebraska State Fair Grounds. The original landscape was designed by Department of Agronomy and

Horticulture Extension faculty. With a concentrated effort, active research projects could be scaled down and installed into a living exhibit where all Nebraskans could view current research from the Department of Agronomy and Horticulture (300,000 people attend the Nebraska State Fair). Possible GPS location links could be installed to transport visitors to webcams in fields where the full research project is taking place. Short videos could be created with links to GPS locations and used to describe the application of the research and provide a brief explanation of and importance of the results.

Increased use and awareness of Nebraska's unique agroecoregions

The wide variation in rainfall, soils, and resulting cropping systems across Nebraska is a tremendous asset from which to conduct research, with resulting resources for spatially appropriate Extension programming. Such information is useful for Nebraska-based clientele, but also may be relevant to other locations around the globe with similar agroecoregions. The Nebraska On-Farm Research Network (NOFRN) (http://cropwatch.unl.edu/on-farm-research) is rapidly expanding, but it is limited in scope to the eastern one-third to one-half of Nebraska. Continued growth can only occur with increased emphasis and support. Although this program is not administratively managed through the Department of Agronomy and Horticulture, departmental faculty serve as advisors to the program and program managers. To stay relevant, increased efforts to enhance the NOFRN are needed. However, this will require an increased investment in human capital and other resources. The NOFRN could also be increased in intensity to collect more data and address many issues with regional and national importance, since as designed most NOFRN sites are not meant to be full-blown research studies.

There is a continued need for unbiased variety/hybrid performance data for commodity crops beyond winter wheat, specifically corn, soybean, and grain sorghum. Since Nebraska has a wide range of agroecoregions, such data would be valuable for producers both in Nebraska and regionally. The value of enhancing these programs is to provide unique opportunities within and across the Department of Agronomy and Horticulture to publish research data from field-scale, on-farm research studies across multiple locations and environments.

Currently, there are two support needs for enhancing the NOFRN. These include additional technical support and upgraded equipment until grant funding could be developed to enhance regional technical support and equipment maintenance.

Increased focus on specialty crop and niche market production, including urban audiences

A strategic opportunity for Agronomy and Horticulture Team Extension is the area of specialty crop production. Nebraskans are increasingly interested in diversifying their farming enterprises using specialty crops. However, there is a lack of applied research-based knowledge about the production of these crops in the unique agroecoregions of Nebraska. Enhanced programming in the Specialty Crops area would help fill the gap in developing applied research that is needed to capitalize on the growing demand for local fruits, vegetables, and landscape plants, as well as the growing need for beverage ingredients including hops, grapes, and malting barley.

Increased interest in soil health and diversified production systems

In both crop and livestock systems, we address the integrated crop-livestock production systems with content that is situation-specific at multiple entry points using different approaches. Areas of on-going challenge to developing these systems include water use efficiency, reduced water erosion, increased livestock production potential, soil organic matter increase for C sequestration and improved soil function, weed resistance, and biodiversification. One example to model could be North Dakota State University, who has a team of "Soil Health Specialists."

Increased need for assisting producers with data

Modern crop and livestock production systems increasingly generate vast amounts of data, much of it at high spatial and temporal density. Increasingly producers are asking for advice on how to effectively collect, archive, analyze and most importantly utilize data: yield maps over multiple years, soil moisture sensors, vehicle track information, aerial imagery, etc. Extension faculty from Agronomy and Horticulture will need to work in

interdisciplinary teams to provide sound advice on data management, how to turn vast quantities of data into useful information, and how to sort out varying industry approaches to data management.

Nebraska Extension faculty, especially those in the Department of Agronomy and Horticulture, are engaging stakeholders outside of Nebraska. Continued encouragement of multistate collaborations and a strategic focus on maintaining investment in extension, despite cuts in state funding, will maintain and build the influence of extension programs in the Department of Agronomy and

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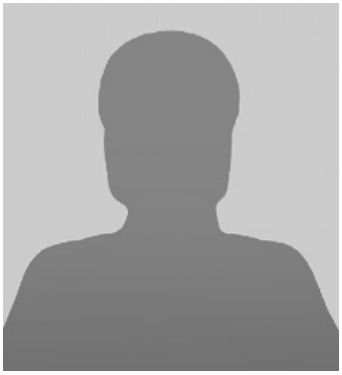

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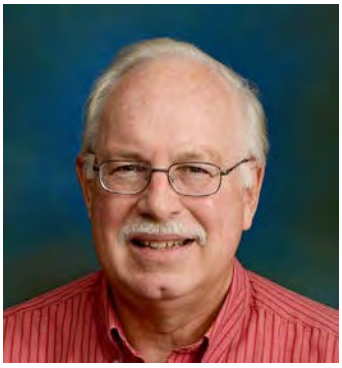

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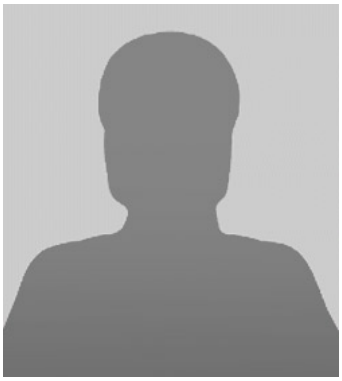

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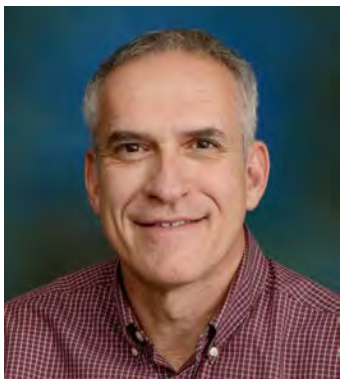

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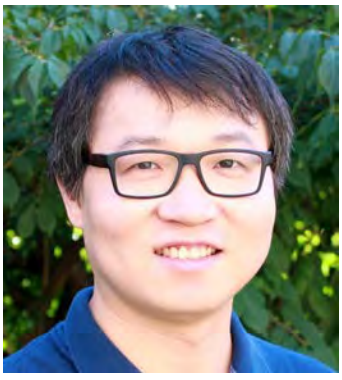

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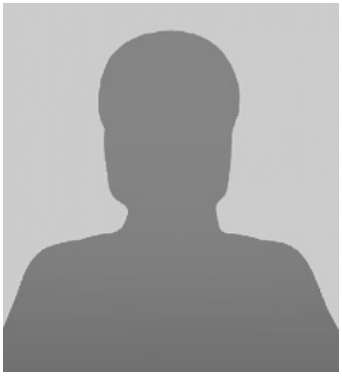

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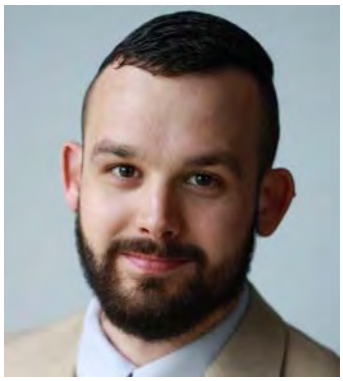

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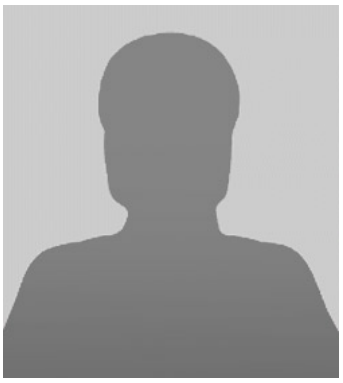

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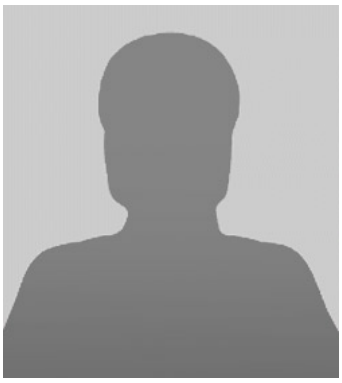
Richard Little
AG RESEARCH
TECHNICIAN II

STAFF

Michael Livingston
LABORATORY
OPERATIONS MANAGER



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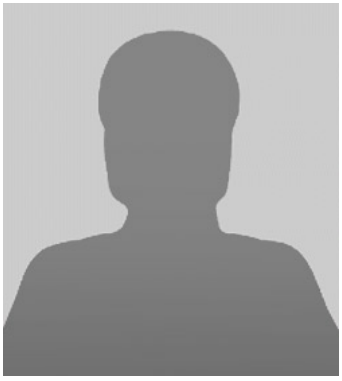

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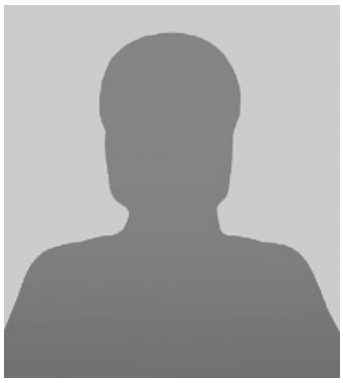

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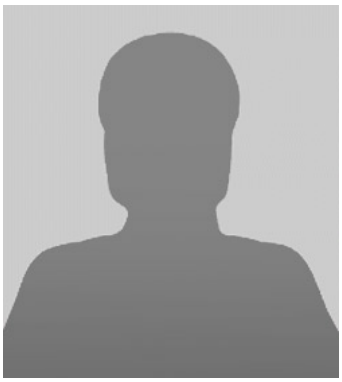

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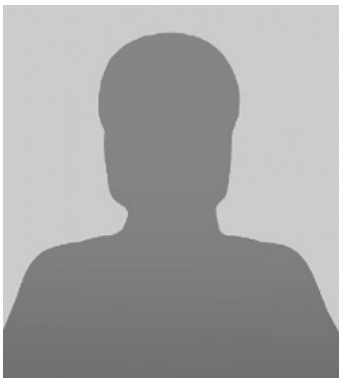

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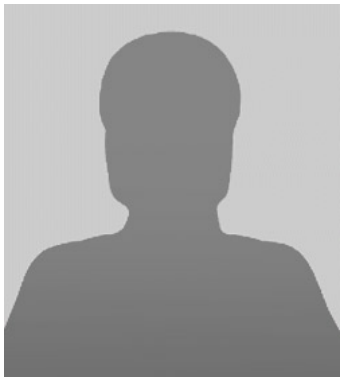

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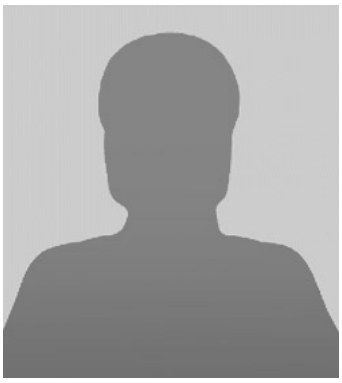

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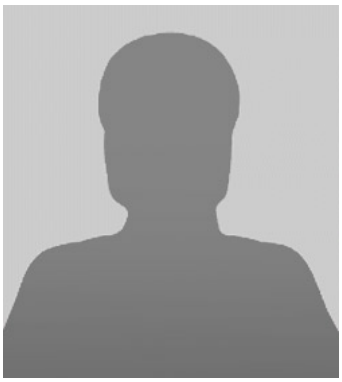

Marc Walter
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Christine Weitzel
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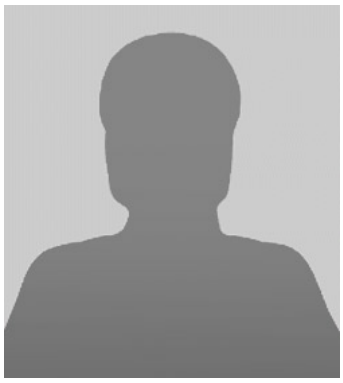
STAFF

Lan Xu
RESEARCH MANAGER
LAB I



Orlando Zapata
RESEARCH
TECHNOLOGIST II

Appendices to the Self-Study

APPENDIX A

Table1. Number of faculty and average salary by rank for the Department of Agronomy and Horticulture and UNL for the years 2012-2013 and 2016-2017. Source: Office of Institutional Effectiveness and Analysis. July 2017

2012-2013

	Department of Agronomy and Horticulture				Overall UNL - Includes Library				Overall UNL - Excludes Library			
	9 Month		12 Month		9 Month		12 Month		9 Month		12 Month	
	No.	Avg Salary	No.	Avg Salary	No.	Avg Salary	No.	Avg Salary	No.	Avg Salary	No.	Avg Salary
Professor	3	$167,609	30	$124,317	316	$120,151	157	$126,152	316	$120,151	143	$130,602
Assoc Professor	1	$74,684	5	$94,929	249	$79,361	62	$85,904	248	$79,512	48	$92,853
Asst Professor	7	$79,007	7	$81,464	195	$75,778	43	$79,390	195	$75,778	37	$83,466

2016-2017

	Department of Agronomy and Horticulture				Overall UNL - Includes Library				Overall UNL - Excludes Library			
	9 Month		12 Month		9 Month		12 Month		9 Month		12 Month	
	No.	Avg Salary	No.	Avg Salary	No.	Avg Salary	No.	Avg Salary	No.	Avg Salary	No.	Avg Salary
Professor	2	$175,322	27	$135,919	328	$129,991	132	$138,442	328	$129,991	119	$144,175
Assoc Professor	6	$99,615	8	$102,808	251	$88,470	72	$95,392	250	$88,643	58	$101,372
Asst Professor	3	$89,558	6	$88,896	243	$87,718	64	$85,870	242	$87,870	60	$87,797

The SAP HR files exclude Deans and other administrative salaries and include chairpersons. Faculty with 1.00 or greater FTE who are active on October 1 are included. Named Professorship stipends are included.

Table 2. Comparison of average faculty salaries by rank with ten comparator institutions for the academic year 2016-2017. Source: Office of Institutional Effectiveness and Analysis. July 2017

	Professor		Associate		Assistant	
	Total Number	Average Salary	Total Number	Average Salary	Total Number	Average Salary
Peer Average	192	$113,266	75	$86,247	71	$77,932
UNL's Department of Agronomy and H	29	$115,628	14	$90,758	9	$78,341
Percent Difference		1.6%		2.3%		0.5%

The Faculty Salary Study file includes those having a 1.00 FTE, ranked as assistant professor and above. Deans and other academic administrative salaries are excluded, departmental chairpersons are included. Regents Professorship stipends are included. All personnel and salaries are based on a October 1 personnel extract.

Twelve-month salaries are converted to nine-month salaries by using a factor of 9/11. The salaries were derived using a faculty salary comparison model that conforms with Central Administration computation requirements. These requirements include using a 9/11th's factor to convert 12-month salaries to their 9-month equivalents. This factor was used for both the Regents Peer Group and UNL.

Note: The ten comparator institutions are: University of Minnesota, Purdue University, University of Missouri, Ohio State University, University of Illinois, Iowa State University, University of Iowa, Colorado State University, University of Colorado and University of Kansas.

For the 2016-2017 comparison, Iowa State was not included.

Source: AAU Data Exchange, 2016-2017 and UNL October, 2016-17 Personnel Data.

Table 3. Majors by full and part time, gender, and age for fall semester 2016. Source: Office of Institutional Effectiveness and Analysis. July 2017

Turfgrass and Landscape Mngt

Undergraduate

	Full-Time											Part-Time											
	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total FT	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total PT	Total Full and Part Time
Male	0	3	16	9	0	0	0	0	0	0	28	0	0	0	0	1	0	0	0	0	0	1	29
Female	0	1	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Total Turfgrass and Landscape Mngt	0	4	16	10	0	0	0	0	0	0	30	0	0	0	0	1	0	0	0	0	0	1	31
TOTAL Undergraduate	0	4	16	10	0	0	0	0	0	0	30	0	0	0	0	1	0	0	0	0	0	1	31

Summary for Turfgrass and Landscape						
97%	are full time	94%	are men	97%	are traditional age college students*
3%	are part time	6%	are women	3%	are non-traditional age college students

Pre-Horticulture (Omaha)

Undergraduate

	Full-Time											Part-Time											
	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total FT	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total PT	Total Full and Part Time
Male	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Female	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total Pre-Horticulture (Omaha)	0	1	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
TOTAL Undergraduate	0	1	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2

Summary for Pre-Horticulture (Omaha)						
100%	are full time	50%	are men	50%	are traditional age college students*
0%	are part time	50%	are women	50%	are non-traditional age college students

Plant Biology

Undergraduate

	Full-Time											Part-Time											
	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total FT	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total PT	Total Full and Part Time
Male	0	5	4	2	1	0	0	0	0	0	12	0	1	0	1	0	0	0	0	0	0	2	14
Female	0	0	3	1	1	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5
Total Plant Biology	0	5	7	3	2	0	0	0	0	0	17	0	1	0	1	0	0	0	0	0	0	2	19
TOTAL Undergraduate	0	5	7	3	2	0	0	0	0	0	17	0	1	0	1	0	0	0	0	0	0	2	19

Summary for Plant Biology						
89%	are full time	74%	are men	89%	are traditional age college students*
11%	are part time	26%	are women	11%	are non-traditional age college students

Horticulture

Graduate -MS

	Full-Time											Part-Time											Total Full and Part Time
	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total FT	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total PT	
Male	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	1	0	1	1	0	0	3	5
Female	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Horticulture	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	1	0	1	1	0	0	3	5
TOTAL Graduate	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	1	0	1	1	0	0	3	5

Undergraduate

	Full-Time											Part-Time											Total Full and Part Time
	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total FT	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total PT	
Male	0	1	13	4	2	1	1	1	0	0	23	0	0	0	0	0	0	1	1	0	0	2	25
Female	0	7	11	5	0	1	0	0	0	0	24	0	0	1	3	0	2	0	0	0	0	6	30
Total Horticulture	0	8	24	9	2	2	1	1	0	0	47	0	0	1	3	0	2	1	1	0	0	8	55
TOTAL Undergraduate	0	8	24	9	2	2	1	1	0	0	47	0	0	1	3	0	2	1	1	0	0	8	55

Summary for Horticulture						
82%	are full time	50%	are men	78%	are traditional age college students*
18%	are part time	50%	are women	22%	are non-traditional age college students

Agronomy and Horticulture

Graduate -PHD

	Full-Time											Part-Time											Total Full and Part Time
	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total FT	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total PT	
Male	0	0	0	0	21	11	4	4	0	0	40	0	0	0	0	7	6	2	2	0	0	17	57
Female	0	0	1	2	12	3	0	1	0	0	19	0	0	0	2	2	1	1	0	0	0	6	25
Total Agronomy and Horticulture	0	0	1	2	33	14	4	5	0	0	59	0	0	0	2	9	7	3	2	0	0	23	82
TOTAL Graduate	0	0	1	2	33	14	4	5	0	0	59	0	0	0	2	9	7	3	2	0	0	23	82

Summary for Agronomy and Horticulture						
72%	are full time	70%	are men	6%	are traditional age college students*
28%	are part time	30%	are women	94%	are non-traditional age college students

APPENDIX A

Agronomy

Graduate -MS

	Full-Time											Part-Time											Total Full and Part Time
	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total FT	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total PT	
Male	0	0	0	9	8	2	1	1	0	0	21	0	0	0	5	15	4	3	5	0	0	32	53
Female	0	0	0	6	4	0	0	1	0	0	11	0	0	0	5	5	4	0	1	0	0	15	26
Total Agronomy	0	0	0	15	12	2	1	2	0	0	32	0	0	0	10	20	8	3	6	0	0	47	79
TOTAL Graduate	0	0	0	15	12	2	1	2	0	0	32	0	0	0	10	20	8	3	6	0	0	47	79

Undergraduate

	Full-Time											Part-Time											Total Full and Part Time
	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total FT	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total PT	
Male	0	46	70	36	3	1	0	1	0	0	157	0	0	1	7	1	0	0	1	0	0	10	167
Female	0	9	12	3	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	0	0	24
Total Agronomy	0	55	82	39	3	1	0	1	0	0	181	0	0	1	7	1	0	0	1	0	0	10	191
TOTAL Undergraduate	0	55	82	39	3	1	0	1	0	0	181	0	0	1	7	1	0	0	1	0	0	10	191

Summary for Agronomy				
79%	are full time	81%	are men	77% are traditional age college students*
21%	are part time	19%	are women	23% are non-traditional age college students

	Full-Time											Part-Time											
GRAND TOTAL	0	73	130	80	53	19	6	9	0	0	370	0	1	2	23	32	17	8	11	0	0	94	464

Undergraduate

Undergraduate

	Full-Time											Part-Time											
	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total FT	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total PT	Total Full and Part Time
Male	0	46	70	36	3	1	0	1	0	0	221	0	0	1	7	1	0	0	1	0	0	15	236
Female	0	9	12	3	0	0	0	0	0	0	56	0	0	0	0	0	0	0	0	0	0	6	62
TOTAL	0	73	129	61	8	3	1	2	0	0	277	0	1	2	11	2	2	1	2	0	0	21	298
Total Undergraduate	0	73	129	61	8	3	1	2	0	0	277	0	1	2	11	2	2	1	2	0	0	21	298

Summary for Undergraduate				
93%	are full time	79%	are men	93% are traditional age college students*
7%	are part time	21%	are women	7% are non-traditional age college students

Graduate

Graduate - MS

	Full-Time											Part-Time											
	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total FT	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total PT	Total Full and Part Time
Male	0	0	0	9	8	2	1	1	0	0	23	0	0	0	5	15	4	3	5	0	0	35	58
Female	0	0	0	6	4	0	0	1	0	0	11	0	0	0	5	5	4	0	1	0	0	15	26
TOTAL	0	0	0	17	12	2	1	2	0	0	34	0	0	0	10	21	8	4	7	0	0	50	84

Graduate - PHD

	Full-Time											Part-Time											
	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total FT	<18	18 19	20 21	22 24	25 29	30 34	35 39	40 64	65+	Unkn	Total PT	Total Full and Part Time
Male	0	0	0	0	21	11	4	4	0	0	40	0	0	0	0	7	6	2	2	0	0	17	57
Female	0	0	1	2	12	3	0	1	0	0	19	0	0	0	2	2	1	1	0	0	0	6	25
TOTAL	0	0	1	2	33	14	4	5	0	0	59	0	0	0	2	9	7	3	2	0	0	23	82
Total Graduate	0	0	1	19	45	16	5	7	0	0	93	0	0	0	12	30	15	7	9	0	0	73	166

Summary for Graduate				
56%	are full time	69%	are men	19% are traditional age college students*
44%	are part time	31%	are women	81% are non-traditional age college students

GRAND TOTAL																							
	0	73	130	80	53	19	6	9	0	0	370	0	1	2	23	32	17	8	11	0	0	94	464

Table 4. Number of class registrations, student credit hours, and student contact hours by level for fall 2012 through fall 2016. Source: Office of Institutional Effectiveness and Analysis. July 2017

Horticulture 2012–2015

Horticulture

	Total			Lower Level			Upper Level			Grad Prof Level		
	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs
Fall 2012	423	1140	1077	251	702	607	156	382	413	16	56	57
Fall 2013	411	1109	1031	243	680	599	155	392	396	13	37	36
Fall 2014	452	1214	1161	272	762	651	165	414	473	15	38	37

Horticulture - Omaha

	Total			Lower Level			Upper Level			Grad Prof Level		
	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs
Fall 2012	294	673	810	291	667	804	3	6	6	0	0	0
Fall 2013	343	825	977	342	822	974	1	3	3	0	0	0
Fall 2014	252	600	767	251	597	764	1	3	3	0	0	0
Fall 2015	173	383	485	173	383	485	0	0	0	0	0	0

Summary

	Total			Lower Level			Upper Level			Grad Prof Level		
	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs
Fall 2012	717	1813	1887	542	1369	1411	159	388	419	16	56	57
Fall 2013	754	1934	2008	585	1502	1573	156	395	399	13	37	36
Fall 2014	704	1814	1928	523	1359	1415	166	417	476	15	38	37
Fall 2015	173	383	485	173	383	485	0	0	0	0	0	0

Agronomy 2012–2015

Agronomy (AGRO)

	Total			Lower Level			Upper Level			Grad Prof Level		
	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs
Fall 2012	1013	2687	2274	566	1448	1203	181	604	479	266	635	592
Fall 2013	1126	3002	2523	588	1532	1270	221	744	605	317	726	648
Fall 2014	1212	3373	2884	689	1803	1527	250	850	711	273	720	646

Range Science

	Total			Lower Level			Upper Level			Grad Prof Level		
	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs
Fall 2012	11	39	29	6	24	18	5	15	11	0	0	0
Fall 2013	19	65	48	13	47	36	6	18	12	0	0	0
Fall 2014	12	43	34	7	28	21	5	15	13	0	0	0

Soil Science

	Total			Lower Level			Upper Level			Grad Prof Level		
	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs
Fall 2012	69	249	95	62	228	78	7	21	17	0	0	0
Fall 2013	81	297	101	74	276	84	7	21	17	0	0	0
Fall 2014	79	271	121	62	220	76	17	51	45	0	0	0

Turfgrass & Landscape Mngt

	Total			Lower Level			Upper Level			Grad Prof Level		
	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs
Fall 2012	119	272	263	65	163	180	54	109	83	0	0	0
Fall 2013	82	176	121	31	63	64	51	113	57	0	0	0
Fall 2014	91	197	162	53	123	130	38	74	32	0	0	0

Summary

	Total			Lower Level			Upper Level			Grad Prof Level		
	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs
Fall 2012	1212	3247	2661	699	1863	1479	247	749	590	266	635	592
Fall 2013	1308	3540	2793	706	1918	1454	285	896	691	317	726	648
Fall 2014	1394	3884	3201	811	2174	1754	310	990	801	273	720	646

Agronomy 2015-2016

Agronomy (AGRO)

	Total			Lower Level			Upper Level			Grad Prof Level		
	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs
Fall 2015	1261	3522	2975	738	1931	1634	272	908	715	251	683	626
Fall 2016	1302	3641	3097	710	1834	1529	271	943	748	321	864	820
Percent Change from Fall 2015 to Fall 2016	3.3%	3.4%	4.1%	-3.8%	-5.0%	-6.4%	-0.4%	3.9%	4.6%	27.9%	26.5%	31.0%

Range Science

	Total			Lower Level			Upper Level			Grad Prof Level		
	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs
Fall 2015	9	29	26	2	8	6	7	21	20	0	0	0
Fall 2016	9	27	23	1	3	2	8	24	21	0	0	0
Percent Change from Fall 2015 to Fall 2016	0.0%	-6.9%	-11.5%	-50.0%	-62.5%	-66.7%	14.3%	14.3%	5.0%	#Num!	#Num!	#Num!

Summary

	Total			Lower Level			Upper Level			Grad Prof Level		
	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs
Fall 2015	1866	5130	4395	1133	3033	2523	465	1365	1200	268	732	672
Fall 2016	1860	5164	4389	1079	2896	2342	439	1347	1170	342	921	877
Percent Change from Fall 2015 to Fall 2016	-0.3%	0.7%	-0.1%	-4.8%	-4.5%	-7.2%	-5.6%	-1.3%	-2.5%	27.6%	25.8%	30.5%

Turfgrass & Landscape Mngt

	Total			Lower Level			Upper Level			Grad Prof Level		
	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs
Fall 2015	96	200	200	56	120	134	40	80	66	0	0	0
Fall 2016	77	174	165	37	85	88	40	89	77	0	0	0
Percent Change from Fall 2015 to Fall 2016	-19.8%	-13.0%	-17.5%	-33.9%	-29.2%	-34.3%	0.0%	11.3%	16.7%	#Num!	#Num!	#Num!

Soil Science

	Total			Lower Level			Upper Level			Grad Prof Level		
	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs
Fall 2015	59	202	81	54	187	70	5	15	11	0	0	0
Fall 2016	70	245	89	67	236	83	3	9	6	0	0	0
Percent Change from Fall 2015 to Fall 2016	18.6%	21.3%	9.9%	24.1%	26.2%	18.6%	-40.0%	-40.0%	-45.5%	#Num!	#Num!	#Num!

Horticulture

	Total			Lower Level			Upper Level			Grad Prof Level		
	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs	No. of Reg.	Credit Hours	Contact Hrs
Fall 2015	441	1177	1113	283	787	679	141	341	388	17	49	46
Fall 2016	402	1077	1015	264	738	640	117	282	318	21	57	57
Percent Change from Fall 2015 to Fall 2016	-8.8%	-8.5%	-8.8%	-6.7%	-6.2%	-5.7%	-17.0%	-17.3%	-18.0%	23.5%	16.3%	23.9%

Table 5. Number of course sections, registrations, average class size, and student credit hours for fall semesters 2012 and 2016. Source: Office of Institutional Effectiveness and Analysis. July 2017

Fall 2012					Fall 2016				
Course Number	*No. of Sections*	*Registrations*	*Avg. Class Size*	*Student Credit Hours*	*Course Number*	*No. of Sections*	*Registrations*	*Avg. Class Size*	*Student Credit Hours*
					HORT388	1	3	3	9
					HORT388	1	5	5	15
					AGRO888	1	1	1	3
					HORT488	1	2	2	6
					HORT488	1	7	7	21
HORT275	1	2	2	6	HORT275	2	3	1.5	9
AGRO275	1	1	1	3	AGRO275	2	4	2	12
AGRO431	1	15	15	45	AGRO431	1	65	65	195
					AGRO107	2	49	24.5	147
HORT131	2	17	8.5	51	HORT131	4	28	7	84
AGRO131	3	142	47.3	426	AGRO131	5	225	45	675
AGRO132	7	146	20.9	146	AGRO132	7	147	21	147
HORT153	1	17	17	68	HORT153	1	12	12	47.99
SOIL153	1	50	50	200	SOIL153	1	51	51	203.99
AGRO153	1	87	87	348	AGRO153	1	97	97	387.99
AGRO201	1	37	37	37	AGRO201	1	31	31	31
HORT227	1	10	10	30	HORT227	1	4	4	12
AGRO227	1	3	3	9	AGRO227	1	2	2	6
TLMT227	1	26	26	78	TLMT227	1	16	16	48
TLMT228	1	23	23	69	TLMT228	1	8	8	24
HORT228	1	7	7	21	HORT228	1	2	2	6
AGRO228	1	2	2	6	AGRO228	1	1	1	3
RNGE240	1	6	6	24	RNGE240	1	1	1	3
AGRO240	1	61	61	244	AGRO240	1	59	59	177
AGRO242	1	1	1	1	AGRO242	1	1	1	1
AGRO269	1	68	68	204	AGRO269	1	73	73	219
SOIL269	1	8	8	24	SOIL269	1	8	8	24
					AGRO270	1	3	3	9
AGRO279	1	11	11	11	AGRO279	1	5	5	5
SOIL279	1	4	4	4	SOIL279	1	8	8	8
AGRO295	1	7	7	13	AGRO295	1	13	13	14

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Fall 2012					Fall 2016				
Course Number	No. of Sections	Registrations	Avg. Class Size	Student Credit Hours	Course Number	No. of Sections	Registrations	Avg. Class Size	Student Credit Hours
AGRO315	2	97	48.5	388	AGRO315	3	143	47.7	572
AGRO326	1	1	1	3					
HORT326	1	1	1	3					
TLMT326	1	3	3	9					
					AGRO388	1	1	1	3
AGRO395	1	1	1	1					
AGRO405	1	24	24	72	AGRO405	1	24	24	72
					HORT808	1	3	3	9
AGRO408	2	5	2.5	15	AGRO408	2	6	3	18
AGRO811	1	16	16	16	AGRO811	1	18	18	36
AGRO411	1	10	10	10	AGRO411	1	6	6	12
AGRO427	1	2	2	6					
TLMT427	1	9	9	27					
					HORT829A	1	1	1	3
					AGRO429A	1	1	1	3
RNGE442	1	3	3	9	RNGE442	1	3	3	9
					AGRO842	1	1	1	3
AGRO442	1	10	10	30	AGRO442	1	4	4	12
RNGE444	1	1	1	3	RNGE444	1	2	2	6
AGRO844	1	1	1	3	AGRO844	1	2	2	6
AGRO444	1	2	2	6	AGRO444	1	3	3	9
RNGE445	1	1	1	3	RNGE445	1	3	3	9
AGRO445	1	2	2	6	AGRO445	1	3	3	9
AGRO845	1	5	5	15	AGRO845	1	2	2	6
SOIL455	1	2	2	6					
AGRO855	1	9	9	27					
AGRO455	1	1	1	3					
AGRO461	1	2	2	6					
AGRO861	1	3	3	9					
					AGRO879	1	10	10	30
					AGRO479	1	3	3	9

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Fall 2012					Fall 2016				
Course Number	No. of Sections	Registrations	Avg. Class Size	Student Credit Hours	Course Number	No. of Sections	Registrations	Avg. Class Size	Student Credit Hours
HORT488	2	15	7.5	45					
AGRO488	1	3	3	9	AGRO488	2	11	5.5	33
AGRO495	1	1	1	1					
AGRO896	3	16	5.33	18	AGRO896	4	21	5.25	47.99
AGRO496	3	9	3	14.99	AGRO496	3	6	2	11
AGRO896	2	14	7	24	AGRO896	2	19	9.5	56
AGRO806	1	9	9	36					
HORT406	1	1	1	4					
HORT806	1	2	2	8					
AGRO807	1	15	15	45	AGRO807	1	23	23	69
AGRO815A	2	22	11	22	AGRO815A	2	15	7.5	15
AGRO815B	2	20	10	20	AGRO815B	2	16	8	16
AGRO815D	2	19	9.5	19	AGRO815D	2	12	6	12
					AGRO816A	2	12	6	12
AGRO818	1	9	9	18	AGRO818	1	16	16	32
AGRO848	1	3	3	6	AGRO848	1	4	4	8
					AGRO852	1	5	5	15
					AGRO894	1	5	5	10
AGRO897	1	3	3	12.99					
AGRO899	1	17	17	78.99	AGRO899	2	30	15	98
					AGRO906	1	7	7	21
AGRO919	1	14	14	28					
HORT919	1	1	1	2					
AGRO931	1	11	11	33	AGRO931	1	5	5	15
					AGRO991	1	9	9	9
					HORT991	1	1	1	1
AGRO992	1	9	9	9	AGRO992	1	14	14	14
AGRO993	1	2	2	2					
AGRO999	1	45	45	180.99	AGRO999	1	69	69	314.99
					HORT467	1	6	6	24
HORT467	1	7	7	28					

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Fall 2012					Fall 2016				
Course Number	No. of Sections	Registrations	Avg. Class Size	Student Credit Hours	Course Number	No. of Sections	Registrations	Avg. Class Size	Student Credit Hours
					HORT200	1	28	28	84
HORT1300	1	147	147	441					
HORT1310	5	103	20.6	103					
HORT133	2	31	15.5	31	HORT133	2	33	16.5	33
HORT170	1	6	6	12					
HORT2000	1	35	35	105					
HORT212	2	37	18.5	111	HORT212	2	21	10.5	63
HORT2120	1	6	6	18					
HORT214	1	30	30	90	HORT214	1	23	23	69
HORT261	1	81	81	243	HORT261	1	106	106	318
HORT265	1	10	10	30	HORT265	1	4	4	12
HORT270	1	3	3	9					
HORT352	1	24	24	48	HORT352	1	20	20	40
HORT353	1	15	15	30	HORT353	1	10	10	20
HORT354	1	16	16	32	HORT354	1	15	15	30
HORT355	1	8	8	16	HORT355	1	9	9	18
HORT395	1	15	15	21	HORT395	2	12	6	18
HORT3950	1	3	3	6					
HORT396	1	2	2	4					
HORT399	1	6	6	13	HORT399	1	3	3	6
HORT452	1	8	8	24	HORT452	1	2	2	6
SOIL453	1	1	1	3					
HORT453	1	7	7	21					
HORT471	1	30	30	90	HORT471	1	23	23	69
HORT871	1	1	1	3	HORT871	1	3	3	9
HORT499H	1	1	1	3					
HORT842B	1	4	4	12	HORT842B	1	8	8	24
HORT888	1	3	3	9	HORT888	1	1	1	3
					HORT896	1	1	1	1
HORT899	1	2	2	2.99	HORT899	1	2	2	4
HORT991	1	1	1	1					

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Fall 2012					Fall 2016				
Course Number	*No. of Sections*	*Registrations*	*Avg. Class Size*	*Student Credit Hours*	*Course Number*	*No. of Sections*	*Registrations*	*Avg. Class Size*	*Student Credit Hours*
HORT999	1	2	2	18					
					HORT999	1	1	1	3
SOIL354	1	4	4	12	SOIL354	1	3	3	9
					TLMT127	1	7	7	7
TLMT229	1	16	16	16	TLMT229	1	6	6	6
					TLMT326	1	5	5	15
TLMT327	1	13	13	39	TLMT327	1	11	11	33
TLMT395	1	29	29	34	TLMT395	2	17	8.5	20
					TLMT427	1	7	7	21
Totals	**132**	**1929**	**15**	**5060**		**134**	**1860**	**14**	**5164**

Table 6. Student credit hours by course level and department of the instructional staff teaching courses in fall semesters 2012 through 2016. Source: Office of Institutional Effectiveness and Analysis. July 2017

Student Credit Hours/Contact Hours by Department, Subject and Faculty Teaching the Course
Fall 2012 (20131)
College: College of Agri Sci and Natl Resources ***Department: Agronomy and Horticulture***

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Agribusiness Entrepreneurship									
Name of Instructor: Lambe,David Paul				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
EAEP275	001	200	AECN275	LEC	Agribus Entr Finance	100.00	5.00	15.00	15.00
EAEP488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	2.00	6.00	6.00
EAEP488	700	400	EAEP488	LEC	Bus Mgt In Ag Entprs	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Lambe,David Paul					***(3 detail records)***		*8.00*	*24.00*	*24.00*
Summary for 'Subject Area' = EAEP488 (3 detail records)							*8.00*	*24.00*	*24.00*
Agricultural Economics (AECN)									
Name of Instructor: Lambe,David Paul				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AECN275	001	200	AECN275	LEC	Agribus Entr Finance	100.00	23.00	69.00	69.00
Summary for 'Instructor' = Lambe,David Paul					***(1 detail record)***		*23.00*	*69.00*	*69.00*
Summary for 'Subject Area' = AECN275 (1 detail record)							*23.00*	*69.00*	*69.00*
Agricultural Engineering									
Name of Instructor: Ferguson,Richard B				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGEN431	151	400	AGEN431	LAB	Site-spec Crop Mgt	50.00	2.00	0.00	6.00
AGEN431	150	400	AGEN431	LEC	Site-spec Crop Mgt	50.00	2.00	6.00	4.00
Summary for 'Instructor' = Ferguson,Richard B					***(2 detail records)***		*4.00*	*6.00*	*10.00*
Summary for 'Subject Area' = AGEN431 (2 detail records)							*4.00*	*6.00*	*10.00*
Agricultural Sciences (AGRI)									
Name of Instructor: Lee,Donald J				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRI115	700	100	AGRI115	LEC	Biotch:food Hlth&env	50.00	14.00	42.00	42.00
Summary for 'Instructor' = Lee,Donald J					***(1 detail record)***		*14.00*	*42.00*	*42.00*
Name of Instructor: Miller,Ellen I				**Tenure Status: 3 Grad**		**Rank: 7 Grad Rch Asst**		**Full- or Part-Time: 3 Tch Asst**	
AGRI103	155	100	AGRI103	RCT	Intro Ag&nat Res Sys	25.00	5.50	0.00	5.50
Summary for 'Instructor' = Miller,Ellen I					***(1 detail record)***		*5.50*	*0.00*	*5.50*
Summary for 'Subject Area' = AGRI103 (2 detail records)							*19.50*	*42.00*	*47.50*
Agronomy (AGRO)									
Name of Instructor: Arkebauer,Timothy John				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO807	001	800	AGRO807	LEC	Plant-water Relation	100.00	15.00	45.00	45.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.55	0.25	1.00	1.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Arkebauer,Timothy John						***(2 detail records)***	*15.25*	*46.00*	*46.00*
Name of Instructor: Baenziger,Peter Stephen				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO896	001	800	AGRO496	IND	Independent Study	18.00	0.90	2.70	2.70
AGRO496	001	400	AGRO496	IND	Independent Study	18.00	0.36	0.36	0.36
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	7.73	3.48	14.00	14.00
AGRO815A	700	800	AGRO815A	LEC	Self Pollinated Crop	100.00	12.00	12.00	3.04
AGRO815B	700	800	AGRO815B	LEC	Germplasm & Genes	100.00	11.00	11.00	3.23
AGRO815B	951	800	AGRO815B	LEC	Germplasm & Genes	100.00	9.00	9.00	7.92
AGRO815A	951	800	AGRO815A	LEC	Self Pollinated Crop	100.00	10.00	10.00	7.60
Summary for 'Instructor' = Baenziger,Peter Stephen						***(7 detail records)***	*46.74*	*59.06*	*38.85*
Name of Instructor: Basset,Gilles JC				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.66	0.75	3.00	3.00
Summary for 'Instructor' = Basset,Gilles JC						***(1 detail record)***	*0.75*	*3.00*	*3.00*
Name of Instructor: Blanco Canqui,Humberto				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO269	001	200	AGRO269	LEC	Princ Soil Mgt	100.00	68.00	204.00	204.00
Summary for 'Instructor' = Blanco Canqui,Humberto						***(1 detail record)***	*68.00*	*204.00*	*204.00*
Name of Instructor: Clemente,Thomas E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	7.73	3.48	14.00	14.00
Summary for 'Instructor' = Clemente,Thomas E						***(1 detail record)***	*3.48*	*14.00*	*14.00*
Name of Instructor: Drijber,Rhae A				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	2.76	1.24	5.00	5.00
Summary for 'Instructor' = Drijber,Rhae A						***(1 detail record)***	*1.24*	*5.00*	*5.00*
Name of Instructor: Dunn,Cheryl D				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO844	151	800	AGRO444	LAB	Vegetation Analysis	30.00	0.30	0.00	1.20
AGRO844	150	800	AGRO444	LEC	Vegetation Analysis	50.00	0.50	1.50	1.00
AGRO242	001	200	AGRO242	LEC	N Amer Wild Plants	100.00	1.00	1.00	1.00
AGRO444	151	400	AGRO444	LAB	Vegetation Analysis	30.00	0.60	0.00	2.40
AGRO444	150	400	AGRO444	LEC	Vegetation Analysis	50.00	1.00	3.00	2.00
AGRO442	150	400	AGRO442	LEC	Wildland Plants	100.00	10.00	30.00	20.00
AGRO442	151	400	AGRO442	LAB	Wildland Plants	100.00	10.00	0.00	40.00
Summary for 'Instructor' = Dunn,Cheryl D						***(7 detail records)***	*23.40*	*35.50*	*67.60*
Name of Instructor: Dweikat,Ismail M				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO992	001	900	AGRO992	LEC	General Seminar	100.00	9.00	9.00	9.00
AGRO919	001	900	AGRO919	LEC	Plant Genetics	100.00	14.00	28.00	28.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO993	001	900	AGRO993	LEC	Smnr Rsh Prgm Propsl	100.00	2.00	2.00	2.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	7.73	3.48	14.00	14.00
Summary for 'Instructor' = Dweikat,Ismail M					***(4 detail records)***		*28.48*	*53.00*	*53.00*
Name of Instructor: Ferguson,Richard B				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	4.14	1.86	7.50	7.50
AGRO431	151	400	AGEN431	LAB	Site-spec Crop Mgt	50.00	7.50	0.00	22.50
AGRO431	150	400	AGEN431	LEC	Site-spec Crop Mgt	50.00	7.50	22.50	15.00
Summary for 'Instructor' = Ferguson,Richard B					***(3 detail records)***		*16.86*	*30.00*	*45.00*
Name of Instructor: French,Roy C				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	2.76	1.24	5.00	5.00
Summary for 'Instructor' = French,Roy C					***(1 detail record)***		*1.24*	*5.00*	*5.00*
Name of Instructor: Fromm,Michael E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.55	0.25	1.00	1.00
Summary for 'Instructor' = Fromm,Michael E					***(1 detail record)***		*0.25*	*1.00*	*1.00*
Name of Instructor: Gaussoin,Roch E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO896	001	800	AGRO496	IND	Independent Study	24.00	1.20	3.60	3.60
AGRO496	001	400	AGRO496	IND	Independent Study	24.00	0.48	0.48	0.48
AGRO897	700	800	AGRO897	IND	Masters: App Sci Proj	46.15	1.38	6.00	6.00
Summary for 'Instructor' = Gaussoin,Roch E					***(3 detail records)***		*3.06*	*10.08*	*10.08*
Name of Instructor: Graef,George L				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO295	001	200	AGRO295	FLD	Internship In Agro	100.00	7.00	13.00	13.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	2.53	0.43	2.00	2.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	12.71	5.72	23.00	23.00
Summary for 'Instructor' = Graef,George L					***(3 detail records)***		*13.15*	*38.00*	*38.00*
Name of Instructor: Graybosch,Robert A				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.66	0.75	3.00	3.00
Summary for 'Instructor' = Graybosch,Robert A					***(1 detail record)***		*0.75*	*3.00*	*3.00*
Name of Instructor: Guretzky,John Andrew				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	10.13	1.72	8.00	8.00
AGRO240	150	200	AGRO240	LEC	Forage Crop&rnge Mgt	100.00	61.00	244.00	183.00
AGRO240	151	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	21.00	0.00	42.00
AGRO240	152	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	20.00	0.00	40.00
AGRO240	153	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	20.00	0.00	40.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Guretzky,John Andrew						***(5 detail records)***	*123.72*	*252.00*	*313.00*
Name of Instructor: Hoegemeyer,Thomas				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
AGRO815D	700	800	AGRO815D	LEC	Cross Polinated Crop	100.00	8.00	8.00	2.35
AGRO815D	951	800	AGRO815D	LEC	Cross Polinated Crop	100.00	11.00	11.00	9.68
AGRO896	700	800	AGRO896	IND	Independent Study	25.00	0.50	1.00	1.00
Summary for 'Instructor' = Hoegemeyer,Thomas						***(3 detail records)***	*19.50*	*20.00*	*13.03*
Name of Instructor: Holding,David R				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	6.08	2.73	11.00	11.00
AGRO131	150	100	AGRO131	LEC	Plant Science	34.00	35.36	106.08	70.72
Summary for 'Instructor' = Holding,David R						***(2 detail records)***	*38.09*	*117.08*	*81.72*
Name of Instructor: Kettler,Timothy Alan				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO153	151	100	AGRO153	LAB	Soil Resources	50.00	6.50	0.00	26.00
AGRO153	154	100	AGRO153	LAB	Soil Resources	50.00	5.50	0.00	22.00
AGRO153	157	100	AGRO153	LAB	Soil Resources	50.00	4.50	0.00	18.00
AGRO153	155	100	AGRO153	LAB	Soil Resources	50.00	7.50	0.00	30.00
AGRO153	156	100	AGRO153	LAB	Soil Resources	50.00	6.50	0.00	26.00
AGRO153	153	100	AGRO153	LAB	Soil Resources	50.00	4.50	0.00	18.00
AGRO153	152	100	AGRO153	LAB	Soil Resources	50.00	8.50	0.00	34.00
Summary for 'Instructor' = Kettler,Timothy Alan						***(7 detail records)***	*43.50*	*0.00*	*174.00*
Name of Instructor: Klein,Robert N				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
AGRO896	950	800	AGRO896	IND	Independent Study	50.00	5.00	5.00	0.00
Summary for 'Instructor' = Klein,Robert N						***(1 detail record)***	*5.00*	*5.00*	*0.00*
Name of Instructor: Knezevic,Stevan				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.55	0.25	1.00	1.00
Summary for 'Instructor' = Knezevic,Stevan						***(1 detail record)***	*0.25*	*1.00*	*1.00*
Name of Instructor: Kruger,Greg R				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	28.48	4.84	22.50	22.50
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	4.70	2.11	8.50	8.50
Summary for 'Instructor' = Kruger,Greg R						***(2 detail records)***	*6.96*	*31.00*	*31.00*
Name of Instructor: Lambe,David Paul				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO275	001	200	AECN275	LEC	Agribus Entr Finance	100.00	1.00	3.00	3.00
AGRO488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	3.00	9.00	9.00
Summary for 'Instructor' = Lambe,David Paul						***(2 detail records)***	*4.00*	*12.00*	*12.00*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Name of Instructor: Lee,Donald J				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO131	155	100	AGRO131	RCT	Plant Science	100.00	26.00	0.00	52.00
AGRO315	154	300	AGRO315	LAB	Genetics	100.00	25.00	0.00	50.00
AGRO131	150	100	AGRO131	LEC	Plant Science	49.00	50.96	152.88	101.92
AGRO131	700	100	AGRO131	LEC	Plant Science	5.00	1.75	5.25	5.25
AGRO131	800	100	AGRO131	LEC	Plant Science	5.00	0.15	0.45	0.45
AGRO496	002	400	AGRO496	IND	Independent Study	66.67	2.00	6.00	6.00
AGRO496	001	400	AGRO496	IND	Independent Study	23.00	0.46	0.46	0.46
AGRO315	700	300	AGRO315	LEC	Genetics	50.00	6.00	24.00	24.00
AGRO131	153	100	AGRO131	RCT	Plant Science	100.00	25.00	0.00	50.00
AGRO896	001	800	AGRO496	IND	Independent Study	23.00	1.15	3.45	3.45
AGRO131	151	100	AGRO131	RCT	Plant Science	100.00	25.00	0.00	50.00
AGRO131	152	100	AGRO131	RCT	Plant Science	100.00	28.00	0.00	56.00
AGRO315	153	300	AGRO315	LAB	Genetics	100.00	30.00	0.00	60.00
AGRO315	152	300	AGRO315	LAB	Genetics	100.00	30.00	0.00	60.00
AGRO315	150	300	AGRO315	LEC	Genetics	100.00	85.00	340.00	255.00
Summary for 'Instructor' = Lee,Donald J					***(15 detail records)***		*336.47*	*532.49*	*774.53*
Name of Instructor: Leingang,Deanna H				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO315	700	300	AGRO315	LEC	Genetics	50.00	6.00	24.00	24.00
Summary for 'Instructor' = Leingang,Deanna H					***(1 detail record)***		*6.00*	*24.00*	*24.00*
Name of Instructor: Lindquist,John Leroy				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO896	003	800	AGRO896	IND	Independent Study	100.00	4.00	4.00	4.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	5.52	2.49	10.00	10.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	1.90	0.32	1.50	1.50
Summary for 'Instructor' = Lindquist,John Leroy					***(3 detail records)***		*6.81*	*15.50*	*15.50*
Name of Instructor: Lorenz,Aaron J				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	8.86	1.51	7.00	7.00
Summary for 'Instructor' = Lorenz,Aaron J					***(1 detail record)***		*1.51*	*7.00*	*7.00*
Name of Instructor: Mamo,Martha				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO153	150	100	AGRO153	LEC	Soil Resources	100.00	87.00	348.00	87.00
AGRO153	151	100	AGRO153	LAB	Soil Resources	50.00	6.50	0.00	26.00
AGRO153	153	100	AGRO153	LAB	Soil Resources	50.00	4.50	0.00	18.00
AGRO153	157	100	AGRO153	LAB	Soil Resources	50.00	4.50	0.00	18.00
AGRO153	155	100	AGRO153	LAB	Soil Resources	50.00	7.50	0.00	30.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO153	154	100	AGRO153	LAB	Soil Resources	50.00	5.50	0.00	22.00
AGRO153	152	100	AGRO153	LAB	Soil Resources	50.00	8.50	0.00	34.00
AGRO153	156	100	AGRO153	LAB	Soil Resources	50.00	6.50	0.00	26.00
Summary for 'Instructor' = Mamo,Martha					***(8 detail records)***		*130.50*	*348.00*	*261.00*
Name of Instructor: Mason,Stephen C				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO132	005	100	AGRO132	LAB	Agronmc Plant Sci Lab	100.00	21.00	21.00	42.00
AGRO132	006	100	AGRO132	LAB	Agronmc Plant Sci Lab	100.00	20.00	20.00	40.00
AGRO132	007	100	AGRO132	LAB	Agronmc Plant Sci Lab	100.00	18.00	18.00	36.00
AGRO405	001	400	AGRO405	LEC	Crop Mgt Strategies	100.00	24.00	72.00	72.00
AGRO132	004	100	AGRO132	LAB	Agronmc Plant Sci Lab	100.00	17.00	17.00	34.00
AGRO132	003	100	AGRO132	LAB	Agronmc Plant Sci Lab	100.00	24.00	24.00	48.00
AGRO132	002	100	AGRO132	LAB	Agronmc Plant Sci Lab	100.00	22.00	22.00	44.00
AGRO132	001	100	AGRO132	LAB	Agronmc Plant Sci Lab	100.00	24.00	24.00	48.00
AGRO201	001	200	AGRO201	LEC	Prep Agron Career	50.00	18.50	18.50	37.00
Summary for 'Instructor' = Mason,Stephen C					***(9 detail records)***		*188.50*	*236.50*	*401.00*
Name of Instructor: McCallister,Dennis L				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO455	001	400	AGRO455	LEC	Soil Chem&mineralogy	100.00	1.00	3.00	3.00
AGRO855	001	800	AGRO455	LEC	Soil Chem&mineralogy	100.00	9.00	27.00	27.00
AGRO201	001	200	AGRO201	LEC	Prep Agron Career	50.00	18.50	18.50	37.00
Summary for 'Instructor' = McCallister,Dennis L					***(3 detail records)***		*28.50*	*48.50*	*67.00*
Name of Instructor: Namuth Covert,Deana M				**Tenure Status: 4 Adjunct**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO496	701	400	AGRO496	IND	Independent Study	100.00	4.00	4.00	1.81
AGRO411	700	400	AGRO411	LEC	Crop Genetic Engr	100.00	10.00	10.00	4.53
AGRO896	701	800	AGRO496	IND	Independent Study	100.00	9.00	9.00	4.08
AGRO811	700	800	AGRO411	LEC	Crop Genetic Engr	100.00	16.00	16.00	7.25
Summary for 'Instructor' = Namuth Covert,Deana M					***(4 detail records)***		*39.00*	*39.00*	*17.68*
Name of Instructor: Regassa,Teshome				**Tenure Status: 4 Adjunct**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	0.63	0.11	0.50	0.50
Summary for 'Instructor' = Regassa,Teshome					***(1 detail record)***		*0.11*	*0.50*	*0.50*
Name of Instructor: Reicher,Zac J				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO427	951	400	AGRO427	LAB	Turfgrass Sys Mngt	100.00	2.00	0.00	7.84
AGRO427	950	400	AGRO427	LEC	Turfgrass Sys Mngt	100.00	2.00	6.00	2.24
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	4.42	1.99	8.00	8.00
AGRO227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	100.00	3.00	9.00	9.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Reicher,Zac J					***(4 detail records)***		*8.99*	*23.00*	*27.08*
Name of Instructor: Sandall,Leah Lynn				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO131	700	100	AGRO131	LEC	Plant Science	95.00	33.25	99.75	99.75
AGRO131	800	100	AGRO131	LEC	Plant Science	95.00	2.85	8.55	8.55
Summary for 'Instructor' = Sandall,Leah Lynn					***(2 detail records)***		*36.10*	*108.30*	*108.30*
Name of Instructor: Sandell,Lowell Donald				**Tenure Status: 4 Adjunct**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO896	001	800	AGRO496	IND	Independent Study	17.00	0.85	2.55	2.55
AGRO496	001	400	AGRO496	IND	Independent Study	17.00	0.34	0.34	0.34
Summary for 'Instructor' = Sandell,Lowell Donald					***(2 detail records)***		*1.19*	*2.89*	*2.89*
Name of Instructor: Santra,Dipak K				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	4.97	2.24	9.00	9.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	0.63	0.11	0.50	0.50
Summary for 'Instructor' = Santra,Dipak K					***(2 detail records)***		*2.35*	*9.50*	*9.50*
Name of Instructor: Schacht,Walter H				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO844	150	800	AGRO444	LEC	Vegetation Analysis	50.00	0.50	1.50	1.00
AGRO844	151	800	AGRO444	LAB	Vegetation Analysis	70.00	0.70	0.00	2.80
AGRO845	001	800	AGRO445	LEC	Livestock Mgt Range	50.00	2.50	7.50	7.50
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.66	0.75	3.00	3.00
AGRO445	001	400	AGRO445	LEC	Livestock Mgt Range	50.00	1.00	3.00	3.00
AGRO444	151	400	AGRO444	LAB	Vegetation Analysis	70.00	1.40	0.00	5.60
AGRO444	150	400	AGRO444	LEC	Vegetation Analysis	50.00	1.00	3.00	2.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	1.27	0.22	1.00	1.00
Summary for 'Instructor' = Schacht,Walter H					***(8 detail records)***		*8.06*	*19.00*	*25.90*
Name of Instructor: Shapiro,Charles Alan				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO897	700	800	AGRO897	IND	Masters: App Sci Proj	46.15	1.38	6.00	6.00
Summary for 'Instructor' = Shapiro,Charles Alan					***(1 detail record)***		*1.38*	*6.00*	*6.00*
Name of Instructor: Shaver,Timothy M				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	8.23	1.40	6.50	6.50
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	2.49	1.12	4.50	4.50
Summary for 'Instructor' = Shaver,Timothy M					***(2 detail records)***		*2.52*	*11.00*	*11.00*
Name of Instructor: Skopp,Joseph M				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
AGRO461	001	400	AGRO461	LEC	Soil Physics	100.00	2.00	6.00	6.00
AGRO861	001	800	AGRO461	LEC	Soil Physics	100.00	3.00	9.00	9.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Skopp,Joseph M					***(2 detail records)***		*5.00*	*15.00*	*15.00*
Name of Instructor: Streich,Anne Marie			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
AGRO131	150	100	AGRO131	LEC	Plant Science	17.00	17.68	53.04	35.36
AGRO395	001	300	AGRO395	FLD	Career Experience	100.00	1.00	1.00	1.00
AGRO496	002	400	AGRO496	IND	Independent Study	33.33	1.00	3.00	3.00
Summary for 'Instructor' = Streich,Anne Marie					***(3 detail records)***		*19.68*	*57.04*	*39.36*
Name of Instructor: Stubbendieck,James L			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.55	0.25	1.00	1.00
Summary for 'Instructor' = Stubbendieck,James L					***(1 detail record)***		*0.25*	*1.00*	*1.00*
Name of Instructor: Todd,Kim Anne			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO228	150	200	AGRO228	LEC	Intro Landscape Mngt	100.00	2.00	6.00	4.00
AGRO228	151	200	AGRO228	LAB	Intro Landscape Mngt	100.00	2.00	0.00	6.00
AGRO326	150	300	AGRO326	LEC	Landscape Solutions	100.00	1.00	3.00	1.00
AGRO326	151	300	AGRO326	LAB	Landscape Solutions	100.00	1.00	0.00	4.00
AGRO896	001	800	AGRO496	IND	Independent Study	18.00	0.90	2.70	2.70
AGRO496	001	400	AGRO496	IND	Independent Study	18.00	0.36	0.36	0.36
Summary for 'Instructor' = Todd,Kim Anne					***(6 detail records)***		*7.26*	*12.06*	*18.06*
Name of Instructor: Volesky,Jerry D			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.38	0.62	2.50	2.50
AGRO899	001	800	AGRO899	IND	Masters Thesis	1.27	0.22	1.00	1.00
Summary for 'Instructor' = Volesky,Jerry D					***(2 detail records)***		*0.84*	*3.50*	*3.50*
Name of Instructor: Walia,Harkamal			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO899	001	800	AGRO899	IND	Masters Thesis	3.80	0.65	3.00	3.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	4.14	1.86	7.50	7.50
Summary for 'Instructor' = Walia,Harkamal					***(2 detail records)***		*2.51*	*10.50*	*10.50*
Name of Instructor: Wilson Jr,Robert G			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	4.97	2.24	9.00	9.00
Summary for 'Instructor' = Wilson Jr,Robert G					***(1 detail record)***		*2.24*	*9.00*	*9.00*
Name of Instructor: Wortmann,Charles Stephen			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO896	700	800	AGRO896	IND	Independent Study	75.00	1.50	3.00	3.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	3.80	0.65	3.00	3.00
Summary for 'Instructor' = Wortmann,Charles Stephen					***(2 detail records)***		*2.15*	*6.00*	*6.00*
Name of Instructor: Young,Steve L			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO899	001	800	AGRO899	IND	Masters Thesis	0.63	0.11	0.50	0.50
Summary for 'Instructor' = Young,Steve L					***(1 detail record)***		*0.11*	*0.50*	*0.50*
Summary for 'Subject Area' = AGRO899 (145 detail records)							*1,301.68*	*2,490.50*	*3,021.07*
Animal Science									
Name of Instructor: Schacht,Walter H			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
ASCI451	001	400	AGRO445	LEC	Livestock Mgt Range	50.00	6.00	18.00	18.00
ASCI851	001	800	AGRO445	LEC	Livestock Mgt Range	50.00	0.50	1.50	1.50
Summary for 'Instructor' = Schacht,Walter H					***(2 detail records)***		*6.50*	*19.50*	*19.50*
Summary for 'Subject Area' = AGRO445 (2 detail records)							*6.50*	*19.50*	*19.50*
Architecture									
Name of Instructor: Todd,Kim Anne			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
ARCH567	001	500	ARCH567	LEC	Planting Design	100.00	2.00	8.00	12.00
Summary for 'Instructor' = Todd,Kim Anne					***(1 detail record)***		*2.00*	*8.00*	*12.00*
Summary for 'Subject Area' = ARCH567 (1 detail record)							*2.00*	*8.00*	*12.00*
Biological Sciences (BIOS)									
Name of Instructor: Arkebauer,Timothy John			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
BIOS817	001	800	AGRO807	LEC	Plant-water Relation	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Arkebauer,Timothy John					***(1 detail record)***		*1.00*	*3.00*	*3.00*
Name of Instructor: Elthon,Thomas E			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
BIOS878	150	800	BIOS478	LEC	Plant Anatomy	100.00	6.00	24.00	18.00
BIOS478	150	400	BIOS478	LEC	Plant Anatomy	100.00	5.00	20.00	15.00
Summary for 'Instructor' = Elthon,Thomas E					***(2 detail records)***		*11.00*	*44.00*	*33.00*
Name of Instructor: Kapil,Sasha Rani			**Tenure Status: 4 Adjunct**		**Rank: 8 Undergrad Tch Asst**		**Full- or Part-Time: 2 Part-time**		
BIOS213L	117	200	BIOS213L	LAB	Human Physio Lab	100.00	23.00	23.00	69.00
Summary for 'Instructor' = Kapil,Sasha Rani					***(1 detail record)***		*23.00*	*23.00*	*69.00*
Name of Instructor: Mower,Jeffrey P			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
BIOS999	001	900	BIOS999	IND	Doctoral Dissertatn	5.21	3.07	15.00	15.00
Summary for 'Instructor' = Mower,Jeffrey P					***(1 detail record)***		*3.07*	*15.00*	*15.00*
Summary for 'Subject Area' = BIOS999 (5 detail records)							*38.07*	*85.00*	*120.00*
Chemistry									
Name of Instructor: Nielsen,Jessie Renee			**Tenure Status: 4 Adjunct**		**Rank: 8 Undergrad Tch Asst**		**Full- or Part-Time: 2 Part-time**		
CHEM109	610	100	CHEM109	LAB	General Chemistry I	100.00	24.00	0.00	72.00
Summary for 'Instructor' = Nielsen,Jessie Renee					***(1 detail record)***		*24.00*	*0.00*	*72.00*
Summary for 'Subject Area' = CHEM109 (1 detail record)							*24.00*	*0.00*	*72.00*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Entomology									
Name of Instructor: Baenziger,Peter Stephen				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
ENTO815A	700	800	AGRO815A	LEC	Self Pollinated Crop	100.00	1.00	1.00	0.25
ENTO815B	700	800	AGRO815B	LEC	Germplasm & Genes	100.00	2.00	2.00	0.59
Summary for 'Instructor' = Baenziger,Peter Stephen						***(2 detail records)***	*3.00*	*3.00*	*0.84*
Summary for 'Subject Area' = AGRO815B (2 detail records)							*3.00*	*3.00*	*0.84*
Entrepreneurship									
Name of Instructor: Lambe,David Paul				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
ENTR488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	4.00	12.00	12.00
ENTR488	700	400	EAEP488	LEC	Bus Mgt In Ag Entprs	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Lambe,David Paul						***(2 detail records)***	*5.00*	*15.00*	*15.00*
Summary for 'Subject Area' = EAEP488 (2 detail records)							*5.00*	*15.00*	*15.00*
Grassland Studies									
Name of Instructor: Guretzky,John Andrew				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
GRAS490	001	400	GRAS490	FLD	Internship Experienc	50.00	3.00	5.00	5.00
Summary for 'Instructor' = Guretzky,John Andrew						***(1 detail record)***	*3.00*	*5.00*	*5.00*
Summary for 'Subject Area' = GRAS490 (1 detail record)							*3.00*	*5.00*	*5.00*
Horticulture									
Name of Instructor: Adams,Stacy Ardean				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
HORT399	001	300	HORT399	IND	Independent Study	23.08	1.38	3.00	3.00
HORT133	002	100	HORT133	LAB	Hort Plant Sci Lab	100.00	15.00	15.00	30.00
HORT395	001	300	HORT395	FLD	Career Experience	100.00	15.00	21.00	21.00
HORT133	001	100	HORT133	LAB	Hort Plant Sci Lab	100.00	16.00	16.00	32.00
Summary for 'Instructor' = Adams,Stacy Ardean						***(4 detail records)***	*47.38*	*55.00*	*86.00*
Name of Instructor: Dweikat,Ismail M				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT919	001	900	AGRO919	LEC	Plant Genetics	100.00	1.00	2.00	2.00
Summary for 'Instructor' = Dweikat,Ismail M						***(1 detail record)***	*1.00*	*2.00*	*2.00*
Name of Instructor: Gaussoin,Roch E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT999	001	900	HORT999	IND	Doctoral Dissertatn	50.00	1.00	9.00	9.00
Summary for 'Instructor' = Gaussoin,Roch E						***(1 detail record)***	*1.00*	*9.00*	*9.00*
Name of Instructor: Holding,David R				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
HORT131	150	100	AGRO131	LEC	Plant Science	34.00	4.42	13.26	8.84
Summary for 'Instructor' = Holding,David R						***(1 detail record)***	*4.42*	*13.26*	*8.84*
Name of Instructor: Kettler,Timothy Alan				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
HORT153	151	100	AGRO153	LAB	Soil Resources	50.00	3.00	0.00	12.00
HORT153	157	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	156	100	AGRO153	LAB	Soil Resources	50.00	1.50	0.00	6.00
HORT153	155	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	154	100	AGRO153	LAB	Soil Resources	50.00	2.00	0.00	8.00
HORT153	153	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	152	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
Summary for 'Instructor' = Kettler,Timothy Alan					***(7 detail records)***		*8.50*	*0.00*	*34.00*
Name of Instructor: Lambe,David Paul			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
HORT488	700	400	EAEP488	LEC	Bus Mgt In Ag Entprs	100.00	9.00	27.00	27.00
HORT261	156	200	HORT261	LAB	Floral Design I	100.00	19.00	0.00	38.00
HORT261	155	200	HORT261	LAB	Floral Design I	100.00	20.00	0.00	40.00
HORT261	153	200	HORT261	LAB	Floral Design I	100.00	20.00	0.00	40.00
HORT261	152	200	HORT261	LAB	Floral Design I	100.00	22.00	0.00	44.00
HORT261	150	200	HORT261	LEC	Floral Design I	100.00	81.00	243.00	162.00
HORT275	001	200	AECN275	LEC	Agribus Entr Finance	100.00	2.00	6.00	6.00
HORT888	991	800	HORT888	LEC	Bus Mgt In Ag Entprs	100.00	3.00	9.00	9.00
HORT399	001	300	HORT399	IND	Independent Study	69.23	4.15	9.00	9.00
HORT488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	6.00	18.00	18.00
Summary for 'Instructor' = Lambe,David Paul					***(10 detail records)***		*186.15*	*312.00*	*393.00*
Name of Instructor: Lee,Donald J			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
HORT131	153	100	AGRO131	RCT	Plant Science	100.00	6.00	0.00	12.00
HORT131	150	100	AGRO131	LEC	Plant Science	49.00	6.37	19.11	12.74
HORT131	151	100	AGRO131	RCT	Plant Science	100.00	4.00	0.00	8.00
HORT131	152	100	AGRO131	RCT	Plant Science	100.00	1.00	0.00	2.00
HORT131	155	100	AGRO131	RCT	Plant Science	100.00	2.00	0.00	4.00
HORT131	700	100	AGRO131	LEC	Plant Science	5.00	0.20	0.60	0.60
Summary for 'Instructor' = Lee,Donald J					***(6 detail records)***		*19.57*	*19.71*	*39.34*
Name of Instructor: Mamo,Martha			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
HORT153	157	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	155	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	152	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	154	100	AGRO153	LAB	Soil Resources	50.00	2.00	0.00	8.00
HORT153	153	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
HORT153	156	100	AGRO153	LAB	Soil Resources	50.00	1.50	0.00	6.00
HORT153	150	100	AGRO153	LEC	Soil Resources	100.00	17.00	68.00	17.00
HORT153	151	100	AGRO153	LAB	Soil Resources	50.00	3.00	0.00	12.00
Summary for 'Instructor' = Mamo,Martha					***(8 detail records)***		*25.50*	*68.00*	*51.00*
Name of Instructor: McCallister,Dennis L			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
HORT453	001	400	HORT453	LEC	Urban Soil & Mngt	100.00	7.00	21.00	21.00
Summary for 'Instructor' = McCallister,Dennis L					***(1 detail record)***		*7.00*	*21.00*	*21.00*
Name of Instructor: Paparozzi,Ellen T			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
HORT355	001	300	HORT355	LAB	Perennl Pot Plnt Lab	100.00	8.00	16.00	24.00
HORT352	001	300	HORT352	LEC	Prod&physio Of Crops	50.00	12.00	24.00	24.00
Summary for 'Instructor' = Paparozzi,Ellen T					***(2 detail records)***		*20.00*	*40.00*	*48.00*
Name of Instructor: Read,Paul E			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
HORT352	001	300	HORT352	LEC	Prod&physio Of Crops	50.00	12.00	24.00	24.00
HORT871	950	800	HORT471	LEC	Vines Wines & You	100.00	1.00	3.00	2.56
HORT871	951	800	HORT471	LAB	Vines Wines & You	100.00	1.00	0.00	0.43
HORT353	001	300	HORT353	LAB	Veg Crop Prodctn Lab	100.00	15.00	30.00	45.00
HORT471	951	400	HORT471	LAB	Vines Wines & You	100.00	30.00	0.00	12.80
HORT999	001	900	HORT999	IND	Doctoral Dissertatn	50.00	1.00	9.00	9.00
HORT471	950	400	HORT471	LEC	Vines Wines & You	100.00	30.00	90.00	76.80
HORT899	001	800	HORT899	IND	Masters Thesis	33.33	0.67	1.00	1.00
HORT354	001	300	HORT354	LAB	Fruit Production Lab	100.00	16.00	32.00	48.00
Summary for 'Instructor' = Read,Paul E					***(9 detail records)***		*106.67*	*189.00*	*219.59*
Name of Instructor: Reicher,Zac J			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
HORT227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	100.00	10.00	30.00	30.00
Summary for 'Instructor' = Reicher,Zac J					***(1 detail record)***		*10.00*	*30.00*	*30.00*
Name of Instructor: Sandall,Leah Lynn			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
HORT131	700	100	AGRO131	LEC	Plant Science	95.00	3.80	11.40	11.40
Summary for 'Instructor' = Sandall,Leah Lynn					***(1 detail record)***		*3.80*	*11.40*	*11.40*
Name of Instructor: Simmons,Gregory Scott			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**		
HORT170	001	100	HORT170	LEC	Resdntl Landscp Dsgn	100.00	6.00	12.00	18.00
HORT212	002	200	HORT212	LEC	Landscape Plants I	10.00	1.70	5.10	5.10
Summary for 'Instructor' = Simmons,Gregory Scott					***(2 detail records)***		*7.70*	*17.10*	*23.10*
Name of Instructor: Streich,Anne Marie			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
HORT396	001	300	HORT396	IND	Current Projcts&tpcs	75.00	1.50	3.00	3.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
HORT131	150	100	AGRO131	LEC	Plant Science	17.00	2.21	6.63	4.42
HORT399	001	300	HORT399	IND	Independent Study	7.69	0.46	1.00	1.00
Summary for 'Instructor' = Streich,Anne Marie					***(3 detail records)***		*4.17*	*10.63*	*8.42*
Name of Instructor: Sutton,Richard K				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT212	001	200	HORT212	LEC	Landscape Plants I	100.00	20.00	60.00	60.00
HORT212	002	200	HORT212	LEC	Landscape Plants I	90.00	15.30	45.90	45.90
HORT265	001	200	HORT265	LAB	Vis Com Landscp Dsgn	100.00	10.00	30.00	50.00
Summary for 'Instructor' = Sutton,Richard K					***(3 detail records)***		*45.30*	*135.90*	*155.90*
Name of Instructor: Todd,Kim Anne				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
HORT467	001	400	ARCH567	LEC	Planting Design	100.00	7.00	28.00	42.00
HORT326	150	300	AGRO326	LEC	Landscape Solutions	100.00	1.00	3.00	1.00
HORT214	001	200	HORT214	LEC	Herbaceous Plants	100.00	30.00	90.00	90.00
HORT228	150	200	AGRO228	LEC	Intro Landscape Mngt	100.00	7.00	21.00	14.00
HORT228	151	200	AGRO228	LAB	Intro Landscape Mngt	100.00	7.00	0.00	21.00
HORT899	001	800	HORT899	IND	Masters Thesis	66.67	1.33	2.00	2.00
HORT326	151	300	AGRO326	LAB	Landscape Solutions	100.00	1.00	0.00	4.00
HORT396	001	300	HORT396	IND	Current Projcts&tpcs	25.00	0.50	1.00	1.00
Summary for 'Instructor' = Todd,Kim Anne					***(8 detail records)***		*54.83*	*145.00*	*175.00*
Name of Instructor: Twigg,Paul				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
HORT842B	992	800	HORT842B	LEC	Plant Physiology	100.00	4.00	12.00	11.36
Summary for 'Instructor' = Twigg,Paul					***(1 detail record)***		*4.00*	*12.00*	*11.36*
Name of Instructor: Waters,Brian M				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
HORT499H	001	400	HORT499H	IND	Honors Thesis	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Waters,Brian M					***(1 detail record)***		*1.00*	*3.00*	*3.00*
Summary for 'Subject Area' = HORT499H (70 detail records)							*558.00*	*1,094.00*	*1,329.95*
Horticulture - Omaha									
Name of Instructor: Gustafson,William A				**Tenure Status: 4 Adjunct**		**Rank: 1 Professor**		**Full- or Part-Time: 2 Part-time**	
HORT1310	004	100	HORT1310	LAB	Horticultural Sciences Lab	100.00	24.00	24.00	60.00
HORT1310	002	100	HORT1310	LAB	Horticultural Sciences Lab	100.00	16.00	16.00	40.00
HORT1310	001	100	HORT1310	LAB	Horticultural Sciences Lab	100.00	24.00	24.00	60.00
HORT1310	005	100	HORT1310	LAB	Horticultural Sciences Lab	100.00	16.00	16.00	40.00
HORT1300	001	100	HORT1300	LEC	Intro Horticultural Sciences	100.00	147.00	441.00	441.00
HORT1310	003	100	HORT1310	LAB	Horticultural Sciences Lab	100.00	23.00	23.00	57.50
Summary for 'Instructor' = Gustafson,William A					***(6 detail records)***		*250.00*	*544.00*	*698.50*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Name of Instructor: Rodie,Steven N			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
HORT2120	001	200	HORT2120	LEC	Landscape Plants I	100.00	6.00	18.00	36.00
HORT2000	001	200	HORT2000	LEC	Landscape & Env Apprec	100.00	35.00	105.00	70.00
HORT2000	002	200	HORT2000	RCT	Landscape & Env Apprec	100.00	35.00	0.00	35.00
HORT3950	001	300	HORT3950	FLD	Career Experience	100.00	3.00	6.00	6.00
Summary for 'Instructor' = Rodie,Steven N					***(4 detail records)***		*79.00*	*129.00*	*147.00*
Summary for 'Subject Area' = HORT3950 (10 detail records)							*329.00*	*673.00*	*845.50*
Landscape Architecture									
Name of Instructor: McCallister,Dennis L			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
LARC453	001	400	HORT453	LEC	Urban Soil & Mngt	100.00	5.00	15.00	15.00
Summary for 'Instructor' = McCallister,Dennis L					***(1 detail record)***		*5.00*	*15.00*	*15.00*
Name of Instructor: Simmons,Gregory Scott			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**		
LARC212	002	200	HORT212	LEC	Landscape Plants I	10.00	0.40	1.20	1.20
Summary for 'Instructor' = Simmons,Gregory Scott					***(1 detail record)***		*0.40*	*1.20*	*1.20*
Name of Instructor: Sutton,Richard K			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
LARC498	001	400	LARC498	LEC	Topic Landscape Arch	100.00	1.00	1.00	1.00
LARC487	001	400	LARC487	LEC	Intro Landscape Ecol	100.00	8.00	24.00	24.00
LARC212	001	200	HORT212	LEC	Landscape Plants I	100.00	2.00	6.00	6.00
LARC212	002	200	HORT212	LEC	Landscape Plants I	90.00	3.60	10.80	10.80
Summary for 'Instructor' = Sutton,Richard K					***(4 detail records)***		*14.60*	*41.80*	*41.80*
Name of Instructor: Todd,Kim Anne			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
LARC497	002	400	LARC497	LEC	Selected Topics	100.00	12.00	24.00	24.00
Summary for 'Instructor' = Todd,Kim Anne					***(1 detail record)***		*12.00*	*24.00*	*24.00*
Summary for 'Subject Area' = LARC497 (7 detail records)							*32.00*	*82.00*	*82.00*
Mechanized Systems Management									
Name of Instructor: Ferguson,Richard B			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
MSYM431	150	400	AGEN431	LEC	Site-spec Crop Mgt	50.00	4.00	12.00	8.00
MSYM431	151	400	AGEN431	LAB	Site-spec Crop Mgt	50.00	4.00	0.00	12.00
Summary for 'Instructor' = Ferguson,Richard B					***(2 detail records)***		*8.00*	*12.00*	*20.00*
Summary for 'Subject Area' = AGEN431 (2 detail records)							*8.00*	*12.00*	*20.00*
Natural Resources									
Name of Instructor: Arkebauer,Timothy John			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
NRES807	001	800	AGRO807	LEC	Plant-water Relation	100.00	2.00	6.00	6.00
Summary for 'Instructor' = Arkebauer,Timothy John					***(1 detail record)***		*2.00*	*6.00*	*6.00*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Name of Instructor: Dunn,Cheryl D				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
NRES442	150	400	AGRO442	LEC	Wildland Plants	100.00	6.00	18.00	12.00
NRES442	151	400	AGRO442	LAB	Wildland Plants	100.00	6.00	0.00	24.00
Summary for 'Instructor' = Dunn,Cheryl D					***(2 detail records)***		*12.00*	*18.00*	*36.00*
Name of Instructor: McCallister,Dennis L				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
NRES855	001	800	AGRO455	LEC	Soil Chem&mineralogy	100.00	3.00	9.00	9.00
Summary for 'Instructor' = McCallister,Dennis L					***(1 detail record)***		*3.00*	*9.00*	*9.00*
Name of Instructor: Miller,Ellen I				**Tenure Status: 3 Grad**		**Rank: 7 Grad Rch Asst**		**Full- or Part-Time: 3 Tch Asst**	
NRES103	155	100	AGRI103	RCT	Intro Ag&nat Res Sys	25.00	1.00	0.00	1.00
Summary for 'Instructor' = Miller,Ellen I					***(1 detail record)***		*1.00*	*0.00*	*1.00*
Name of Instructor: Simmons,Gregory Scott				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
NRES212	002	200	HORT212	LEC	Landscape Plants I	10.00	0.30	0.90	0.90
Summary for 'Instructor' = Simmons,Gregory Scott					***(1 detail record)***		*0.30*	*0.90*	*0.90*
Name of Instructor: Sutton,Richard K				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
NRES212	002	200	HORT212	LEC	Landscape Plants I	90.00	2.70	8.10	8.10
Summary for 'Instructor' = Sutton,Richard K					***(1 detail record)***		*2.70*	*8.10*	*8.10*
Summary for 'Subject Area' = HORT212 (7 detail records)							*21.00*	*42.00*	*61.00*
Nutrition & Health Sciences									
Name of Instructor: Read,Paul E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
NUTR471	950	400	HORT471	LEC	Vines Wines & You	100.00	18.00	54.00	46.08
NUTR471	951	400	HORT471	LAB	Vines Wines & You	100.00	18.00	0.00	7.68
Summary for 'Instructor' = Read,Paul E					***(2 detail records)***		*36.00*	*54.00*	*53.76*
Summary for 'Subject Area' = HORT471 (2 detail records)							*36.00*	*54.00*	*53.76*
Prof Golf Management Program									
Name of Instructor: Reicher,Zac J				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
PGAM227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	100.00	11.00	33.00	33.00
Summary for 'Instructor' = Reicher,Zac J					***(1 detail record)***		*11.00*	*33.00*	*33.00*
Summary for 'Subject Area' = AGRO227 (1 detail record)							*11.00*	*33.00*	*33.00*
Range Science									
Name of Instructor: Dunn,Cheryl D				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
RNGE442	150	400	AGRO442	LEC	Wildland Plants	100.00	3.00	9.00	6.00
RNGE444	151	400	AGRO444	LAB	Vegetation Analysis	30.00	0.30	0.00	1.20
RNGE444	150	400	AGRO444	LEC	Vegetation Analysis	50.00	0.50	1.50	1.00
RNGE442	151	400	AGRO442	LAB	Wildland Plants	100.00	3.00	0.00	12.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Dunn,Cheryl D					***(4 detail records)***		*6.80*	*10.50*	*20.20*
Name of Instructor: Guretzky,John Andrew				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
RNGE240	153	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	3.00	0.00	6.00
RNGE240	152	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	1.00	0.00	2.00
RNGE240	151	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	2.00	0.00	4.00
RNGE240	150	200	AGRO240	LEC	Forage Crop&rnge Mgt	100.00	6.00	24.00	18.00
Summary for 'Instructor' = Guretzky,John Andrew					***(4 detail records)***		*12.00*	*24.00*	*30.00*
Name of Instructor: Schacht,Walter H				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
RNGE444	151	400	AGRO444	LAB	Vegetation Analysis	70.00	0.70	0.00	2.80
RNGE445	001	400	AGRO445	LEC	Livestock Mgt Range	50.00	0.50	1.50	1.50
RNGE444	150	400	AGRO444	LEC	Vegetation Analysis	50.00	0.50	1.50	1.00
Summary for 'Instructor' = Schacht,Walter H					***(3 detail records)***		*1.70*	*3.00*	*5.30*
Summary for 'Subject Area' = AGRO444 (11 detail records)							*20.50*	*37.50*	*55.50*
Soil Science									
Name of Instructor: Blanco Canqui,Humberto				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
SOIL269	001	200	AGRO269	LEC	Princ Soil Mgt	100.00	8.00	24.00	24.00
Summary for 'Instructor' = Blanco Canqui,Humberto					***(1 detail record)***		*8.00*	*24.00*	*24.00*
Name of Instructor: Kettler,Timothy Alan				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
SOIL153	153	100	AGRO153	LAB	Soil Resources	50.00	6.00	0.00	24.00
SOIL153	157	100	AGRO153	LAB	Soil Resources	50.00	5.50	0.00	22.00
SOIL153	156	100	AGRO153	LAB	Soil Resources	50.00	3.00	0.00	12.00
SOIL153	155	100	AGRO153	LAB	Soil Resources	50.00	2.50	0.00	10.00
SOIL153	154	100	AGRO153	LAB	Soil Resources	50.00	3.50	0.00	14.00
SOIL153	152	100	AGRO153	LAB	Soil Resources	50.00	2.00	0.00	8.00
SOIL153	151	100	AGRO153	LAB	Soil Resources	50.00	2.50	0.00	10.00
Summary for 'Instructor' = Kettler,Timothy Alan					***(7 detail records)***		*25.00*	*0.00*	*100.00*
Name of Instructor: Mamo,Martha				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
SOIL153	157	100	AGRO153	LAB	Soil Resources	50.00	5.50	0.00	22.00
SOIL153	154	100	AGRO153	LAB	Soil Resources	50.00	3.50	0.00	14.00
SOIL153	153	100	AGRO153	LAB	Soil Resources	50.00	6.00	0.00	24.00
SOIL153	150	100	AGRO153	LEC	Soil Resources	100.00	50.00	200.00	50.00
SOIL153	151	100	AGRO153	LAB	Soil Resources	50.00	2.50	0.00	10.00
SOIL153	156	100	AGRO153	LAB	Soil Resources	50.00	3.00	0.00	12.00
SOIL153	155	100	AGRO153	LAB	Soil Resources	50.00	2.50	0.00	10.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
SOIL153	152	100	AGRO153	LAB	Soil Resources	50.00	2.00	0.00	8.00
Summary for 'Instructor' = Mamo,Martha					***(8 detail records)***		*75.00*	*200.00*	*150.00*
Name of Instructor: McCallister,Dennis L			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
SOIL455	001	400	AGRO455	LEC	Soil Chem&mineralogy	100.00	2.00	6.00	6.00
SOIL453	001	400	HORT453	LEC	Urban Soil & Mngt	100.00	1.00	3.00	3.00
Summary for 'Instructor' = McCallister,Dennis L					***(2 detail records)***		*3.00*	*9.00*	*9.00*
Summary for 'Subject Area' = HORT453 (18 detail records)							*111.00*	*233.00*	*283.00*
Turfgrass & Landscape Mngt									
Name of Instructor: Amundsen,Keenan L			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
TLMT327	151	300	TLMT327	LAB	Turfgrass Sci & Mngt	50.00	6.50	0.00	13.00
TLMT327	150	300	TLMT327	LEC	Turfgrass Sci & Mngt	50.00	6.50	19.50	13.00
Summary for 'Instructor' = Amundsen,Keenan L					***(2 detail records)***		*13.00*	*19.50*	*26.00*
Name of Instructor: Dworak,Scott Matthew			**Tenure Status: 3 Grad**		**Rank: 7 Grad Rch Asst**		**Full- or Part-Time: 3 Tch Asst**		
TLMT327	150	300	TLMT327	LEC	Turfgrass Sci & Mngt	50.00	6.50	19.50	13.00
TLMT327	151	300	TLMT327	LAB	Turfgrass Sci & Mngt	50.00	6.50	0.00	13.00
Summary for 'Instructor' = Dworak,Scott Matthew					***(2 detail records)***		*13.00*	*19.50*	*26.00*
Name of Instructor: Reicher,Zac J			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
TLMT427	950	400	AGRO427	LEC	Turfgrass Sys Mngt	100.00	9.00	27.00	10.08
TLMT229	001	200	TLMT229	LAB	Int:turfgrass Mgt Lab	100.00	16.00	16.00	56.00
TLMT227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	100.00	26.00	78.00	78.00
TLMT427	951	400	AGRO427	LAB	Turfgrass Sys Mngt	100.00	9.00	0.00	35.28
Summary for 'Instructor' = Reicher,Zac J					***(4 detail records)***		*60.00*	*121.00*	*179.36*
Name of Instructor: Streich,Anne Marie			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
TLMT395	001	300	TLMT395	FLD	Career Experience	100.00	29.00	34.00	43.50
Summary for 'Instructor' = Streich,Anne Marie					***(1 detail record)***		*29.00*	*34.00*	*43.50*
Name of Instructor: Todd,Kim Anne			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
TLMT326	151	300	AGRO326	LAB	Landscape Solutions	100.00	3.00	0.00	12.00
TLMT326	150	300	AGRO326	LEC	Landscape Solutions	100.00	3.00	9.00	3.00
TLMT228	151	200	AGRO228	LAB	Intro Landscape Mngt	100.00	23.00	0.00	69.00
TLMT228	150	200	AGRO228	LEC	Intro Landscape Mngt	100.00	23.00	69.00	46.00
Summary for 'Instructor' = Todd,Kim Anne					***(4 detail records)***		*52.00*	*78.00*	*130.00*
Summary for 'Subject Area' = AGRO228 (13 detail records)							*167.00*	*272.00*	*404.86*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Grand Total of Courses taught by Faculty in Agronomy and Horticulture							***2,731.25***	***5,299.50***	***6,584.48***

Note: Sorted by instructor and then subject area. This listing includes courses such as labs which may not have credit hours attached to them.

Student Credit Hours/Contact Hours by Department, Subject and Faculty Teaching the Course
Fall 2013 (20141)
College: College of Agri Sci and Natl Resources *Department: Agronomy and Horticulture*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Agribusiness Entrepreneurship									
Name of Instructor: Lambe,David Paul				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
EAEP275	700	200	AECN275	LEC	Agribus Entr Finance	100.00	3.00	9.00	9.00
EAEP488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	3.00	9.00	9.00
EAEP275	001	200	AECN275	LEC	Agribus Entr Finance	100.00	3.00	9.00	9.00
EAEP388	001	300	AGRO388	IND	Agribusiness Entrshp	71.00	3.55	10.65	10.65
Summary for 'Instructor' = Lambe,David Paul						***(4 detail records)***	*12.55*	*37.65*	*37.65*
Summary for 'Subject Area' = AGRO388 (4 detail records)							*12.55*	*37.65*	*37.65*
Agricultural Economics (AECN)									
Name of Instructor: Lambe,David Paul				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AECN275	700	200	AECN275	LEC	Agribus Entr Finance	100.00	21.00	63.00	63.00
AECN275	001	200	AECN275	LEC	Agribus Entr Finance	100.00	19.00	57.00	57.00
Summary for 'Instructor' = Lambe,David Paul						***(2 detail records)***	*40.00*	*120.00*	*120.00*
Summary for 'Subject Area' = AECN275 (2 detail records)							*40.00*	*120.00*	*120.00*
Agricultural Engineering									
Name of Instructor: Ferguson,Richard B				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGEN431	150	400	AGEN431	LEC	Site-spec Crop Mgt	50.00	3.00	9.00	6.00
AGEN431	152	400	AGEN431	LAB	Site-spec Crop Mgt	50.00	3.00	0.00	9.00
Summary for 'Instructor' = Ferguson,Richard B						***(2 detail records)***	*6.00*	*9.00*	*15.00*
Summary for 'Subject Area' = AGEN431 (2 detail records)							*6.00*	*9.00*	*15.00*
Agricultural Sciences (AGRI)									
Name of Instructor: Lee,Donald J				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRI115	700	100	AGRI115	LEC	Biotch:food Hlth&env	50.00	11.50	34.50	34.50
Summary for 'Instructor' = Lee,Donald J						***(1 detail record)***	*11.50*	*34.50*	*34.50*
Name of Instructor: Sandall,Leah Lynn				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRI115	700	100	AGRI115	LEC	Biotch:food Hlth&env	50.00	11.50	34.50	34.50
Summary for 'Instructor' = Sandall,Leah Lynn						***(1 detail record)***	*11.50*	*34.50*	*34.50*
Name of Instructor: Shaver,Timothy M				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRI897	700	800	AGRI897	IND	Masters: App Sci Proj	20.00	0.60	1.60	1.60
Summary for 'Instructor' = Shaver,Timothy M						***(1 detail record)***	*0.60*	*1.60*	*1.60*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Subject Area' = AGRI897 (3 detail records)							*23.60*	*70.60*	*70.60*
Agronomy (AGRO)									
Name of Instructor: Amundsen,Keenan L				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO896	954	800	AGRO896	LAB	Independent Study	100.00	9.00	0.00	4.80
AGRO899	001	800	AGRO899	IND	Masters Thesis	6.90	1.45	6.00	6.00
AGRO896	955	800	AGRO896	LEC	Independent Study	100.00	9.00	9.00	2.40
AGRO896	956	800	AGRO896	LAB	Independent Study	100.00	9.00	0.00	4.80
AGRO896	953	800	AGRO896	LEC	Independent Study	100.00	9.00	9.00	2.40
AGRO896	952	800	AGRO896	LAB	Independent Study	100.00	9.00	0.00	4.56
AGRO896	951	800	AGRO896	LEC	Independent Study	100.00	9.00	9.00	2.28
Summary for 'Instructor' = Amundsen,Keenan L						***(7 detail records)***	*55.45*	*33.00*	*27.24*
Name of Instructor: Arkebauer,Timothy John				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO807	001	800	AGRO807	LEC	Plant-water Relation	100.00	24.00	72.00	72.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.39	0.22	1.00	1.00
Summary for 'Instructor' = Arkebauer,Timothy John						***(2 detail records)***	*24.22*	*73.00*	*73.00*
Name of Instructor: Baenziger,Peter Stephen				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO894	001	800	AGRO894	IND	Grad Degree Proj Cr	50.00	0.50	3.00	3.00
AGRO896	700	800	AGRO896	IND	Independent Study	25.00	1.00	1.00	1.00
AGRO894	700	800	AGRO894	IND	Grad Degree Proj Cr	50.00	0.50	3.00	3.00
AGRO815B	951	800	AGRO815B	LEC	Germplasm & Genes	100.00	10.00	10.00	8.80
AGRO815B	700	800	AGRO815B	LEC	Germplasm & Genes	100.00	16.00	16.00	4.69
AGRO815A	700	800	AGRO815A	LEC	Self Pollinated Crop	100.00	16.00	16.00	4.05
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	13.14	7.36	33.50	33.50
AGRO815A	951	800	AGRO815A	LEC	Self Pollinated Crop	100.00	10.00	10.00	7.60
Summary for 'Instructor' = Baenziger,Peter Stephen						***(8 detail records)***	*61.36*	*92.50*	*65.65*
Name of Instructor: Blanco Canqui,Humberto				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO269	001	200	AGRO269	LEC	Princ Soil Mgt	100.00	67.00	201.00	201.00
Summary for 'Instructor' = Blanco Canqui,Humberto						***(1 detail record)***	*67.00*	*201.00*	*201.00*
Name of Instructor: Clemente,Thomas E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	6.27	3.51	16.00	16.00
Summary for 'Instructor' = Clemente,Thomas E						***(1 detail record)***	*3.51*	*16.00*	*16.00*
Name of Instructor: Drijber,Rhae A				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	3.92	2.20	10.00	10.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	5.75	1.21	5.00	5.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Drijber,Rhae A					***(2 detail records)***		*3.40*	*15.00*	*15.00*
Name of Instructor: Dunn,Cheryl D				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO442	150	400	AGRO442	LEC	Wildland Plants	100.00	10.00	30.00	20.00
AGRO442	151	400	AGRO442	LAB	Wildland Plants	100.00	10.00	0.00	40.00
AGRO844	150	800	AGRO844	LEC	Vegetation Analysis	50.00	0.50	1.50	1.00
AGRO844	151	800	AGRO844	LAB	Vegetation Analysis	50.00	0.50	0.00	2.00
Summary for 'Instructor' = Dunn,Cheryl D					***(4 detail records)***		*21.00*	*31.50*	*63.00*
Name of Instructor: Dweikat,Ismail M				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO991	002	900	AGRO991	LEC	Smnr Presentatn&eval	100.00	12.00	12.00	12.00
AGRO993	001	900	AGRO993	LEC	Smnr Rsh Prgm Propsl	100.00	8.00	8.00	8.00
AGRO992	001	900	AGRO992	LEC	General Seminar	100.00	9.00	9.00	9.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	6.86	3.84	17.50	17.50
Summary for 'Instructor' = Dweikat,Ismail M					***(4 detail records)***		*32.84*	*46.50*	*46.50*
Name of Instructor: Ferguson,Richard B				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.20	0.11	0.50	0.50
AGRO431	150	400	AGEN431	LEC	Site-spec Crop Mgt	50.00	18.00	54.00	36.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	5.75	1.21	5.00	5.00
AGRO431	152	400	AGEN431	LAB	Site-spec Crop Mgt	50.00	7.00	0.00	21.00
AGRO431	151	400	AGRO431	LAB	Site-spec Crop Mgt	50.00	11.00	0.00	33.00
Summary for 'Instructor' = Ferguson,Richard B					***(5 detail records)***		*37.32*	*59.50*	*95.50*
Name of Instructor: French,Roy C				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	2.35	1.32	6.00	6.00
Summary for 'Instructor' = French,Roy C					***(1 detail record)***		*1.32*	*6.00*	*6.00*
Name of Instructor: Fromm,Michael E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	2.75	1.54	7.00	7.00
Summary for 'Instructor' = Fromm,Michael E					***(1 detail record)***		*1.54*	*7.00*	*7.00*
Name of Instructor: Gaussoin,Roch E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.18	0.66	3.00	3.00
Summary for 'Instructor' = Gaussoin,Roch E					***(1 detail record)***		*0.66*	*3.00*	*3.00*
Name of Instructor: Graef,George L				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	5.75	1.21	5.00	5.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	9.02	5.05	23.00	23.00
AGRO295	001	200	AGRO295	FLD	Internship In Agro	100.00	8.00	12.00	12.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Graef,George L					***(3 detail records)***		*14.26*	*40.00*	*40.00*
Name of Instructor: Graybosch,Robert A				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.20	0.11	0.50	0.50
Summary for 'Instructor' = Graybosch,Robert A					***(1 detail record)***		*0.11*	*0.50*	*0.50*
Name of Instructor: Guretzky,John Andrew				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO240	153	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	22.00	0.00	44.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	9.20	1.93	8.00	8.00
AGRO240	152	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	21.00	0.00	42.00
AGRO240	151	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	28.00	0.00	56.00
AGRO240	150	200	AGRO240	LEC	Forage Crop&rnge Mgt	100.00	71.00	284.00	213.00
Summary for 'Instructor' = Guretzky,John Andrew					***(5 detail records)***		*143.93*	*292.00*	*363.00*
Name of Instructor: Hoegemeyer,Thomas				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
AGRO894	001	800	AGRO894	IND	Grad Degree Proj Cr	50.00	0.50	3.00	3.00
AGRO815D	951	800	AGRO815D	LEC	Cross Polinated Crop	100.00	11.00	11.00	9.68
AGRO896	700	800	AGRO896	IND	Independent Study	50.00	2.00	2.00	2.00
AGRO815D	700	800	AGRO815D	LEC	Cross Polinated Crop	100.00	19.00	19.00	5.57
AGRO201	001	200	AGRO201	LEC	Prep Agron Career	50.00	22.50	22.50	45.00
AGRO894	700	800	AGRO894	IND	Grad Degree Proj Cr	50.00	0.50	3.00	3.00
Summary for 'Instructor' = Hoegemeyer,Thomas					***(6 detail records)***		*55.50*	*60.50*	*68.25*
Name of Instructor: Holding,David R				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	7.25	4.06	18.50	18.50
Summary for 'Instructor' = Holding,David R					***(1 detail record)***		*4.06*	*18.50*	*18.50*
Name of Instructor: Jhala,Amitkumar				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.57	0.88	4.00	4.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	2.30	0.48	2.00	2.00
Summary for 'Instructor' = Jhala,Amitkumar					***(2 detail records)***		*1.36*	*6.00*	*6.00*
Name of Instructor: Kettler,Timothy Alan				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO153	154	100	AGRO153	LAB	Soil Resources	50.00	6.00	0.00	24.00
AGRO153	150	100	AGRO153	LEC	Soil Resources	50.00	42.50	170.00	42.50
AGRO153	151	100	AGRO153	LAB	Soil Resources	50.00	5.50	0.00	22.00
AGRO153	152	100	AGRO153	LAB	Soil Resources	50.00	6.00	0.00	24.00
AGRO153	157	100	AGRO153	LAB	Soil Resources	50.00	4.50	0.00	18.00
AGRO153	153	100	AGRO153	LAB	Soil Resources	50.00	6.50	0.00	26.00
AGRO153	155	100	AGRO153	LAB	Soil Resources	50.00	6.50	0.00	26.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO153	156	100	AGRO153	LAB	Soil Resources	50.00	7.50	0.00	30.00
Summary for 'Instructor' = Kettler,Timothy Alan					***(8 detail records)***		*85.00*	*170.00*	*212.50*
Name of Instructor: Knezevic,Stevan				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.18	0.66	3.00	3.00
Summary for 'Instructor' = Knezevic,Stevan					***(1 detail record)***		*0.66*	*3.00*	*3.00*
Name of Instructor: Kruger,Greg R				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	9.41	5.27	24.00	24.00
Summary for 'Instructor' = Kruger,Greg R					***(1 detail record)***		*5.27*	*24.00*	*24.00*
Name of Instructor: Lagrimini,Mark				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	1.15	0.24	1.00	1.00
AGRO899	700	800	AGRO899	IND	Masters Thesis	100.00	1.00	3.00	3.00
AGRO896	700	800	AGRO896	IND	Independent Study	25.00	1.00	1.00	1.00
Summary for 'Instructor' = Lagrimini,Mark					***(3 detail records)***		*2.24*	*5.00*	*5.00*
Name of Instructor: Lambe,David Paul				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO888	001	800	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	1.00	3.00	3.00
AGRO488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	2.00	6.00	6.00
AGRO888	700	800	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	2.00	6.00	6.00
AGRO488	700	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	6.00	18.00	18.00
AGRO275	001	200	AECN275	LEC	Agribus Entr Finance	100.00	4.00	12.00	12.00
AGRO275	700	200	AECN275	LEC	Agribus Entr Finance	100.00	3.00	9.00	9.00
AGRO388	700	300	AGRO388	IND	Agribusiness Entrshp	100.00	1.00	3.00	3.00
AGRO388	001	300	AGRO388	IND	Agribusiness Entrshp	71.00	1.42	4.26	4.26
Summary for 'Instructor' = Lambe,David Paul					***(8 detail records)***		*20.42*	*61.26*	*61.26*
Name of Instructor: Lee,Donald J				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO315	154	300	AGRO315	LAB	Genetics	100.00	25.00	0.00	50.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	3.45	0.72	3.00	3.00
AGRO131	800	100	AGRO131	LEC	Plant Science	50.00	1.00	3.00	3.00
AGRO131	700	100	AGRO131	LEC	Plant Science	50.00	16.50	49.50	49.50
AGRO131	155	100	AGRO131	RCT	Plant Science	100.00	13.00	0.00	26.00
AGRO131	154	100	AGRO131	RCT	Plant Science	100.00	16.00	0.00	32.00
AGRO315	150	300	AGRO315	LEC	Genetics	100.00	86.00	344.00	258.00
AGRO315	152	300	AGRO315	LAB	Genetics	100.00	30.00	0.00	60.00
AGRO496	001	400	AGRO496	IND	Independent Study	33.00	0.33	0.33	0.33
AGRO315	153	300	AGRO315	LAB	Genetics	100.00	31.00	0.00	62.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO131	151	100	AGRO131	RCT	Plant Science	100.00	24.00	0.00	48.00
AGRO496	002	400	AGRO496	IND	Independent Study	100.00	1.00	3.00	3.00
AGRO131	150	100	AGRO131	LEC	Plant Science	100.00	97.00	291.00	194.00
AGRO131	152	100	AGRO131	RCT	Plant Science	100.00	20.00	0.00	40.00
AGRO315	700	300	AGRO315	LEC	Genetics	50.00	11.50	46.00	46.00
AGRO896	001	800	AGRO496	IND	Independent Study	33.00	0.33	0.66	0.66
AGRO131	153	100	AGRO131	RCT	Plant Science	100.00	24.00	0.00	48.00
AGRO131	001	100	AGRO131	LEC	Plant Science	100.00	25.00	75.00	50.00
Summary for 'Instructor' = Lee,Donald J					***(18 detail records)***		*422.38*	*815.49*	*973.49*
Name of Instructor: Leingang,Deanna H			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
AGRO315	700	300	AGRO315	LEC	Genetics	50.00	11.50	46.00	46.00
Summary for 'Instructor' = Leingang,Deanna H					***(1 detail record)***		*11.50*	*46.00*	*46.00*
Name of Instructor: Lindquist,John Leroy			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO896	003	800	AGRO896	IND	Independent Study	100.00	6.00	6.00	6.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	7.45	4.17	19.00	19.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	10.34	2.17	9.00	9.00
Summary for 'Instructor' = Lindquist,John Leroy					***(3 detail records)***		*12.34*	*34.00*	*34.00*
Name of Instructor: Lorenz,Aaron J			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	2.35	1.32	6.00	6.00
AGRO931	001	900	AGRO931	LEC	Population Genetics	100.00	8.00	24.00	24.00
Summary for 'Instructor' = Lorenz,Aaron J					***(2 detail records)***		*9.32*	*30.00*	*30.00*
Name of Instructor: Mamo,Martha			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO153	154	100	AGRO153	LAB	Soil Resources	50.00	6.00	0.00	24.00
AGRO153	150	100	AGRO153	LEC	Soil Resources	50.00	42.50	170.00	42.50
AGRO153	151	100	AGRO153	LAB	Soil Resources	50.00	5.50	0.00	22.00
AGRO153	156	100	AGRO153	LAB	Soil Resources	50.00	7.50	0.00	30.00
AGRO153	152	100	AGRO153	LAB	Soil Resources	50.00	6.00	0.00	24.00
AGRO153	157	100	AGRO153	LAB	Soil Resources	50.00	4.50	0.00	18.00
AGRO153	153	100	AGRO153	LAB	Soil Resources	50.00	6.50	0.00	26.00
AGRO153	155	100	AGRO153	LAB	Soil Resources	50.00	6.50	0.00	26.00
Summary for 'Instructor' = Mamo,Martha					***(8 detail records)***		*85.00*	*170.00*	*212.50*
Name of Instructor: Mason,Stephen C			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO132	007	100	AGRO132	LAB	Agronmc Plant Sci Lab	100.00	21.00	21.00	42.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	2.30	0.48	2.00	2.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO405	001	400	AGRO405	LEC	Crop Mgt Strategies	100.00	31.00	93.00	93.00
AGRO132	001	100	AGRO132	LAB	Agronmc Plant Sci Lab	100.00	24.00	24.00	48.00
AGRO132	002	100	AGRO132	LAB	Agronmc Plant Sci Lab	100.00	23.00	23.00	46.00
AGRO132	003	100	AGRO132	LAB	Agronmc Plant Sci Lab	100.00	21.00	21.00	42.00
AGRO132	004	100	AGRO132	LAB	Agronmc Plant Sci Lab	100.00	21.00	21.00	42.00
AGRO132	005	100	AGRO132	LAB	Agronmc Plant Sci Lab	100.00	9.00	9.00	18.00
AGRO132	006	100	AGRO132	LAB	Agronmc Plant Sci Lab	100.00	22.00	22.00	44.00
Summary for 'Instructor' = Mason,Stephen C					***(9 detail records)***		*172.48*	*236.00*	*377.00*
Name of Instructor: McCallister,Dennis L				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO201	001	200	AGRO201	LEC	Prep Agron Career	50.00	22.50	22.50	45.00
AGRO455	001	400	AGRO455	LEC	Soil Chem&mineralogy	100.00	2.00	6.00	6.00
AGRO453	001	400	AGRO453	LEC	Urban Soil & Mngt	100.00	1.00	3.00	3.00
AGRO855	001	800	AGRO455	LEC	Soil Chem&mineralogy	100.00	6.00	18.00	18.00
Summary for 'Instructor' = McCallister,Dennis L					***(4 detail records)***		*31.50*	*49.50*	*72.00*
Name of Instructor: Mower,Jeffrey P				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.96	1.10	5.00	5.00
Summary for 'Instructor' = Mower,Jeffrey P					***(1 detail record)***		*1.10*	*5.00*	*5.00*
Name of Instructor: Namuth Covert,Deana M				**Tenure Status: 4 Adjunct**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO412	700	400	AGRO412	LEC	Crop & Weed Genetics	100.00	12.00	12.00	5.44
AGRO812	700	800	AGRO412	LEC	Crop & Weed Genetics	100.00	20.00	20.00	9.07
Summary for 'Instructor' = Namuth Covert,Deana M					***(2 detail records)***		*32.00*	*32.00*	*14.51*
Name of Instructor: Read,Paul E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	2.30	0.48	2.00	2.00
Summary for 'Instructor' = Read,Paul E					***(1 detail record)***		*0.48*	*2.00*	*2.00*
Name of Instructor: Regassa,Teshome				**Tenure Status: 4 Adjunct**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	2.30	0.48	2.00	2.00
Summary for 'Instructor' = Regassa,Teshome					***(1 detail record)***		*0.48*	*2.00*	*2.00*
Name of Instructor: Reicher,Zac J				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	100.00	3.00	9.00	9.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.39	0.22	1.00	1.00
Summary for 'Instructor' = Reicher,Zac J					***(2 detail records)***		*3.22*	*10.00*	*10.00*
Name of Instructor: Sandall,Leah Lynn				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO131	800	100	AGRO131	LEC	Plant Science	50.00	1.00	3.00	3.00
AGRO131	700	100	AGRO131	LEC	Plant Science	50.00	16.50	49.50	49.50

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Sandall,Leah Lynn					***(2 detail records)***		*17.50*	*52.50*	*52.50*
Name of Instructor: Sandell,Lowell Donald				**Tenure Status: 4 Adjunct**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO896	002	800	AGRO896	IND	Independent Study	100.00	1.00	2.00	2.00
Summary for 'Instructor' = Sandell,Lowell Donald					***(1 detail record)***		*1.00*	*2.00*	*2.00*
Name of Instructor: Santra,Dipak K				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.39	0.22	1.00	1.00
Summary for 'Instructor' = Santra,Dipak K					***(1 detail record)***		*0.22*	*1.00*	*1.00*
Name of Instructor: Schacht,Walter H				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO844	150	800	AGRO844	LEC	Vegetation Analysis	50.00	0.50	1.50	1.00
AGRO844	151	800	AGRO844	LAB	Vegetation Analysis	50.00	0.50	0.00	2.00
AGRO445	001	400	AGRO445	LEC	Livestock Mgt Range	50.00	3.00	9.00	9.00
AGRO496	001	400	AGRO496	IND	Independent Study	67.00	0.67	0.67	0.67
AGRO899	001	800	AGRO899	IND	Masters Thesis	6.32	1.33	5.50	5.50
AGRO896	001	800	AGRO496	IND	Independent Study	67.00	0.67	1.34	1.34
Summary for 'Instructor' = Schacht,Walter H					***(6 detail records)***		*6.67*	*18.01*	*19.51*
Name of Instructor: Shapiro,Charles Alan				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.78	0.44	2.00	2.00
Summary for 'Instructor' = Shapiro,Charles Alan					***(1 detail record)***		*0.44*	*2.00*	*2.00*
Name of Instructor: Shaver,Timothy M				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO897	700	800	AGRI897	IND	Masters: App Sci Proj	20.00	0.80	3.80	3.80
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.20	0.11	0.50	0.50
Summary for 'Instructor' = Shaver,Timothy M					***(2 detail records)***		*0.91*	*4.30*	*4.30*
Name of Instructor: Urrea Florez,Carlos A				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	0.57	0.12	0.50	0.50
Summary for 'Instructor' = Urrea Florez,Carlos A					***(1 detail record)***		*0.12*	*0.50*	*0.50*
Name of Instructor: Volesky,Jerry D				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	6.32	1.33	5.50	5.50
Summary for 'Instructor' = Volesky,Jerry D					***(1 detail record)***		*1.33*	*5.50*	*5.50*
Name of Instructor: Walia,Harkamal				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	5.88	3.29	15.00	15.00
Summary for 'Instructor' = Walia,Harkamal					***(1 detail record)***		*3.29*	*15.00*	*15.00*
Name of Instructor: Waters,Brian M				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.96	1.10	5.00	5.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Waters,Brian M					***(1 detail record)***		*1.10*	*5.00*	*5.00*
Name of Instructor: Wilson Jr,Robert G				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.57	0.88	4.00	4.00
Summary for 'Instructor' = Wilson Jr,Robert G					***(1 detail record)***		*0.88*	*4.00*	*4.00*
Name of Instructor: Yang,Haishun				**Tenure Status: 2 Tenure-Track**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO906	150	900	AGRO906	LEC	Crop Growth & Yield	50.00	2.00	6.00	4.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.18	0.66	3.00	3.00
AGRO906	151	900	AGRO906	LAB	Crop Growth & Yield	50.00	2.00	0.00	6.00
Summary for 'Instructor' = Yang,Haishun					***(3 detail records)***		*4.66*	*9.00*	*13.00*
Summary for 'Subject Area' = AGRO906 (149 detail records)							*1,462.36*	*2,815.56*	*3,323.71*
Animal Science									
Name of Instructor: Lee,Donald J				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
ASCI395E	001	300	ASCI395E	IND	Undergrad Tchng Expr	11.76	0.94	2.00	2.00
Summary for 'Instructor' = Lee,Donald J					***(1 detail record)***		*0.94*	*2.00*	*2.00*
Name of Instructor: Lorenz,Aaron J				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
ASCI931	001	900	AGRO931	LEC	Population Genetics	100.00	4.00	12.00	12.00
Summary for 'Instructor' = Lorenz,Aaron J					***(1 detail record)***		*4.00*	*12.00*	*12.00*
Name of Instructor: Schacht,Walter H				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
ASCI451	001	400	AGRO445	LEC	Livestock Mgt Range	50.00	5.50	16.50	16.50
ASCI851	001	800	AGRO445	LEC	Livestock Mgt Range	50.00	0.50	1.50	1.50
Summary for 'Instructor' = Schacht,Walter H					***(2 detail records)***		*6.00*	*18.00*	*18.00*
Summary for 'Subject Area' = AGRO445 (4 detail records)							*10.94*	*32.00*	*32.00*
Architecture									
Name of Instructor: Todd,Kim Anne				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
ARCH567	001	500	ARCH567	LEC	Planting Design	100.00	4.00	16.00	24.00
ARCH598	001	500	ARCH498	IND	Problems In Arch	11.00	0.33	0.77	0.77
ARCH898	001	800	ARCH498	IND	Problems In Arch	11.00	0.44	1.21	1.21
ARCH498	001	400	ARCH498	IND	Problems In Arch	11.00	0.33	0.99	0.99
Summary for 'Instructor' = Todd,Kim Anne					***(4 detail records)***		*5.10*	*18.97*	*26.97*
Summary for 'Subject Area' = ARCH498 (4 detail records)							*5.10*	*18.97*	*26.97*
Biological Chemistry (BIOC)									
Name of Instructor: Basset,Gilles JC				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
BIOC898	001	800	BIOC898	IND	Research In Biochem	13.64	0.68	1.50	1.50
Summary for 'Instructor' = Basset,Gilles JC					***(1 detail record)***		*0.68*	*1.50*	*1.50*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Name of Instructor: Drijber,Rhae A			**Tenure Status: 1 Tenured**			**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
BIOC498	001	400	BIOC498	IND	Undergrad Research	18.18	0.91	2.00	2.00
Summary for 'Instructor' = Drijber,Rhae A					***(1 detail record)***		*0.91*	*2.00*	*2.00*
Summary for 'Subject Area' = BIOC498 (2 detail records)							*1.59*	*3.50*	*3.50*
Biological Sciences (BIOS)									
Name of Instructor: Elthon,Thomas E			**Tenure Status: 1 Tenured**			**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
BIOS879	001	800	BIOS879	LEC	Plant Growth & Devel	100.00	12.00	36.00	36.00
Summary for 'Instructor' = Elthon,Thomas E					***(1 detail record)***		*12.00*	*36.00*	*36.00*
Name of Instructor: Mower,Jeffrey P			**Tenure Status: 2 Tenure-Track**			**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
BIOS498	001	400	BIOS498	IND	Independent Research	10.50	1.68	2.73	2.73
BIOS898	001	800	BIOS498	IND	Independent Research	10.50	0.42	1.26	1.26
BIOS999	001	900	BIOS999	IND	Doctoral Dissertatn	2.96	2.04	9.00	9.00
Summary for 'Instructor' = Mower,Jeffrey P					***(3 detail records)***		*4.14*	*12.99*	*12.99*
Name of Instructor: Wiggs,Joey James			**Tenure Status: 4 Adjunct**			**Rank: 8 Undergrad Tch Asst**		**Full- or Part-Time: 2 Part-time**	
BIOS214	156	200	BIOS214	LAB	Human Anatomy	100.00	22.00	0.00	132.00
Summary for 'Instructor' = Wiggs,Joey James					***(1 detail record)***		*22.00*	*0.00*	*132.00*
Summary for 'Subject Area' = BIOS214 (5 detail records)							*38.14*	*48.99*	*180.99*
Entomology									
Name of Instructor: Baenziger,Peter Stephen			**Tenure Status: 1 Tenured**			**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
ENTO815A	700	800	AGRO815A	LEC	Self Pollinated Crop	100.00	2.00	2.00	0.51
ENTO815A	951	800	AGRO815A	LEC	Self Pollinated Crop	100.00	1.00	1.00	0.76
ENTO815B	700	800	AGRO815B	LEC	Germplasm & Genes	100.00	1.00	1.00	0.29
ENTO815B	951	800	AGRO815B	LEC	Germplasm & Genes	100.00	1.00	1.00	0.88
Summary for 'Instructor' = Baenziger,Peter Stephen					***(4 detail records)***		*5.00*	*5.00*	*2.44*
Name of Instructor: Hoegemeyer,Thomas			**Tenure Status: 4 Adjunct**			**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
ENTO815D	700	800	AGRO815D	LEC	Cross Polinated Crop	100.00	1.00	1.00	0.29
ENTO815D	951	800	AGRO815D	LEC	Cross Polinated Crop	100.00	1.00	1.00	0.88
Summary for 'Instructor' = Hoegemeyer,Thomas					***(2 detail records)***		*2.00*	*2.00*	*1.17*
Summary for 'Subject Area' = AGRO815D (6 detail records)							*7.00*	*7.00*	*3.61*
Entrepreneurship									
Name of Instructor: Lambe,David Paul			**Tenure Status: 4 Adjunct**			**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
ENTR388	700	300	AGRO388	IND	Agribusiness Entrshp	100.00	3.00	9.00	9.00
ENTR488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	3.00	9.00	9.00
ENTR275	001	200	AECN275	LEC	Agribus Entr Finance	100.00	3.00	9.00	9.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
ENTR275	700	200	AECN275	LEC	Agribus Entr Finance	100.00	3.00	9.00	9.00
ENTR388	001	300	AGRO388	IND	Agribusiness Entrshp	71.00	3.55	10.65	10.65
Summary for 'Instructor' = Lambe,David Paul					***(5 detail records)***		*15.55*	*46.65*	*46.65*
Summary for 'Subject Area' = AGRO388 (5 detail records)							*15.55*	*46.65*	*46.65*
Horticulture									
Name of Instructor: Adams,Stacy Ardean			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
HORT133	001	100	HORT133	LAB	Hort Plant Sci Lab	100.00	16.00	16.00	32.00
HORT261	156	200	HORT261	LAB	Floral Design I	100.00	21.00	0.00	42.00
HORT395	001	300	HORT395	FLD	Career Experience	100.00	17.00	19.00	19.00
HORT261	150	200	HORT261	LEC	Floral Design I	100.00	81.00	243.00	162.00
HORT261	152	200	HORT261	LAB	Floral Design I	100.00	19.00	0.00	38.00
HORT261	153	200	HORT261	LAB	Floral Design I	100.00	21.00	0.00	42.00
HORT261	155	200	HORT261	LAB	Floral Design I	100.00	20.00	0.00	40.00
HORT133	002	100	HORT133	LAB	Hort Plant Sci Lab	100.00	10.00	10.00	20.00
Summary for 'Instructor' = Adams,Stacy Ardean					***(8 detail records)***		*205.00*	*288.00*	*395.00*
Name of Instructor: Gaussoin,Roch E			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
HORT999	001	900	HORT999	IND	Doctoral Dissertatn	50.00	1.00	1.00	1.00
Summary for 'Instructor' = Gaussoin,Roch E					***(1 detail record)***		*1.00*	*1.00*	*1.00*
Name of Instructor: Kettler,Timothy Alan			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
HORT153	151	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	156	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	155	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	154	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	153	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	152	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	157	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	150	100	AGRO153	LEC	Soil Resources	50.00	3.50	14.00	3.50
Summary for 'Instructor' = Kettler,Timothy Alan					***(8 detail records)***		*7.00*	*14.00*	*17.50*
Name of Instructor: Lambe,David Paul			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
HORT488	700	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	5.00	15.00	15.00
HORT388	001	300	AGRO388	IND	Agribusiness Entrshp	71.00	3.55	10.65	10.65
HORT388	700	300	AGRO388	IND	Agribusiness Entrshp	100.00	7.00	21.00	21.00
HORT275	700	200	AECN275	LEC	Agribus Entr Finance	100.00	2.00	6.00	6.00
HORT275	001	200	AECN275	LEC	Agribus Entr Finance	100.00	1.00	3.00	3.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
HORT488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	5.00	15.00	15.00
HORT888	992	800	HORT888	LEC	Bus Mgt In Ag Entprs	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Lambe,David Paul					***(7 detail records)***		*24.55*	*73.65*	*73.65*
Name of Instructor: Lee,Donald J				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT131	155	100	AGRO131	RCT	Plant Science	100.00	5.00	0.00	10.00
HORT131	151	100	AGRO131	RCT	Plant Science	100.00	1.00	0.00	2.00
HORT131	700	100	AGRO131	LEC	Plant Science	50.00	3.00	9.00	9.00
HORT131	152	100	AGRO131	RCT	Plant Science	100.00	5.00	0.00	10.00
HORT131	150	100	AGRO131	LEC	Plant Science	100.00	11.00	33.00	22.00
HORT131	001	100	AGRO131	LEC	Plant Science	100.00	6.00	18.00	12.00
Summary for 'Instructor' = Lee,Donald J					***(6 detail records)***		*31.00*	*60.00*	*65.00*
Name of Instructor: Mamo,Martha				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT153	157	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	155	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	154	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	150	100	AGRO153	LEC	Soil Resources	50.00	3.50	14.00	3.50
HORT153	153	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	152	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	151	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	156	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
Summary for 'Instructor' = Mamo,Martha					***(8 detail records)***		*7.00*	*14.00*	*17.50*
Name of Instructor: McCallister,Dennis L				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT453	001	400	AGRO453	LEC	Urban Soil & Mngt	100.00	6.00	18.00	18.00
Summary for 'Instructor' = McCallister,Dennis L					***(1 detail record)***		*6.00*	*18.00*	*18.00*
Name of Instructor: Paparozzi,Ellen T				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT352	001	300	HORT352	LEC	Prod&physio Of Crops	100.00	15.00	30.00	30.00
HORT355	001	300	HORT355	LAB	Perennl Pot Plnt Lab	100.00	11.00	22.00	33.00
HORT849	001	800	HORT849	LEC	Woody Plant Grow&dev	100.00	7.00	21.00	21.00
HORT399	001	300	HORT399	IND	Independent Study	100.00	2.00	5.00	5.00
Summary for 'Instructor' = Paparozzi,Ellen T					***(4 detail records)***		*35.00*	*78.00*	*89.00*
Name of Instructor: Read,Paul E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT354	001	300	HORT354	LAB	Fruit Production Lab	100.00	7.00	14.00	21.00
HORT353	001	300	HORT353	LAB	Veg Crop Prodctn Lab	100.00	8.00	16.00	24.00
HORT471	951	400	HORT471	LAB	Vines Wines & You	100.00	30.00	0.00	12.80

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
HORT999	001	900	HORT999	IND	Doctoral Dissertatn	50.00	1.00	1.00	1.00
HORT471	950	400	HORT471	LEC	Vines Wines & You	100.00	30.00	90.00	76.80
Summary for 'Instructor' = Read,Paul E					***(5 detail records)***		*76.00*	*121.00*	*135.60*
Name of Instructor: Reicher,Zac J				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	100.00	14.00	42.00	42.00
Summary for 'Instructor' = Reicher,Zac J					***(1 detail record)***		*14.00*	*42.00*	*42.00*
Name of Instructor: Sandall,Leah Lynn				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
HORT131	700	100	AGRO131	LEC	Plant Science	50.00	3.00	9.00	9.00
Summary for 'Instructor' = Sandall,Leah Lynn					***(1 detail record)***		*3.00*	*9.00*	*9.00*
Name of Instructor: Simmons,Gregory Scott				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
HORT170	001	100	HORT170	LEC	Resdntl Landscp Dsgn	100.00	4.00	8.00	12.00
Summary for 'Instructor' = Simmons,Gregory Scott					***(1 detail record)***		*4.00*	*8.00*	*12.00*
Name of Instructor: Streich,Anne Marie				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
HORT396	951	300	HORT396	LEC	Current Projcts&tpcs	100.00	4.00	4.00	1.81
Summary for 'Instructor' = Streich,Anne Marie					***(1 detail record)***		*4.00*	*4.00*	*1.81*
Name of Instructor: Sutton,Richard K				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT265	001	200	HORT265	LAB	Vis Com Landscp Dsgn	100.00	9.00	27.00	45.00
HORT212	001	200	HORT212	LEC	Landscape Plants I	100.00	14.00	42.00	42.00
HORT212	002	200	HORT212	LEC	Landscape Plants I	100.00	12.00	36.00	36.00
HORT300	151	300	HORT300	LAB	Intro Landscape Cnst	100.00	16.00	0.00	48.00
HORT300	150	300	HORT300	LEC	Intro Landscape Cnst	100.00	16.00	48.00	32.00
Summary for 'Instructor' = Sutton,Richard K					***(5 detail records)***		*67.00*	*153.00*	*203.00*
Name of Instructor: Todd,Kim Anne				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
HORT228	150	200	HORT228	LEC	Intro Landscape Mngt	100.00	10.00	30.00	20.00
HORT467	001	400	ARCH567	LEC	Planting Design	100.00	9.00	36.00	54.00
HORT228	151	200	HORT228	LAB	Intro Landscape Mngt	100.00	10.00	0.00	30.00
HORT326	151	300	HORT326	LAB	Landscape Solutions	100.00	1.00	0.00	4.00
HORT326	150	300	HORT326	LEC	Landscape Solutions	100.00	1.00	3.00	1.00
HORT214	001	200	HORT214	LEC	Herbaceous Plants	100.00	39.00	117.00	117.00
Summary for 'Instructor' = Todd,Kim Anne					***(6 detail records)***		*70.00*	*186.00*	*226.00*
Summary for 'Subject Area' = HORT214 (63 detail records)							*554.55*	*1,069.65*	*1,306.06*
Horticulture - Omaha									
Name of Instructor: Gustafson,William A				**Tenure Status: 4 Adjunct**		**Rank: 1 Professor**		**Full- or Part-Time: 2 Part-time**	
HORT1310	002	100	HORT1310	LAB	Horticultural Sciences Lab	100.00	15.00	15.00	37.50

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
HORT1300	001	100	HORT1300	LEC	Intro Horticultural Sciences	100.00	187.00	561.00	561.00
HORT1310	001	100	HORT1310	LAB	Horticultural Sciences Lab	100.00	23.00	23.00	57.50
HORT1310	004	100	HORT1310	LAB	Horticultural Sciences Lab	100.00	24.00	24.00	60.00
HORT1310	005	100	HORT1310	LAB	Horticultural Sciences Lab	100.00	16.00	16.00	40.00
HORT1310	003	100	HORT1310	LAB	Horticultural Sciences Lab	100.00	24.00	24.00	60.00
Summary for 'Instructor' = Gustafson,William A					***(6 detail records)***		*289.00*	*663.00*	*816.00*
Name of Instructor: Lambe,David Paul			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
HORT4880	850	400	HORT4880	LEC	Bus Mgmt For Hort Enterprises	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Lambe,David Paul					***(1 detail record)***		*1.00*	*3.00*	*3.00*
Name of Instructor: Rodie,Steven N			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
HORT2000	001	200	HORT2000	LEC	Landscape & Env Apprec	100.00	40.00	120.00	80.00
HORT2000	002	200	HORT2000	RCT	Landscape & Env Apprec	100.00	40.00	0.00	40.00
HORT2120	001	200	HORT2120	LEC	Landscape Plants I	100.00	13.00	39.00	78.00
Summary for 'Instructor' = Rodie,Steven N					***(3 detail records)***		*93.00*	*159.00*	*198.00*
Summary for 'Subject Area' = HORT2120 (10 detail records)							*383.00*	*825.00*	*1,017.00*
Landscape Architecture									
Name of Instructor: McCallister,Dennis L			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
LARC453	001	400	AGRO453	LEC	Urban Soil & Mngt	100.00	6.00	18.00	18.00
Summary for 'Instructor' = McCallister,Dennis L					***(1 detail record)***		*6.00*	*18.00*	*18.00*
Name of Instructor: Sutton,Richard K			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
LARC212	002	200	HORT212	LEC	Landscape Plants I	100.00	11.00	33.00	33.00
LARC487	001	400	LARC487	LEC	Intro Landscape Ecol	100.00	5.00	15.00	15.00
Summary for 'Instructor' = Sutton,Richard K					***(2 detail records)***		*16.00*	*48.00*	*48.00*
Summary for 'Subject Area' = LARC487 (3 detail records)							*22.00*	*66.00*	*66.00*
Life Sciences									
Name of Instructor: Bartholomai,Bradley Matthew			**Tenure Status: 4 Adjunct**		**Rank: 8 Undergrad Tch Asst**		**Full- or Part-Time: 2 Part-time**		
LIFE120L	129	100	LIFE120L	LAB	Fund Biology Lab I	100.00	23.00	23.00	69.00
Summary for 'Instructor' = Bartholomai,Bradley Matthew					***(1 detail record)***		*23.00*	*23.00*	*69.00*
Name of Instructor: Pedersen,Matthew Adam			**Tenure Status: 3 Grad**		**Rank: 7 Grad Rch Asst**		**Full- or Part-Time: 3 Tch Asst**		
LIFE120L	118	100	LIFE120L	LAB	Fund Biology Lab I	100.00	24.00	24.00	72.00
LIFE120L	131	100	LIFE120L	LAB	Fund Biology Lab I	100.00	24.00	24.00	72.00
Summary for 'Instructor' = Pedersen,Matthew Adam					***(2 detail records)***		*48.00*	*48.00*	*144.00*
Summary for 'Subject Area' = LIFE120L (3 detail records)							*71.00*	*71.00*	*213.00*
Mechanized Systems Management									

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Name of Instructor: Ferguson,Richard B			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
MSYM431	151	400	AGRO431	LAB	Site-spec Crop Mgt	50.00	4.50	0.00	13.50
MSYM431	152	400	AGEN431	LAB	Site-spec Crop Mgt	50.00	1.00	0.00	3.00
MSYM431	150	400	AGEN431	LEC	Site-spec Crop Mgt	50.00	5.50	16.50	11.00
Summary for 'Instructor' = Ferguson,Richard B					***(3 detail records)***		*11.00*	*16.50*	*27.50*
Summary for 'Subject Area' = AGEN431 (3 detail records)							*11.00*	*16.50*	*27.50*
Natural Resources									
Name of Instructor: Arkebauer,Timothy John			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
NRES807	001	800	AGRO807	LEC	Plant-water Relation	100.00	3.00	9.00	9.00
Summary for 'Instructor' = Arkebauer,Timothy John					***(1 detail record)***		*3.00*	*9.00*	*9.00*
Name of Instructor: Dunn,Cheryl D			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
NRES844	151	800	AGRO844	LAB	Vegetation Analysis	50.00	0.50	0.00	2.00
NRES844	150	800	AGRO844	LEC	Vegetation Analysis	50.00	0.50	1.50	1.00
NRES444	151	400	AGRO844	LAB	Vegetation Analysis	50.00	0.50	0.00	2.00
NRES444	150	400	AGRO844	LEC	Vegetation Analysis	50.00	0.50	1.50	1.00
NRES442	151	400	AGRO442	LAB	Wildland Plants	100.00	2.00	0.00	8.00
NRES442	150	400	AGRO442	LEC	Wildland Plants	100.00	2.00	6.00	4.00
Summary for 'Instructor' = Dunn,Cheryl D					***(6 detail records)***		*6.00*	*9.00*	*18.00*
Name of Instructor: Schacht,Walter H			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
NRES444	150	400	AGRO844	LEC	Vegetation Analysis	50.00	0.50	1.50	1.00
NRES844	150	800	AGRO844	LEC	Vegetation Analysis	50.00	0.50	1.50	1.00
NRES844	151	800	AGRO844	LAB	Vegetation Analysis	50.00	0.50	0.00	2.00
NRES444	151	400	AGRO844	LAB	Vegetation Analysis	50.00	0.50	0.00	2.00
Summary for 'Instructor' = Schacht,Walter H					***(4 detail records)***		*2.00*	*3.00*	*6.00*
Name of Instructor: Shaver,Timothy M			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
NRES897	700	800	AGRI897	IND	Masters: App Sci Proj	20.00	0.40	0.60	0.60
Summary for 'Instructor' = Shaver,Timothy M					***(1 detail record)***		*0.40*	*0.60*	*0.60*
Name of Instructor: Sutton,Richard K			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
NRES212	001	200	HORT212	LEC	Landscape Plants I	100.00	1.00	3.00	3.00
NRES212	002	200	HORT212	LEC	Landscape Plants I	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Sutton,Richard K					***(2 detail records)***		*2.00*	*6.00*	*6.00*
Name of Instructor: Yang,Haishun			**Tenure Status: 2 Tenure-Track**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
NRES906	150	900	AGRO906	LEC	Crop Growth & Yield	50.00	1.00	3.00	2.00
NRES906	151	900	AGRO906	LAB	Crop Growth & Yield	50.00	1.00	0.00	3.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Yang,Haishun					***(2 detail records)***		*2.00*	*3.00*	*5.00*
Name of Instructor: Young,Steve L			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
NRES899	049	800	NRES899	IND	Masters Thesis	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Young,Steve L					***(1 detail record)***		*1.00*	*3.00*	*3.00*
Summary for 'Subject Area' = NRES899 (17 detail records)							*16.40*	*33.60*	*47.60*
Nutrition & Health Sciences									
Name of Instructor: Read,Paul E			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
NUTR471	950	400	HORT471	LEC	Vines Wines & You	100.00	20.00	60.00	51.20
NUTR471	951	400	HORT471	LAB	Vines Wines & You	100.00	20.00	0.00	8.53
Summary for 'Instructor' = Read,Paul E					***(2 detail records)***		*40.00*	*60.00*	*59.73*
Summary for 'Subject Area' = HORT471 (2 detail records)							*40.00*	*60.00*	*59.73*
Prof Golf Management Program									
Name of Instructor: Reicher,Zac J			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
PGAM227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	100.00	12.00	36.00	36.00
Summary for 'Instructor' = Reicher,Zac J					***(1 detail record)***		*12.00*	*36.00*	*36.00*
Name of Instructor: Todd,Kim Anne			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
PGAM228	150	200	HORT228	LEC	Intro Landscape Mngt	100.00	1.00	3.00	2.00
PGAM228	151	200	HORT228	LAB	Intro Landscape Mngt	100.00	1.00	0.00	3.00
Summary for 'Instructor' = Todd,Kim Anne					***(2 detail records)***		*2.00*	*3.00*	*5.00*
Summary for 'Subject Area' = HORT228 (3 detail records)							*14.00*	*39.00*	*41.00*
Range Science									
Name of Instructor: Dunn,Cheryl D			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
RNGE242	001	200	RNGE242	LEC	N Amer Wild Plants	100.00	2.00	3.00	3.00
RNGE444	151	400	AGRO844	LAB	Vegetation Analysis	50.00	1.00	0.00	4.00
RNGE444	150	400	AGRO844	LEC	Vegetation Analysis	50.00	1.00	3.00	2.00
RNGE442	150	400	AGRO442	LEC	Wildland Plants	100.00	4.00	12.00	8.00
RNGE442	151	400	AGRO442	LAB	Wildland Plants	100.00	4.00	0.00	16.00
Summary for 'Instructor' = Dunn,Cheryl D					***(5 detail records)***		*12.00*	*18.00*	*33.00*
Name of Instructor: Guretzky,John Andrew			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
RNGE240	153	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	7.00	0.00	14.00
RNGE240	152	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	2.00	0.00	4.00
RNGE240	151	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	2.00	0.00	4.00
RNGE240	150	200	AGRO240	LEC	Forage Crop&rnge Mgt	100.00	11.00	44.00	33.00
Summary for 'Instructor' = Guretzky,John Andrew					***(4 detail records)***		*22.00*	*44.00*	*55.00*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Name of Instructor: Schacht,Walter H			**Tenure Status: 1 Tenured**			**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
RNGE444	150	400	AGRO844	LEC	Vegetation Analysis	50.00	1.00	3.00	2.00
RNGE444	151	400	AGRO844	LAB	Vegetation Analysis	50.00	1.00	0.00	4.00
Summary for 'Instructor' = Schacht,Walter H						***(2 detail records)***	*2.00*	*3.00*	*6.00*
Summary for 'Subject Area' = AGRO844 (11 detail records)							*36.00*	*65.00*	*94.00*
Soil Science									
Name of Instructor: Blanco Canqui,Humberto			**Tenure Status: 2 Tenure-Track**			**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
SOIL269	001	200	AGRO269	LEC	Princ Soil Mgt	100.00	5.00	15.00	15.00
Summary for 'Instructor' = Blanco Canqui,Humberto						***(1 detail record)***	*5.00*	*15.00*	*15.00*
Name of Instructor: Kettler,Timothy Alan			**Tenure Status: 4 Adjunct**			**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
SOIL153	152	100	AGRO153	LAB	Soil Resources	50.00	5.00	0.00	20.00
SOIL153	157	100	AGRO153	LAB	Soil Resources	50.00	6.00	0.00	24.00
SOIL153	156	100	AGRO153	LAB	Soil Resources	50.00	2.50	0.00	10.00
SOIL153	155	100	AGRO153	LAB	Soil Resources	50.00	4.00	0.00	16.00
SOIL153	154	100	AGRO153	LAB	Soil Resources	50.00	5.50	0.00	22.00
SOIL153	151	100	AGRO153	LAB	Soil Resources	50.00	5.00	0.00	20.00
SOIL153	150	100	AGRO153	LEC	Soil Resources	50.00	32.00	128.00	32.00
SOIL153	153	100	AGRO153	LAB	Soil Resources	50.00	4.00	0.00	16.00
Summary for 'Instructor' = Kettler,Timothy Alan						***(8 detail records)***	*64.00*	*128.00*	*160.00*
Name of Instructor: Mamo,Martha			**Tenure Status: 1 Tenured**			**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
SOIL153	152	100	AGRO153	LAB	Soil Resources	50.00	5.00	0.00	20.00
SOIL153	154	100	AGRO153	LAB	Soil Resources	50.00	5.50	0.00	22.00
SOIL153	155	100	AGRO153	LAB	Soil Resources	50.00	4.00	0.00	16.00
SOIL153	151	100	AGRO153	LAB	Soil Resources	50.00	5.00	0.00	20.00
SOIL153	156	100	AGRO153	LAB	Soil Resources	50.00	2.50	0.00	10.00
SOIL153	157	100	AGRO153	LAB	Soil Resources	50.00	6.00	0.00	24.00
SOIL153	150	100	AGRO153	LEC	Soil Resources	50.00	32.00	128.00	32.00
SOIL153	153	100	AGRO153	LAB	Soil Resources	50.00	4.00	0.00	16.00
Summary for 'Instructor' = Mamo,Martha						***(8 detail records)***	*64.00*	*128.00*	*160.00*
Name of Instructor: McCallister,Dennis L			**Tenure Status: 1 Tenured**			**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
SOIL453	001	400	AGRO453	LEC	Urban Soil & Mngt	100.00	1.00	3.00	3.00
SOIL455	001	400	AGRO455	LEC	Soil Chem&mineralogy	100.00	2.00	6.00	6.00
Summary for 'Instructor' = McCallister,Dennis L						***(2 detail records)***	*3.00*	*9.00*	*9.00*
Summary for 'Subject Area' = AGRO455 (19 detail records)							*136.00*	*280.00*	*344.00*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Turfgrass & Landscape Mngt									
Name of Instructor: Amundsen,Keenan L			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
TLMT327	150	300	TLMT327	LEC	Turfgrass Sci & Mngt	100.00	13.00	39.00	26.00
TLMT327	151	300	TLMT327	LAB	Turfgrass Sci & Mngt	100.00	13.00	0.00	26.00
Summary for 'Instructor' = Amundsen,Keenan L					***(2 detail records)***		*26.00*	*39.00*	*52.00*
Name of Instructor: Reicher,Zac J			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
TLMT427	951	400	TLMT427	LAB	Turfgrass Sys Mngt	100.00	13.00	0.00	50.96
TLMT227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	100.00	8.00	24.00	24.00
TLMT229	001	200	TLMT229	LAB	Int:turfgrass Mgt Lab	100.00	4.00	4.00	14.00
TLMT427	950	400	TLMT427	LEC	Turfgrass Sys Mngt	100.00	13.00	39.00	14.56
Summary for 'Instructor' = Reicher,Zac J					***(4 detail records)***		*38.00*	*67.00*	*103.52*
Name of Instructor: Streich,Anne Marie			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
TLMT395	951	300	TLMT395	FLD	Career Experience	100.00	21.00	23.00	12.60
TLMT127	951	100	TLMT127	LAB	Turfgrass&landscp Mgt	100.00	11.00	11.00	9.97
Summary for 'Instructor' = Streich,Anne Marie					***(2 detail records)***		*32.00*	*34.00*	*22.57*
Name of Instructor: Todd,Kim Anne			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
TLMT228	150	200	HORT228	LEC	Intro Landscape Mngt	100.00	8.00	24.00	16.00
TLMT228	151	200	HORT228	LAB	Intro Landscape Mngt	100.00	8.00	0.00	24.00
TLMT326	150	300	HORT326	LEC	Landscape Solutions	100.00	4.00	12.00	4.00
TLMT326	151	300	HORT326	LAB	Landscape Solutions	100.00	4.00	0.00	16.00
Summary for 'Instructor' = Todd,Kim Anne					***(4 detail records)***		*24.00*	*36.00*	*60.00*
Summary for 'Subject Area' = HORT326 (12 detail records)							*120.00*	*176.00*	*238.09*
Grand Total of Courses taught by Faculty in Agronomy and Horticulture							***3,026.78***	***5,911.67***	***7,314.67***

Note: Sorted by instructor and then subject area. This listing includes courses such as labs which may not have credit hours attached to them.

Student Credit Hours/Contact Hours by Department, Subject and Faculty Teaching the Course
Fall 2014 (20151)
College: College of Agri Sci and Natl Resources *Department: Agronomy and Horticulture*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Agribusiness									
Name of Instructor: Lambe,David Paul			**Tenure Status: 4 Adjunct**			**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
ABUS388	001	300	ABUS388	LEC	Agribusiness Entrshp	100.00	2.00	6.00	5.00
ABUS388	700	300	ABUS388	LEC	Agribusiness Entrshp	100.00	4.00	12.00	12.00
ABUS488	001	400	ABUS488	LEC	Bus Mgt In Ag Entprs	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Lambe,David Paul						***(3 detail records)***	*7.00*	*21.00*	*20.00*
Summary for 'Subject Area' = ABUS488 (3 detail records)							*7.00*	*21.00*	*20.00*
Agribusiness Entrepreneurship									
Name of Instructor: Lambe,David Paul			**Tenure Status: 4 Adjunct**			**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
EAEP388	001	300	ABUS388	LEC	Agribusiness Entrshp	100.00	4.00	12.00	10.00
EAEP488	001	400	ABUS488	LEC	Bus Mgt In Ag Entprs	100.00	3.00	9.00	9.00
EAEP275	700	200	AECN275	LEC	Agribus Entr Finance	100.00	4.00	12.00	12.00
EAEP488	700	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	3.00	9.00	9.00
EAEP275	001	200	AECN275	LEC	Agribus Entr Finance	100.00	4.00	12.00	12.00
EAEP388	700	300	ABUS388	LEC	Agribusiness Entrshp	100.00	6.00	18.00	18.00
Summary for 'Instructor' = Lambe,David Paul						***(6 detail records)***	*24.00*	*72.00*	*70.00*
Summary for 'Subject Area' = ABUS388 (6 detail records)							*24.00*	*72.00*	*70.00*
Agricultural Economics (AECN)									
Name of Instructor: Lambe,David Paul			**Tenure Status: 4 Adjunct**			**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AECN275	001	200	AECN275	LEC	Agribus Entr Finance	100.00	17.00	51.00	51.00
AECN275	700	200	AECN275	LEC	Agribus Entr Finance	100.00	22.00	66.00	66.00
Summary for 'Instructor' = Lambe,David Paul						***(2 detail records)***	*39.00*	*117.00*	*117.00*
Summary for 'Subject Area' = AECN275 (2 detail records)							*39.00*	*117.00*	*117.00*
Agricultural Engineering									
Name of Instructor: Ferguson,Richard B			**Tenure Status: 1 Tenured**			**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGEN431	150	400	AGEN431	LEC	Site-spec Crop Mgt	35.00	3.15	9.45	6.30
AGEN431	151	400	AGEN431	LAB	Site-spec Crop Mgt	35.00	0.35	0.00	1.05
AGEN431	152	400	AGEN431	LAB	Site-spec Crop Mgt	35.00	2.80	0.00	8.40
Summary for 'Instructor' = Ferguson,Richard B						***(3 detail records)***	*6.30*	*9.45*	*15.75*
Summary for 'Subject Area' = AGEN431 (3 detail records)							*6.30*	*9.45*	*15.75*
Agricultural Sciences (AGRI)									

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Name of Instructor: Amundsen,Keenan L			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
AGRI271	001	200	AGRI271	LEC	Intro Comput Appl Ag	100.00	21.00	63.00	42.00
Summary for 'Instructor' = Amundsen,Keenan L					***(1 detail record)***		*21.00*	*63.00*	*42.00*
Name of Instructor: Lee,Donald J			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRI115	700	100	AGRI115	LEC	Biotch:food Hlth&env	50.00	16.00	48.00	48.00
Summary for 'Instructor' = Lee,Donald J					***(1 detail record)***		*16.00*	*48.00*	*48.00*
Name of Instructor: Read,Paul E			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRI310	002	300	AGRI310	LEC	Study Tour Intnl Ag	100.00	1.00	1.00	1.00
Summary for 'Instructor' = Read,Paul E					***(1 detail record)***		*1.00*	*1.00*	*1.00*
Name of Instructor: Sandall,Leah Lynn			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
AGRI115	800	100	AGRI115	LEC	Biotch:food Hlth&env	100.00	1.00	3.00	3.00
AGRI115	700	100	AGRI115	LEC	Biotch:food Hlth&env	50.00	16.00	48.00	48.00
Summary for 'Instructor' = Sandall,Leah Lynn					***(2 detail records)***		*17.00*	*51.00*	*51.00*
Summary for 'Subject Area' = AGRI115 (5 detail records)							*55.00*	*163.00*	*142.00*
Agronomy (AGRO)									
Name of Instructor: Adams,Stacy Ardean			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
AGRO132	006	100	AGRO132	LAB	Agronmc Plant Sci Lab	40.00	10.00	10.00	20.00
Summary for 'Instructor' = Adams,Stacy Ardean					***(1 detail record)***		*10.00*	*10.00*	*20.00*
Name of Instructor: Arkebauer,Timothy John			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO496	001	400	AGRO496	IND	Independent Study	19.00	0.38	0.76	0.76
AGRO896	001	800	AGRO496	IND	Independent Study	19.00	1.14	2.28	2.28
AGRO807	001	800	AGRO807	LEC	Plant-water Relation	100.00	24.00	72.00	72.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.43	0.21	1.00	1.00
Summary for 'Instructor' = Arkebauer,Timothy John					***(4 detail records)***		*25.73*	*76.04*	*76.04*
Name of Instructor: Baenziger,Peter Stephen			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO815A	951	800	AGRO815A	LEC	Self Pollinated Crop	100.00	10.00	10.00	7.60
AGRO815B	700	800	AGRO815B	LEC	Germplasm & Genes	100.00	13.00	13.00	3.81
AGRO815B	951	800	AGRO815B	LEC	Germplasm & Genes	100.00	9.00	9.00	7.92
AGRO815A	700	800	AGRO815A	LEC	Self Pollinated Crop	100.00	13.00	13.00	3.29
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	9.35	4.58	21.50	21.50
AGRO496	700	400	AGRO496	IND	Independent Study	50.00	0.50	1.50	1.50
Summary for 'Instructor' = Baenziger,Peter Stephen					***(6 detail records)***		*50.08*	*68.00*	*45.63*
Name of Instructor: Blanco,Humberto			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO269	001	200	AGRO269	LEC	Princ Soil Mgt	100.00	71.00	213.00	213.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO896	006	800	AGRO496	IND	Independent Study	100.00	5.00	15.00	20.00
AGRO496	006	400	AGRO496	IND	Independent Study	100.00	3.00	9.00	12.00
AGRO498	001	400	AGRO498	IND	Senior Project	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Blanco,Humberto					***(4 detail records)***		*80.00*	*240.00*	*248.00*
Name of Instructor: Clemente,Thomas E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO811	700	800	AGRO411	LEC	Crop Genetic Engr	50.00	11.50	23.00	10.43
AGRO411	700	400	AGRO411	LEC	Crop Genetic Engr	50.00	6.50	13.00	5.89
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	9.57	4.69	22.00	22.00
Summary for 'Instructor' = Clemente,Thomas E					***(3 detail records)***		*22.69*	*58.00*	*38.32*
Name of Instructor: Drijber,Rhae A				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.30	0.64	3.00	3.00
Summary for 'Instructor' = Drijber,Rhae A					***(1 detail record)***		*0.64*	*3.00*	*3.00*
Name of Instructor: Dunn,Cheryl D				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO842	150	800	AGRO442	LEC	Wildland Plants	100.00	1.00	3.00	2.00
AGRO442	151	400	AGRO442	LAB	Wildland Plants	100.00	9.00	0.00	36.00
AGRO442	150	400	AGRO442	LEC	Wildland Plants	100.00	9.00	27.00	18.00
AGRO842	151	800	AGRO442	LAB	Wildland Plants	100.00	1.00	0.00	4.00
Summary for 'Instructor' = Dunn,Cheryl D					***(4 detail records)***		*20.00*	*30.00*	*60.00*
Name of Instructor: Dweikat,Ismail M				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO991	002	900	AGRO991	LEC	Smnr Presentatn&eval	100.00	2.00	2.00	2.00
AGRO919	001	900	AGRO919	LEC	Plant Genetics	100.00	18.00	54.00	36.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	6.09	2.98	14.00	14.00
AGRO992	001	900	AGRO992	LEC	General Seminar	100.00	6.00	6.00	6.00
Summary for 'Instructor' = Dweikat,Ismail M					***(4 detail records)***		*28.98*	*76.00*	*58.00*
Name of Instructor: Ferguson,Richard B				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO431	150	400	AGEN431	LEC	Site-spec Crop Mgt	35.00	10.85	32.55	21.70
AGRO431	151	400	AGEN431	LAB	Site-spec Crop Mgt	35.00	7.70	0.00	23.10
AGRO431	152	400	AGEN431	LAB	Site-spec Crop Mgt	35.00	3.15	0.00	9.45
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.22	0.11	0.50	0.50
Summary for 'Instructor' = Ferguson,Richard B					***(4 detail records)***		*21.81*	*33.05*	*54.75*
Name of Instructor: Fromm,Michael E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	2.04	0.55	2.00	2.00
Summary for 'Instructor' = Fromm,Michael E					***(1 detail record)***		*0.55*	*2.00*	*2.00*
Name of Instructor: Graef,George L				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO295	001	200	AGRO295	FLD	Internship In Agro	100.00	7.00	12.00	12.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	11.22	3.03	11.00	11.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	3.04	1.49	7.00	7.00
Summary for 'Instructor' = Graef,George L					***(3 detail records)***		*11.52*	*30.00*	*30.00*
Name of Instructor: Grassini,Patricio				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	5.10	1.38	5.00	5.00
Summary for 'Instructor' = Grassini,Patricio					***(1 detail record)***		*1.38*	*5.00*	*5.00*
Name of Instructor: Graybosch,Robert A				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.43	0.21	1.00	1.00
Summary for 'Instructor' = Graybosch,Robert A					***(1 detail record)***		*0.21*	*1.00*	*1.00*
Name of Instructor: Guretzky,John Andrew				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO240	150	200	AGRO240	LEC	Forage Crop&rnge Mgt	100.00	93.00	372.00	279.00
AGRO240	154	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	21.00	0.00	42.00
AGRO240	153	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	23.00	0.00	46.00
AGRO240	152	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	25.00	0.00	50.00
AGRO240	151	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	24.00	0.00	48.00
Summary for 'Instructor' = Guretzky,John Andrew					***(5 detail records)***		*186.00*	*372.00*	*465.00*
Name of Instructor: Hoegemeyer,Thomas				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
AGRO201	001	200	AGRO201	LEC	Prep Agron Career	50.00	20.00	20.00	40.00
AGRO815D	951	800	AGRO815D	LEC	Cross Polinated Crop	100.00	9.00	9.00	7.92
AGRO815D	700	800	AGRO815D	LEC	Cross Polinated Crop	100.00	14.00	14.00	4.11
AGRO496	700	400	AGRO496	IND	Independent Study	50.00	0.50	1.50	1.50
Summary for 'Instructor' = Hoegemeyer,Thomas					***(4 detail records)***		*43.50*	*44.50*	*53.53*
Name of Instructor: Holding,David R				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.87	0.43	2.00	2.00
Summary for 'Instructor' = Holding,David R					***(1 detail record)***		*0.43*	*2.00*	*2.00*
Name of Instructor: Jhala,Amitkumar				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	6.09	2.98	14.00	14.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	6.12	1.65	6.00	6.00
Summary for 'Instructor' = Jhala,Amitkumar					***(2 detail records)***		*4.64*	*20.00*	*20.00*
Name of Instructor: Kettler,Timothy Alan				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO153	153	100	AGRO153	LAB	Soil Resources	50.00	6.00	0.00	24.00
AGRO153	150	100	AGRO153	LEC	Soil Resources	50.00	42.00	168.00	42.00
AGRO153	151	100	AGRO153	LAB	Soil Resources	50.00	6.00	0.00	24.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO153	157	100	AGRO153	LAB	Soil Resources	50.00	3.50	0.00	14.00
AGRO153	152	100	AGRO153	LAB	Soil Resources	50.00	5.50	0.00	22.00
AGRO153	154	100	AGRO153	LAB	Soil Resources	50.00	8.00	0.00	32.00
AGRO153	155	100	AGRO153	LAB	Soil Resources	50.00	8.00	0.00	32.00
AGRO153	156	100	AGRO153	LAB	Soil Resources	50.00	5.00	0.00	20.00
Summary for 'Instructor' = Kettler,Timothy Alan					***(8 detail records)***		*84.00*	*168.00*	*210.00*
Name of Instructor: Kruger,Greg R			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO899	001	800	AGRO899	IND	Masters Thesis	7.65	2.07	7.50	7.50
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	13.04	6.39	30.00	30.00
Summary for 'Instructor' = Kruger,Greg R					***(2 detail records)***		*8.46*	*37.50*	*37.50*
Name of Instructor: Lambe,David Paul			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
AGRO275	001	200	AECN275	LEC	Agribus Entr Finance	100.00	2.00	6.00	6.00
AGRO388	700	300	ABUS388	LEC	Agribusiness Entrshp	100.00	2.00	6.00	6.00
AGRO388	001	300	ABUS388	LEC	Agribusiness Entrshp	100.00	4.00	12.00	10.00
AGRO888	700	800	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	2.00	6.00	6.00
AGRO888	001	800	ABUS488	LEC	Bus Mgt In Ag Entprs	100.00	1.00	3.00	3.00
AGRO488	700	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	2.00	6.00	6.00
AGRO488	001	400	ABUS488	LEC	Bus Mgt In Ag Entprs	100.00	2.00	6.00	6.00
Summary for 'Instructor' = Lambe,David Paul					***(7 detail records)***		*15.00*	*45.00*	*43.00*
Name of Instructor: Lee,Donald J			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO131	155	100	AGRO131	RCT	Plant Science	100.00	20.00	0.00	40.00
AGRO315	153	300	AGRO315	LAB	Genetics	100.00	31.00	0.00	62.00
AGRO131	700	100	AGRO131	LEC	Plant Science	50.00	22.50	67.50	67.50
AGRO131	153	100	AGRO131	RCT	Plant Science	100.00	26.00	0.00	52.00
AGRO131	152	100	AGRO131	RCT	Plant Science	100.00	26.00	0.00	52.00
AGRO131	151	100	AGRO131	RCT	Plant Science	100.00	19.00	0.00	38.00
AGRO131	150	100	AGRO131	LEC	Plant Science	100.00	91.00	273.00	182.00
AGRO131	800	100	AGRO131	LEC	Plant Science	50.00	10.00	30.00	30.00
AGRO496	002	400	AGRO496	IND	Independent Study	100.00	9.00	27.00	27.00
AGRO315	700	300	AGRO315	LEC	Genetics	100.00	33.00	132.00	132.00
AGRO315	152	300	AGRO315	LAB	Genetics	100.00	30.00	0.00	60.00
AGRO896	791	800	AGRO896	IND	Independent Study	100.00	3.00	3.00	1.92
AGRO315	150	300	AGRO315	LEC	Genetics	100.00	86.00	344.00	258.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	7.14	1.93	7.00	7.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO315	154	300	AGRO315	LAB	Genetics	100.00	25.00	0.00	50.00
Summary for 'Instructor' = Lee,Donald J					***(15 detail records)***		*433.43*	*883.50*	*1,059.42*
Name of Instructor: Lindquist,John Leroy			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	7.83	3.83	18.00	18.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	8.16	2.20	8.00	8.00
Summary for 'Instructor' = Lindquist,John Leroy					***(2 detail records)***		*6.04*	*26.00*	*26.00*
Name of Instructor: Lorenz,Aaron J			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	5.65	2.77	13.00	13.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	2.04	0.55	2.00	2.00
AGRO931	001	900	AGRO931	LEC	Population Genetics	50.00	7.00	21.00	21.00
Summary for 'Instructor' = Lorenz,Aaron J					***(3 detail records)***		*10.32*	*36.00*	*36.00*
Name of Instructor: Mackenzie,Sally			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	3.48	1.70	8.00	8.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	2.04	0.55	2.00	2.00
Summary for 'Instructor' = Mackenzie,Sally					***(2 detail records)***		*2.26*	*10.00*	*10.00*
Name of Instructor: Mamo,Martha			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO896	001	800	AGRO496	IND	Independent Study	12.00	0.72	1.44	1.44
AGRO496	001	400	AGRO496	IND	Independent Study	12.00	0.24	0.48	0.48
AGRO153	152	100	AGRO153	LAB	Soil Resources	50.00	5.50	0.00	22.00
AGRO153	154	100	AGRO153	LAB	Soil Resources	50.00	8.00	0.00	32.00
AGRO153	150	100	AGRO153	LEC	Soil Resources	50.00	42.00	168.00	42.00
AGRO153	153	100	AGRO153	LAB	Soil Resources	50.00	6.00	0.00	24.00
AGRO153	151	100	AGRO153	LAB	Soil Resources	50.00	6.00	0.00	24.00
AGRO153	156	100	AGRO153	LAB	Soil Resources	50.00	5.00	0.00	20.00
AGRO153	157	100	AGRO153	LAB	Soil Resources	50.00	3.50	0.00	14.00
AGRO153	155	100	AGRO153	LAB	Soil Resources	50.00	8.00	0.00	32.00
Summary for 'Instructor' = Mamo,Martha					***(10 detail records)***		*84.96*	*169.92*	*211.92*
Name of Instructor: Mason,Stephen C			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO132	001	100	AGRO132	LAB	Agronmc Plant Sci Lab	50.00	12.00	12.00	24.00
AGRO132	004	100	AGRO132	LAB	Agronmc Plant Sci Lab	50.00	12.00	12.00	24.00
AGRO132	005	100	AGRO132	LAB	Agronmc Plant Sci Lab	50.00	11.00	11.00	22.00
AGRO132	006	100	AGRO132	LAB	Agronmc Plant Sci Lab	20.00	5.00	5.00	10.00
AGRO405	001	400	AGRO405	LEC	Crop Mgt Strategies	100.00	37.00	111.00	111.00
AGRO132	002	100	AGRO132	LAB	Agronmc Plant Sci Lab	50.00	11.50	11.50	23.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO132	003	100	AGRO132	LAB	Agronmc Plant Sci Lab	20.00	5.20	5.20	10.40
AGRO132	007	100	AGRO132	LAB	Agronmc Plant Sci Lab	50.00	11.50	11.50	23.00
Summary for 'Instructor' = Mason,Stephen C					***(8 detail records)***		*105.20*	*179.20*	*247.40*
Name of Instructor: McCallister,Dennis L			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO453	001	400	AGRO453	LEC	Urban Soil & Mngt	100.00	2.00	6.00	6.00
AGRO201	001	200	AGRO201	LEC	Prep Agron Career	50.00	20.00	20.00	40.00
AGRO455	001	400	AGRO455	LEC	Soil Chem&mineralogy	100.00	7.00	21.00	21.00
AGRO496	001	400	AGRO496	IND	Independent Study	19.00	0.38	0.76	0.76
AGRO896	001	800	AGRO496	IND	Independent Study	19.00	1.14	2.28	2.28
AGRO855	001	800	AGRO455	LEC	Soil Chem&mineralogy	100.00	5.00	15.00	15.00
Summary for 'Instructor' = McCallister,Dennis L					***(6 detail records)***		*35.52*	*65.04*	*85.04*
Name of Instructor: Mower,Jeffrey P			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	2.17	1.07	5.00	5.00
Summary for 'Instructor' = Mower,Jeffrey P					***(1 detail record)***		*1.07*	*5.00*	*5.00*
Name of Instructor: Paparozzi,Ellen T			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO92	951	0	AGRO92	LEC	Plant Bio Port&assmt	100.00	6.00	0.00	1.44
Summary for 'Instructor' = Paparozzi,Ellen T					***(1 detail record)***		*6.00*	*0.00*	*1.44*
Name of Instructor: Read,Paul E			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	2.17	1.07	5.00	5.00
Summary for 'Instructor' = Read,Paul E					***(1 detail record)***		*1.07*	*5.00*	*5.00*
Name of Instructor: Regassa,Teshome			**Tenure Status: 4 Adjunct**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO899	001	800	AGRO899	IND	Masters Thesis	3.06	0.83	3.00	3.00
Summary for 'Instructor' = Regassa,Teshome					***(1 detail record)***		*0.83*	*3.00*	*3.00*
Name of Instructor: Reicher,Zac J			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	100.00	8.00	24.00	24.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	4.08	1.10	4.00	4.00
Summary for 'Instructor' = Reicher,Zac J					***(2 detail records)***		*9.10*	*28.00*	*28.00*
Name of Instructor: Sandall,Leah Lynn			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
AGRO411	700	400	AGRO411	LEC	Crop Genetic Engr	50.00	6.50	13.00	5.89
AGRO131	800	100	AGRO131	LEC	Plant Science	50.00	10.00	30.00	30.00
AGRO131	700	100	AGRO131	LEC	Plant Science	50.00	22.50	67.50	67.50
AGRO811	700	800	AGRO411	LEC	Crop Genetic Engr	50.00	11.50	23.00	10.43
AGRO132	003	100	AGRO132	LAB	Agronmc Plant Sci Lab	40.00	10.40	10.40	20.80

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Sandall,Leah Lynn					***(5 detail records)***		*60.90*	*143.90*	*134.62*
Name of Instructor: Santra,Dipak K			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.43	0.21	1.00	1.00
Summary for 'Instructor' = Santra,Dipak K					***(1 detail record)***		*0.21*	*1.00*	*1.00*
Name of Instructor: Schacht,Walter H			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO899	001	800	AGRO899	IND	Masters Thesis	1.02	0.28	1.00	1.00
AGRO445	001	400	AGRO445	LEC	Livestock Mgt Range	50.00	0.50	1.50	1.50
AGRO896	001	800	AGRO496	IND	Independent Study	31.00	1.86	3.72	3.72
AGRO496	001	400	AGRO496	IND	Independent Study	31.00	0.62	1.24	1.24
AGRO845	001	800	AGRO445	LEC	Livestock Mgt Range	50.00	1.00	3.00	3.00
Summary for 'Instructor' = Schacht,Walter H					***(5 detail records)***		*4.26*	*10.46*	*10.46*
Name of Instructor: Shapiro,Charles Alan			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.96	0.96	4.50	4.50
AGRO894	700	800	AGRO894	IND	Grad Degree Proj Cr	100.00	1.00	1.00	1.00
Summary for 'Instructor' = Shapiro,Charles Alan					***(2 detail records)***		*1.96*	*5.50*	*5.50*
Name of Instructor: Shaver,Timothy M			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	2.17	1.07	5.00	5.00
Summary for 'Instructor' = Shaver,Timothy M					***(1 detail record)***		*1.07*	*5.00*	*5.00*
Name of Instructor: Streich,Anne Marie			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
AGRO131	001	100	AGRO131	LEC	Plant Science	100.00	22.00	66.00	44.00
AGRO131	002	100	AGRO131	LEC	Plant Science	100.00	25.00	75.00	50.00
Summary for 'Instructor' = Streich,Anne Marie					***(2 detail records)***		*47.00*	*141.00*	*94.00*
Name of Instructor: Troupe,Grace Christian			**Tenure Status: 3 Grad**		**Rank: 7 Grad Rch Asst**		**Full- or Part-Time: 3 Tch Asst**		
AGRO132	001	100	AGRO132	LAB	Agronmc Plant Sci Lab	50.00	12.00	12.00	24.00
AGRO132	006	100	AGRO132	LAB	Agronmc Plant Sci Lab	40.00	10.00	10.00	20.00
AGRO132	007	100	AGRO132	LAB	Agronmc Plant Sci Lab	50.00	11.50	11.50	23.00
AGRO132	005	100	AGRO132	LAB	Agronmc Plant Sci Lab	50.00	11.00	11.00	22.00
AGRO132	004	100	AGRO132	LAB	Agronmc Plant Sci Lab	50.00	12.00	12.00	24.00
AGRO132	003	100	AGRO132	LAB	Agronmc Plant Sci Lab	40.00	10.40	10.40	20.80
AGRO132	002	100	AGRO132	LAB	Agronmc Plant Sci Lab	50.00	11.50	11.50	23.00
Summary for 'Instructor' = Troupe,Grace Christian					***(7 detail records)***		*78.40*	*78.40*	*156.80*
Name of Instructor: Twidwell Jr,Dirac L			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO444	150	400	AGRO444	LEC	Ecosys Monitor&assmt	100.00	1.00	3.00	3.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	2.04	0.55	2.00	2.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO844	150	800	AGRO444	LEC	Vegetation Analysis	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Twidwell Jr,Dirac L					***(3 detail records)***		*2.55*	*8.00*	*8.00*
Name of Instructor: Urrea Florez,Carlos A			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO899	001	800	AGRO899	IND	Masters Thesis	2.04	0.55	2.00	2.00
Summary for 'Instructor' = Urrea Florez,Carlos A					***(1 detail record)***		*0.55*	*2.00*	*2.00*
Name of Instructor: Volesky,Jerry D			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO899	001	800	AGRO899	IND	Masters Thesis	1.02	0.28	1.00	1.00
Summary for 'Instructor' = Volesky,Jerry D					***(1 detail record)***		*0.28*	*1.00*	*1.00*
Name of Instructor: Walia,Harkamal			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	4.35	2.13	10.00	10.00
Summary for 'Instructor' = Walia,Harkamal					***(1 detail record)***		*2.13*	*10.00*	*10.00*
Name of Instructor: Waters,Brian M			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.22	0.11	0.50	0.50
AGRO899	001	800	AGRO899	IND	Masters Thesis	5.10	1.38	5.00	5.00
Summary for 'Instructor' = Waters,Brian M					***(2 detail records)***		*1.48*	*5.50*	*5.50*
Name of Instructor: Wortmann,Charles Stephen			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.30	0.64	3.00	3.00
Summary for 'Instructor' = Wortmann,Charles Stephen					***(1 detail record)***		*0.64*	*3.00*	*3.00*
Name of Instructor: Yang,Haishun			**Tenure Status: 2 Tenure-Track**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	2.61	1.28	6.00	6.00
Summary for 'Instructor' = Yang,Haishun					***(1 detail record)***		*1.28*	*6.00*	*6.00*
Summary for 'Subject Area' = AGRO999 (151 detail records)							*1,514.10*	*3,152.51*	*3,633.86*
Animal Science									
Name of Instructor: Lorenz,Aaron J			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
ASCI931	001	900	AGRO931	LEC	Population Genetics	50.00	2.50	7.50	7.50
Summary for 'Instructor' = Lorenz,Aaron J					***(1 detail record)***		*2.50*	*7.50*	*7.50*
Name of Instructor: Schacht,Walter H			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
ASCI451	001	400	AGRO445	LEC	Livestock Mgt Range	50.00	7.50	22.50	22.50
ASCI851	001	800	AGRO445	LEC	Livestock Mgt Range	50.00	0.50	1.50	1.50
Summary for 'Instructor' = Schacht,Walter H					***(2 detail records)***		*8.00*	*24.00*	*24.00*
Summary for 'Subject Area' = AGRO445 (3 detail records)							*10.50*	*31.50*	*31.50*
Architecture									
Name of Instructor: Todd,Kim Anne			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
ARCH867	001	800	ARCH867	LEC	Planting Design	100.00	1.00	4.00	6.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Todd,Kim Anne					***(1 detail record)***		*1.00*	*4.00*	*6.00*
Summary for 'Subject Area' = ARCH867 (1 detail record)							*1.00*	*4.00*	*6.00*
Biological Chemistry (BIOC)									
Name of Instructor: Basset,Gilles JC			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
BIOC999	001	900	BIOC999	IND	Doctoral Dissertatn	3.30	0.76	3.00	3.00
Summary for 'Instructor' = Basset,Gilles JC					***(1 detail record)***		*0.76*	*3.00*	*3.00*
Summary for 'Subject Area' = BIOC999 (1 detail record)							*0.76*	*3.00*	*3.00*
Biological Sciences (BIOS)									
Name of Instructor: Arkebauer,Timothy John			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
BIOS817	001	800	AGRO807	LEC	Plant-water Relation	100.00	2.00	6.00	6.00
Summary for 'Instructor' = Arkebauer,Timothy John					***(1 detail record)***		*2.00*	*6.00*	*6.00*
Name of Instructor: Elthon,Thomas E			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 2 Part-time**		
BIOS878	150	800	BIOS478	LEC	Plant Anatomy	100.00	11.00	44.00	33.00
BIOS478	150	400	BIOS478	LEC	Plant Anatomy	100.00	4.00	16.00	12.00
Summary for 'Instructor' = Elthon,Thomas E					***(2 detail records)***		*15.00*	*60.00*	*45.00*
Name of Instructor: Mackenzie,Sally			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
BIOS999	001	900	BIOS999	IND	Doctoral Dissertatn	1.37	0.84	4.00	4.00
Summary for 'Instructor' = Mackenzie,Sally					***(1 detail record)***		*0.84*	*4.00*	*4.00*
Name of Instructor: Mower,Jeffrey P			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
BIOS429	150	400	BIOS429	LEC	Phylogenetic Biology	100.00	4.00	16.00	12.00
BIOS829	151	800	BIOS429	RCT	Phylogenetic Biology	100.00	3.00	0.00	3.00
BIOS429	151	400	BIOS429	RCT	Phylogenetic Biology	100.00	4.00	0.00	4.00
BIOS999	001	900	BIOS999	IND	Doctoral Dissertatn	0.34	0.21	1.00	1.00
BIOS829	150	800	BIOS429	LEC	Phylogenetic Biology	100.00	3.00	12.00	9.00
Summary for 'Instructor' = Mower,Jeffrey P					***(5 detail records)***		*14.21*	*29.00*	*29.00*
Name of Instructor: Schachtman,Daniel P			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
BIOS999	001	900	BIOS999	IND	Doctoral Dissertatn	0.34	0.21	1.00	1.00
Summary for 'Instructor' = Schachtman,Daniel P					***(1 detail record)***		*0.21*	*1.00*	*1.00*
Summary for 'Subject Area' = BIOS999 (10 detail records)							*32.26*	*100.00*	*85.00*
Entomology									
Name of Instructor: Baenziger,Peter Stephen			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
ENTO815A	700	800	AGRO815A	LEC	Self Pollinated Crop	100.00	4.00	4.00	1.01
ENTO815A	951	800	AGRO815A	LEC	Self Pollinated Crop	100.00	1.00	1.00	0.76
ENTO815B	700	800	AGRO815B	LEC	Germplasm & Genes	100.00	4.00	4.00	1.17

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
ENTO815B	951	800	AGRO815B	LEC	Germplasm & Genes	100.00	1.00	1.00	0.88
Summary for 'Instructor' = Baenziger,Peter Stephen					***(4 detail records)***		*10.00*	*10.00*	*3.83*
Name of Instructor: Hoegemeyer,Thomas			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**		
ENTO815D	700	800	AGRO815D	LEC	Cross Polinated Crop	100.00	4.00	4.00	1.17
ENTO815D	951	800	AGRO815D	LEC	Cross Polinated Crop	100.00	1.00	1.00	0.88
Summary for 'Instructor' = Hoegemeyer,Thomas					***(2 detail records)***		*5.00*	*5.00*	*2.05*
Summary for 'Subject Area' = AGRO815D (6 detail records)							*15.00*	*15.00*	*5.88*
Entrepreneurship									
Name of Instructor: Lambe,David Paul			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
ENTR275	700	200	AECN275	LEC	Agribus Entr Finance	100.00	4.00	12.00	12.00
ENTR488	700	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	1.00	3.00	3.00
ENTR488	001	400	ABUS488	LEC	Bus Mgt In Ag Entprs	100.00	3.00	9.00	9.00
ENTR388	001	300	ABUS388	LEC	Agribusiness Entrshp	100.00	5.00	15.00	12.50
ENTR275	001	200	AECN275	LEC	Agribus Entr Finance	100.00	4.00	12.00	12.00
ENTR388	700	300	ABUS388	LEC	Agribusiness Entrshp	100.00	2.00	6.00	6.00
Summary for 'Instructor' = Lambe,David Paul					***(6 detail records)***		*19.00*	*57.00*	*54.50*
Summary for 'Subject Area' = ABUS388 (6 detail records)							*19.00*	*57.00*	*54.50*
Horticulture									
Name of Instructor: Adams,Stacy Ardean			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
HORT133	001	100	HORT133	LAB	Hort Plant Sci Lab	100.00	14.00	14.00	28.00
HORT261	153	200	HORT261	LAB	Floral Design I	100.00	25.00	0.00	50.00
HORT261	155	200	HORT261	LAB	Floral Design I	100.00	20.00	0.00	40.00
HORT261	156	200	HORT261	LAB	Floral Design I	100.00	23.00	0.00	46.00
HORT395	001	300	HORT395	FLD	Career Experience	100.00	9.00	12.00	12.00
HORT399	001	300	HORT399	IND	Independent Study	46.15	2.77	6.00	6.00
HORT261	152	200	HORT261	LAB	Floral Design I	100.00	23.00	0.00	46.00
HORT133	002	100	HORT133	LAB	Hort Plant Sci Lab	100.00	15.00	15.00	30.00
HORT261	150	200	HORT261	LEC	Floral Design I	100.00	91.00	273.00	182.00
Summary for 'Instructor' = Adams,Stacy Ardean					***(9 detail records)***		*222.77*	*320.00*	*440.00*
Name of Instructor: Dweikat,Ismail M			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
HORT992	001	900	AGRO992	LEC	General Seminar	100.00	1.00	1.00	1.00
HORT991	002	900	AGRO991	LEC	Smnr Presentatn&eval	100.00	1.00	1.00	1.00
HORT991	001	900	HORT991	LEC	Smnr Presentatn&eval	100.00	1.00	1.00	1.00
Summary for 'Instructor' = Dweikat,Ismail M					***(3 detail records)***		*3.00*	*3.00*	*3.00*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Name of Instructor: Gaussoin,Roch E			**Tenure Status: 1 Tenured**			**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT999	001	900	HORT999	IND	Doctoral Dissertatn	100.00	1.00	1.00	1.00
Summary for 'Instructor' = Gaussoin,Roch E					***(1 detail record)***		*1.00*	*1.00*	*1.00*
Name of Instructor: Kettler,Timothy Alan			**Tenure Status: 4 Adjunct**			**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
HORT153	154	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	157	100	AGRO153	LAB	Soil Resources	50.00	1.50	0.00	6.00
HORT153	156	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	155	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	153	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	152	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	151	100	AGRO153	LAB	Soil Resources	50.00	1.50	0.00	6.00
HORT153	150	100	AGRO153	LEC	Soil Resources	50.00	5.50	22.00	5.50
Summary for 'Instructor' = Kettler,Timothy Alan					***(8 detail records)***		*11.00*	*22.00*	*27.50*
Name of Instructor: Lambe,David Paul			**Tenure Status: 4 Adjunct**			**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
HORT888	001	800	ABUS488	LEC	Bus Mgt In Ag Entprs	100.00	1.00	3.00	3.00
HORT488	700	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	6.00	18.00	18.00
HORT399	001	300	HORT399	IND	Independent Study	7.69	0.46	1.00	1.00
HORT888	700	800	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	1.00	3.00	3.00
HORT275	001	200	AECN275	LEC	Agribus Entr Finance	100.00	3.00	9.00	9.00
HORT488	001	400	ABUS488	LEC	Bus Mgt In Ag Entprs	100.00	9.00	28.00	27.00
HORT388	001	300	ABUS388	LEC	Agribusiness Entrshp	100.00	7.00	21.00	17.50
HORT388	700	300	ABUS388	LEC	Agribusiness Entrshp	100.00	2.00	6.00	6.00
HORT396	001	300	HORT396	IND	Current Projcts&tpcs	62.50	1.25	5.00	5.00
Summary for 'Instructor' = Lambe,David Paul					***(9 detail records)***		*30.71*	*94.00*	*89.50*
Name of Instructor: Lee,Donald J			**Tenure Status: 1 Tenured**			**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT131	155	100	AGRO131	RCT	Plant Science	100.00	4.00	0.00	8.00
HORT131	700	100	AGRO131	LEC	Plant Science	50.00	2.50	7.50	7.50
HORT896	791	800	AGRO896	IND	Independent Study	100.00	1.00	1.00	0.64
HORT131	150	100	AGRO131	LEC	Plant Science	100.00	15.00	45.00	30.00
HORT131	151	100	AGRO131	RCT	Plant Science	100.00	4.00	0.00	8.00
HORT131	153	100	AGRO131	RCT	Plant Science	100.00	4.00	0.00	8.00
HORT131	152	100	AGRO131	RCT	Plant Science	100.00	3.00	0.00	6.00
Summary for 'Instructor' = Lee,Donald J					***(7 detail records)***		*33.50*	*53.50*	*68.14*
Name of Instructor: Mamo,Martha			**Tenure Status: 1 Tenured**			**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
HORT153	155	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	151	100	AGRO153	LAB	Soil Resources	50.00	1.50	0.00	6.00
HORT153	157	100	AGRO153	LAB	Soil Resources	50.00	1.50	0.00	6.00
HORT153	156	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	154	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	150	100	AGRO153	LEC	Soil Resources	50.00	5.50	22.00	5.50
HORT153	153	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	152	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
Summary for 'Instructor' = Mamo,Martha					***(8 detail records)***		*11.00*	*22.00*	*27.50*
Name of Instructor: McCallister,Dennis L				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT453	001	400	AGRO453	LEC	Urban Soil & Mngt	100.00	12.00	36.00	36.00
Summary for 'Instructor' = McCallister,Dennis L					***(1 detail record)***		*12.00*	*36.00*	*36.00*
Name of Instructor: Paparozzi,Ellen T				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT92	951	0	AGRO92	LEC	Plant Bio Port&assmt	100.00	2.00	0.00	0.48
HORT352	001	300	HORT352	LEC	Prod&physio Of Crops	100.00	28.00	56.00	56.00
HORT355	001	300	HORT355	LAB	Perennl Pot Plnt Lab	100.00	15.00	30.00	45.00
Summary for 'Instructor' = Paparozzi,Ellen T					***(3 detail records)***		*45.00*	*86.00*	*101.48*
Name of Instructor: Read,Paul E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT471	951	400	HORT471	LAB	Vines Wines & You	100.00	13.00	0.00	5.55
HORT471	950	400	HORT471	LEC	Vines Wines & You	100.00	13.00	39.00	33.28
HORT353	001	300	HORT353	LAB	Veg Crop Prodctn Lab	100.00	18.00	36.00	54.00
HORT354	001	300	HORT354	LAB	Fruit Production Lab	100.00	17.00	34.00	51.00
Summary for 'Instructor' = Read,Paul E					***(4 detail records)***		*61.00*	*109.00*	*143.83*
Name of Instructor: Reicher,Zac J				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	100.00	9.00	27.00	27.00
Summary for 'Instructor' = Reicher,Zac J					***(1 detail record)***		*9.00*	*27.00*	*27.00*
Name of Instructor: Rodie,Steven N				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
HORT396	001	300	HORT396	IND	Current Projcts&tpcs	37.50	0.75	3.00	3.00
HORT200	001	200	GEOG200	LEC	Landscape&envir Appr	100.00	26.00	78.00	78.00
Summary for 'Instructor' = Rodie,Steven N					***(2 detail records)***		*26.75*	*81.00*	*81.00*
Name of Instructor: Sandall,Leah Lynn				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
HORT131	700	100	AGRO131	LEC	Plant Science	50.00	2.50	7.50	7.50
Summary for 'Instructor' = Sandall,Leah Lynn					***(1 detail record)***		*2.50*	*7.50*	*7.50*
Name of Instructor: Simmons,Gregory Scott				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
HORT170	001	100	HORT170	LEC	Resdntl Landscp Dsgn	100.00	5.00	10.00	15.00
HORT212	001	200	HORT212	LEC	Landscape Plants I	5.00	0.50	1.50	1.50
HORT212	002	200	HORT212	LEC	Landscape Plants I	5.00	0.90	2.70	2.70
Summary for 'Instructor' = Simmons,Gregory Scott					***(3 detail records)***		*6.40*	*14.20*	*19.20*
Name of Instructor: Streich,Anne Marie			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
HORT131	001	100	AGRO131	LEC	Plant Science	100.00	4.00	12.00	8.00
HORT131	002	100	AGRO131	LEC	Plant Science	100.00	1.00	3.00	2.00
HORT127	951	100	HORT127	LEC	Turfgrass&landscp Mgt	100.00	1.00	1.00	0.83
HORT396	951	300	HORT396	IND	Current Projcts&tpcs	100.00	6.00	0.00	1.76
Summary for 'Instructor' = Streich,Anne Marie					***(4 detail records)***		*12.00*	*16.00*	*12.59*
Name of Instructor: Sutton,Richard K			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
HORT212	001	200	HORT212	LEC	Landscape Plants I	95.00	9.50	28.50	28.50
HORT212	002	200	HORT212	LEC	Landscape Plants I	95.00	17.10	51.30	51.30
HORT265	001	200	HORT265	LAB	Vis Com Landscp Dsgn	100.00	6.00	18.00	30.00
Summary for 'Instructor' = Sutton,Richard K					***(3 detail records)***		*32.60*	*97.80*	*109.80*
Name of Instructor: Todd,Kim Anne			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
HORT399	001	300	HORT399	IND	Independent Study	46.15	2.77	6.00	6.00
HORT326	150	300	HORT326	LEC	Landscape Solutions	100.00	5.00	15.00	5.00
HORT326	151	300	HORT326	LAB	Landscape Solutions	100.00	5.00	0.00	20.00
HORT467	001	400	ARCH867	LEC	Planting Design	100.00	15.00	61.00	90.00
HORT228	151	200	HORT228	LAB	Intro Landscape Mngt	100.00	13.00	0.00	39.00
HORT214	001	200	HORT214	LEC	Herbaceous Plants	100.00	22.00	66.00	66.00
HORT228	150	200	HORT228	LEC	Intro Landscape Mngt	100.00	13.00	39.00	26.00
HORT894	001	800	HORT894	IND	Grad Degree Proj Cr	100.00	2.00	6.00	6.00
Summary for 'Instructor' = Todd,Kim Anne					***(8 detail records)***		*77.77*	*193.00*	*258.00*
Name of Instructor: Twigg,Paul			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**		
HORT842B	992	800	HORT842B	LEC	Plant Physiology	100.00	5.00	15.00	14.00
Summary for 'Instructor' = Twigg,Paul					***(1 detail record)***		*5.00*	*15.00*	*14.00*
Summary for 'Subject Area' = HORT842B (76 detail records)							*603.00*	*1,198.00*	*1,467.03*

Horticulture - Omaha

Name of Instructor: Gustafson,William A			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**		
HORT1300	001	100	HORT1300	LEC	Intro Horticultural Sciences	100.00	115.00	345.00	345.00
HORT1310	002	100	HORT1310	LAB	Horticultural Sciences Lab	100.00	15.00	15.00	37.50
HORT1310	003	100	HORT1310	LAB	Horticultural Sciences Lab	100.00	16.00	16.00	40.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
HORT1310	004	100	HORT1310	LAB	Horticultural Sciences Lab	100.00	24.00	24.00	60.00
HORT1310	001	100	HORT1310	LAB	Horticultural Sciences Lab	100.00	23.00	23.00	57.50
Summary for 'Instructor' = Gustafson,William A					***(5 detail records)***		*193.00*	*423.00*	*540.00*
Name of Instructor: Rodie,Steven N			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**		
HORT2120	001	200	HORT2120	LEC	Landscape Plants I	100.00	27.00	81.00	162.00
HORT3990	001	300	HORT3990	LEC	Independent Study	100.00	1.00	3.00	3.00
HORT2000	001	200	HORT2000	LEC	Landscape & Env Apprec	100.00	31.00	93.00	62.00
HORT2000	002	200	HORT2000	RCT	Landscape & Env Apprec	100.00	31.00	0.00	31.00
Summary for 'Instructor' = Rodie,Steven N					***(4 detail records)***		*90.00*	*177.00*	*258.00*
Summary for 'Subject Area' = HORT2000 (9 detail records)							*283.00*	*600.00*	*798.00*
Hospitality Rest & Tourism Mng									
Name of Instructor: Read,Paul E			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
HRTM471	950	400	HORT471	LEC	Vines Wines & You	100.00	14.00	42.00	35.84
HRTM471	951	400	HORT471	LAB	Vines Wines & You	100.00	14.00	0.00	5.97
Summary for 'Instructor' = Read,Paul E					***(2 detail records)***		*28.00*	*42.00*	*41.81*
Summary for 'Subject Area' = HORT471 (2 detail records)							*28.00*	*42.00*	*41.81*
Landscape Architecture									
Name of Instructor: Simmons,Gregory Scott			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**		
LARC212	001	200	HORT212	LEC	Landscape Plants I	5.00	0.60	1.80	1.80
Summary for 'Instructor' = Simmons,Gregory Scott					***(1 detail record)***		*0.60*	*1.80*	*1.80*
Name of Instructor: Sutton,Richard K			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
LARC212	001	200	HORT212	LEC	Landscape Plants I	95.00	11.40	34.20	34.20
LARC487	001	400	LARC487	LEC	Intro Landscape Ecol	100.00	10.00	30.00	30.00
Summary for 'Instructor' = Sutton,Richard K					***(2 detail records)***		*21.40*	*64.20*	*64.20*
Summary for 'Subject Area' = LARC487 (3 detail records)							*22.00*	*66.00*	*66.00*
Life Sciences									
Name of Instructor: Bledsoe,Samuel Willis			**Tenure Status: 3 Grad**		**Rank: 7 Grad Rch Asst**		**Full- or Part-Time: 3 Tch Asst**		
LIFE120L	137	100	LIFE120L	LAB	Fund Biology Lab I	100.00	23.00	23.00	69.00
LIFE120L	138	100	LIFE120L	LAB	Fund Biology Lab I	100.00	24.00	24.00	72.00
Summary for 'Instructor' = Bledsoe,Samuel Willis					***(2 detail records)***		*47.00*	*47.00*	*141.00*
Name of Instructor: Morton,Kyla Jae			**Tenure Status: 3 Grad**		**Rank: 7 Grad Rch Asst**		**Full- or Part-Time: 3 Tch Asst**		
LIFE120L	139	100	LIFE120L	LAB	Fund Biology Lab I	100.00	24.00	24.00	72.00
LIFE120L	134	100	LIFE120L	LAB	Fund Biology Lab I	100.00	24.00	24.00	72.00
Summary for 'Instructor' = Morton,Kyla Jae					***(2 detail records)***		*48.00*	*48.00*	*144.00*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Name of Instructor: Pedersen,Matthew Adam			**Tenure Status: 3 Grad**			**Rank: 7 Grad Rch Asst**		**Full- or Part-Time: 3 Tch Asst**	
LIFE120L	117	100	LIFE120L	LAB	Fund Biology Lab I	100.00	24.00	24.00	72.00
LIFE120L	130	100	LIFE120L	LAB	Fund Biology Lab I	100.00	20.00	20.00	60.00
Summary for 'Instructor' = Pedersen,Matthew Adam						***(2 detail records)***	*44.00*	*44.00*	*132.00*
Summary for 'Subject Area' = LIFE120L (6 detail records)							*139.00*	*139.00*	*417.00*
Mechanized Systems Management									
Name of Instructor: Ferguson,Richard B			**Tenure Status: 1 Tenured**			**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
MSYM431	150	400	AGEN431	LEC	Site-spec Crop Mgt	35.00	3.50	10.50	7.00
MSYM431	151	400	AGEN431	LAB	Site-spec Crop Mgt	35.00	1.75	0.00	5.25
MSYM431	152	400	AGEN431	LAB	Site-spec Crop Mgt	35.00	1.75	0.00	5.25
Summary for 'Instructor' = Ferguson,Richard B						***(3 detail records)***	*7.00*	*10.50*	*17.50*
Summary for 'Subject Area' = AGEN431 (3 detail records)							*7.00*	*10.50*	*17.50*
Natural Resources									
Name of Instructor: Arkebauer,Timothy John			**Tenure Status: 1 Tenured**			**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
NRES807	001	800	AGRO807	LEC	Plant-water Relation	100.00	4.00	12.00	12.00
Summary for 'Instructor' = Arkebauer,Timothy John						***(1 detail record)***	*4.00*	*12.00*	*12.00*
Name of Instructor: Dunn,Cheryl D			**Tenure Status: 4 Adjunct**			**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
NRES442	150	400	AGRO442	LEC	Wildland Plants	100.00	5.00	15.00	10.00
NRES842	151	800	AGRO442	LAB	Wildland Plants	100.00	1.00	0.00	4.00
NRES842	150	800	AGRO442	LEC	Wildland Plants	100.00	1.00	3.00	2.00
NRES442	151	400	AGRO442	LAB	Wildland Plants	100.00	5.00	0.00	20.00
Summary for 'Instructor' = Dunn,Cheryl D						***(4 detail records)***	*12.00*	*18.00*	*36.00*
Name of Instructor: McCallister,Dennis L			**Tenure Status: 1 Tenured**			**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
NRES855	001	800	AGRO455	LEC	Soil Chem&mineralogy	100.00	2.00	6.00	6.00
Summary for 'Instructor' = McCallister,Dennis L						***(1 detail record)***	*2.00*	*6.00*	*6.00*
Name of Instructor: Simmons,Gregory Scott			**Tenure Status: 4 Adjunct**			**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
NRES212	002	200	HORT212	LEC	Landscape Plants I	5.00	0.10	0.30	0.30
NRES212	001	200	HORT212	LEC	Landscape Plants I	5.00	0.10	0.30	0.30
Summary for 'Instructor' = Simmons,Gregory Scott						***(2 detail records)***	*0.20*	*0.60*	*0.60*
Name of Instructor: Sutton,Richard K			**Tenure Status: 1 Tenured**			**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
NRES212	002	200	HORT212	LEC	Landscape Plants I	95.00	1.90	5.70	5.70
NRES212	001	200	HORT212	LEC	Landscape Plants I	95.00	1.90	5.70	5.70
Summary for 'Instructor' = Sutton,Richard K						***(2 detail records)***	*3.80*	*11.40*	*11.40*
Name of Instructor: Todd,Kim Anne			**Tenure Status: 1 Tenured**			**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
NRES214	001	200	HORT214	LEC	Herbaceous Plants	100.00	5.00	15.00	15.00
Summary for 'Instructor' = Todd,Kim Anne					***(1 detail record)***		*5.00*	*15.00*	*15.00*
Name of Instructor: Twidwell Jr,Dirac L			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
NRES444	150	400	AGRO444	LEC	Vegetation Analysis	100.00	5.00	15.00	15.00
NRES844	150	800	AGRO444	LEC	Vegetation Analysis	100.00	3.00	9.00	9.00
Summary for 'Instructor' = Twidwell Jr,Dirac L					***(2 detail records)***		*8.00*	*24.00*	*24.00*
Summary for 'Subject Area' = AGRO444 (13 detail records)							*35.00*	*87.00*	*105.00*
Nutrition & Health Sciences									
Name of Instructor: Read,Paul E			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
NUTR471	950	400	HORT471	LEC	Vines Wines & You	100.00	18.00	54.00	46.08
NUTR471	951	400	HORT471	LAB	Vines Wines & You	100.00	18.00	0.00	7.68
Summary for 'Instructor' = Read,Paul E					***(2 detail records)***		*36.00*	*54.00*	*53.76*
Summary for 'Subject Area' = HORT471 (2 detail records)							*36.00*	*54.00*	*53.76*
Prof Golf Management Program									
Name of Instructor: Reicher,Zac J			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
PGAM227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	100.00	16.00	48.00	48.00
PGAM229	001	200	PGAM229	LAB	Turfgrass Mgt Lab	50.00	8.50	8.50	17.00
Summary for 'Instructor' = Reicher,Zac J					***(2 detail records)***		*24.50*	*56.50*	*65.00*
Summary for 'Subject Area' = PGAM229 (2 detail records)							*24.50*	*56.50*	*65.00*
Range Science									
Name of Instructor: Dunn,Cheryl D			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
RNGE442	150	400	AGRO442	LEC	Wildland Plants	100.00	2.00	6.00	4.00
RNGE442	151	400	AGRO442	LAB	Wildland Plants	100.00	2.00	0.00	8.00
Summary for 'Instructor' = Dunn,Cheryl D					***(2 detail records)***		*4.00*	*6.00*	*12.00*
Name of Instructor: Guretzky,John Andrew			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
RNGE240	153	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	2.00	0.00	4.00
RNGE240	150	200	AGRO240	LEC	Forage Crop&rnge Mgt	100.00	7.00	28.00	21.00
RNGE240	152	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	1.00	0.00	2.00
RNGE240	151	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	3.00	0.00	6.00
RNGE240	154	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	1.00	0.00	2.00
Summary for 'Instructor' = Guretzky,John Andrew					***(5 detail records)***		*14.00*	*28.00*	*35.00*
Name of Instructor: Twidwell Jr,Dirac L			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
RNGE444	150	400	AGRO444	LEC	Vegetation Analysis	100.00	3.00	9.00	9.00
Summary for 'Instructor' = Twidwell Jr,Dirac L					***(1 detail record)***		*3.00*	*9.00*	*9.00*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Subject Area' = AGRO444 (8 detail records)							*21.00*	*43.00*	*56.00*
Soil Science									
Name of Instructor: Blanco,Humberto				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
SOIL269	001	200	AGRO269	LEC	Princ Soil Mgt	100.00	7.00	21.00	21.00
Summary for 'Instructor' = Blanco,Humberto					***(1 detail record)***		*7.00*	*21.00*	*21.00*
Name of Instructor: Kettler,Timothy Alan				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
SOIL153	154	100	AGRO153	LAB	Soil Resources	50.00	2.50	0.00	10.00
SOIL153	153	100	AGRO153	LAB	Soil Resources	50.00	3.50	0.00	14.00
SOIL153	156	100	AGRO153	LAB	Soil Resources	50.00	4.50	0.00	18.00
SOIL153	151	100	AGRO153	LAB	Soil Resources	50.00	2.00	0.00	8.00
SOIL153	152	100	AGRO153	LAB	Soil Resources	50.00	4.00	0.00	16.00
SOIL153	150	100	AGRO153	LEC	Soil Resources	50.00	24.00	96.00	24.00
SOIL153	157	100	AGRO153	LAB	Soil Resources	50.00	5.50	0.00	22.00
SOIL153	155	100	AGRO153	LAB	Soil Resources	50.00	2.00	0.00	8.00
Summary for 'Instructor' = Kettler,Timothy Alan					***(8 detail records)***		*48.00*	*96.00*	*120.00*
Name of Instructor: Mamo,Martha				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
SOIL153	156	100	AGRO153	LAB	Soil Resources	50.00	4.50	0.00	18.00
SOIL153	157	100	AGRO153	LAB	Soil Resources	50.00	5.50	0.00	22.00
SOIL153	154	100	AGRO153	LAB	Soil Resources	50.00	2.50	0.00	10.00
SOIL153	152	100	AGRO153	LAB	Soil Resources	50.00	4.00	0.00	16.00
SOIL153	151	100	AGRO153	LAB	Soil Resources	50.00	2.00	0.00	8.00
SOIL153	150	100	AGRO153	LEC	Soil Resources	50.00	24.00	96.00	24.00
SOIL153	155	100	AGRO153	LAB	Soil Resources	50.00	2.00	0.00	8.00
SOIL153	153	100	AGRO153	LAB	Soil Resources	50.00	3.50	0.00	14.00
Summary for 'Instructor' = Mamo,Martha					***(8 detail records)***		*48.00*	*96.00*	*120.00*
Name of Instructor: McCallister,Dennis L				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
SOIL453	001	400	AGRO453	LEC	Urban Soil & Mngt	100.00	6.00	18.00	18.00
SOIL455	001	400	AGRO455	LEC	Soil Chem&mineralogy	100.00	5.00	15.00	15.00
Summary for 'Instructor' = McCallister,Dennis L					***(2 detail records)***		*11.00*	*33.00*	*33.00*
Summary for 'Subject Area' = AGRO455 (19 detail records)							*114.00*	*246.00*	*294.00*
Turfgrass & Landscape Mngt									
Name of Instructor: Reicher,Zac J				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
TLMT227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	100.00	21.00	63.00	63.00
TLMT427	951	400	TLMT427	LAB	Turfgrass Sys Mngt	100.00	11.00	0.00	43.12

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
TLMT427	950	400	TLMT427	LEC	Turfgrass Sys Mngt	100.00	11.00	33.00	12.32
TLMT229	001	200	TLMT229	LAB	Int:turfgrass Mgt Lab	100.00	9.00	9.00	31.50
Summary for 'Instructor' = Reicher,Zac J					***(4 detail records)***		*52.00*	*105.00*	*149.94*
Name of Instructor: Streich,Anne Marie				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
TLMT395	951	300	TLMT395	FLD	Career Experience	100.00	20.00	20.00	12.40
TLMT127	951	100	HORT127	LEC	Turfgrass&landscp Mgt	100.00	9.00	9.00	7.44
Summary for 'Instructor' = Streich,Anne Marie					***(2 detail records)***		*29.00*	*29.00*	*19.84*
Name of Instructor: Todd,Kim Anne				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
TLMT326	150	300	HORT326	LEC	Landscape Solutions	100.00	7.00	21.00	7.00
TLMT326	151	300	HORT326	LAB	Landscape Solutions	100.00	7.00	0.00	28.00
TLMT228	151	200	HORT228	LAB	Intro Landscape Mngt	100.00	14.00	0.00	42.00
TLMT228	150	200	HORT228	LEC	Intro Landscape Mngt	100.00	14.00	42.00	28.00
Summary for 'Instructor' = Todd,Kim Anne					***(4 detail records)***		*42.00*	*63.00*	*105.00*
Summary for 'Subject Area' = HORT228 (10 detail records)							*123.00*	*197.00*	*274.78*
Grand Total of Courses taught by Faculty in Agronomy and Horticulture							***3,159.41***	***6,484.46***	***7,840.38***

Note: Sorted by instructor and then subject area. This listing includes courses such as labs which may not have credit hours attached to them.

Student Credit Hours/Contact Hours by Department, Subject and Faculty Teaching the Course
Fall 2015 (20161)
College: College of Agri Sci and Natl Resources *Department: Agronomy and Horticulture*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Agribusiness									
Name of Instructor: Lambe,David Paul			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
ABUS388	700	300	ABUS388	LEC	Agribusiness Entrshp	50.00	2.50	7.50	7.50
ABUS388	001	300	ABUS388	LEC	Agribusiness Entrshp	50.00	3.50	10.50	8.75
Summary for 'Instructor' = Lambe,David Paul					***(2 detail records)***		*6.00*	*18.00*	*16.25*
Summary for 'Subject Area' = ABUS388 (2 detail records)							*6.00*	*18.00*	*16.25*
Agribusiness Entrepreneurship									
Name of Instructor: Lambe,David Paul			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
EAEP488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	9.00	27.00	27.00
EAEP275	791	200	AECN275	LEC	Agribus Entr Finance	100.00	4.00	12.00	5.92
EAEP275	951	200	AECN275	LEC	Agribus Entr Finance	100.00	7.00	21.00	18.48
EAEP388	700	300	ABUS388	LEC	Agribusiness Entrshp	50.00	0.50	1.50	1.50
EAEP888	001	800	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	1.00	3.00	3.00
EAEP488	700	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	5.00	15.00	15.00
EAEP388	001	300	ABUS388	LEC	Agribusiness Entrshp	50.00	7.00	21.00	17.50
Summary for 'Instructor' = Lambe,David Paul					***(7 detail records)***		*33.50*	*100.50*	*88.40*
Summary for 'Subject Area' = ABUS388 (7 detail records)							*33.50*	*100.50*	*88.40*
Agricultural Economics (AECN)									
Name of Instructor: Lambe,David Paul			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
AECN275	791	200	AECN275	LEC	Agribus Entr Finance	100.00	20.00	60.00	29.60
AECN275	951	200	AECN275	LEC	Agribus Entr Finance	100.00	13.00	39.00	34.32
Summary for 'Instructor' = Lambe,David Paul					***(2 detail records)***		*33.00*	*99.00*	*63.92*
Summary for 'Subject Area' = AECN275 (2 detail records)							*33.00*	*99.00*	*63.92*
Agricultural Engineering									
Name of Instructor: Ferguson,Richard B			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGEN431	152	400	AGEN431	LAB	Site-spec Crop Mgt	50.00	1.00	0.00	3.00
AGEN431	151	400	AGEN431	LAB	Site-spec Crop Mgt	50.00	1.50	0.00	4.50
AGEN431	150	400	AGEN431	LEC	Site-spec Crop Mgt	40.00	2.00	6.00	4.00
Summary for 'Instructor' = Ferguson,Richard B					***(3 detail records)***		*4.50*	*6.00*	*11.50*
Summary for 'Subject Area' = AGEN431 (3 detail records)							*4.50*	*6.00*	*11.50*
Agricultural Sciences (AGRI)									

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Name of Instructor: Ramirez II,Salvador				**Tenure Status: 3 Grad**		**Rank: 7 Grad Rch Asst**		**Full- or Part-Time: 3 Tch Asst**	
AGRI103	154	100	AGRI103	RCT	Intro Ag&nat Res Sys	100.00	25.00	0.00	25.00
Summary for 'Instructor' = Ramirez II,Salvador						***(1 detail record)***	*25.00*	*0.00*	*25.00*
Name of Instructor: Sandall,Leah Lynn				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRI115	800	100	AGRI115	LEC	Biotch:food Hlth&env	100.00	1.00	3.00	3.00
AGRI115	700	100	AGRI115	LEC	Biotch:food Hlth&env	100.00	35.00	105.00	105.00
Summary for 'Instructor' = Sandall,Leah Lynn						***(2 detail records)***	*36.00*	*108.00*	*108.00*
Summary for 'Subject Area' = AGRI115 (3 detail records)							*61.00*	*108.00*	*133.00*
Agronomy (AGRO)									
Name of Instructor: Amundsen,Keenan L				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO496	007	400	AGRO496	IND	Independent Study	100.00	3.00	9.00	9.00
AGRO896	001	800	AGRO496	IND	Independent Study	5.00	0.25	0.50	0.50
AGRO896	007	800	AGRO496	IND	Independent Study	100.00	10.00	30.00	30.00
AGRO496	001	400	AGRO496	IND	Independent Study	5.00	0.25	0.45	0.45
AGRO227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Amundsen,Keenan L						***(5 detail records)***	*14.50*	*42.95*	*42.95*
Name of Instructor: Arkebauer,Timothy John				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	5.41	1.35	4.00	4.00
AGRO807	001	800	AGRO807	LEC	Plant-water Relation	100.00	18.00	54.00	54.00
Summary for 'Instructor' = Arkebauer,Timothy John						***(2 detail records)***	*19.35*	*58.00*	*58.00*
Name of Instructor: Baenziger,Peter Stephen				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO815B	792	800	AGRO815B	LEC	Germplasm & Genes	100.00	8.00	8.00	2.35
AGRO815A	951	800	AGRO815A	LEC	Self Pollinated Crop	100.00	4.00	4.00	3.20
AGRO815B	951	800	AGRO815B	LEC	Germplasm & Genes	100.00	3.00	3.00	2.64
AGRO815D	792	800	AGRO815D	LEC	Cross Polinated Crop	100.00	8.00	8.00	2.35
AGRO815A	792	800	AGRO815A	LEC	Self Pollinated Crop	100.00	10.00	10.00	2.67
AGRO815D	951	800	AGRO815D	LEC	Cross Polinated Crop	100.00	4.00	4.00	3.52
AGRO899	001	800	AGRO899	IND	Masters Thesis	8.11	2.03	6.00	6.00
AGRO899	700	800	AGRO899	IND	Masters Thesis	100.00	1.00	3.00	3.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	5.94	3.21	15.50	15.50
Summary for 'Instructor' = Baenziger,Peter Stephen						***(9 detail records)***	*43.23*	*61.50*	*41.22*
Name of Instructor: Barnes,Ethann Robert				**Tenure Status: 3 Grad**		**Rank: 7 Grad Rch Asst**		**Full- or Part-Time: 3 Tch Asst**	
AGRO132	002	100	AGRO132	LAB	Agronmc Plant Sci Lab	25.00	6.00	6.00	12.00
AGRO132	001	100	AGRO132	LAB	Agronmc Plant Sci Lab	25.00	6.00	6.00	12.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Barnes,Ethann Robert					***(2 detail records)***		*12.00*	*12.00*	*24.00*
Name of Instructor: Blanco,Humberto				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO879	001	800	AGRO479	LEC	Applied Soil Physics	100.00	4.00	12.00	16.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	4.05	1.01	3.00	3.00
AGRO498	001	400	AGRO498	IND	Senior Project	100.00	1.00	1.00	1.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.15	0.62	3.00	3.00
AGRO479	001	400	AGRO479	LEC	Applied Soil Physics	100.00	1.00	3.00	4.00
AGRO269	001	200	AGRO269	LEC	Princ Soil Mgt	100.00	62.00	186.00	186.00
Summary for 'Instructor' = Blanco,Humberto					***(6 detail records)***		*69.63*	*208.00*	*213.00*
Name of Instructor: Chahal,Parminder Singh				**Tenure Status: 3 Grad**		**Rank: 7 Grad Rch Asst**		**Full- or Part-Time: 3 Tch Asst**	
AGRO132	005	100	AGRO132	LAB	Agronmc Plant Sci Lab	25.00	6.00	6.00	12.00
AGRO132	006	100	AGRO132	LAB	Agronmc Plant Sci Lab	25.00	6.00	6.00	12.00
Summary for 'Instructor' = Chahal,Parminder Singh					***(2 detail records)***		*12.00*	*12.00*	*24.00*
Name of Instructor: Clemente,Thomas E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	10.34	5.59	27.00	27.00
AGRO811	791	800	AGRO411	LEC	Crop Genetic Engr	50.00	6.50	13.00	5.03
AGRO811	951	800	AGRO411	LEC	Crop Genetic Engr	50.00	1.50	3.00	1.16
AGRO411	791	400	AGRO411	LEC	Crop Genetic Engr	50.00	5.50	11.00	4.25
Summary for 'Instructor' = Clemente,Thomas E					***(4 detail records)***		*19.09*	*54.00*	*37.44*
Name of Instructor: Drijber,Rhae A				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.15	0.62	3.00	3.00
AGRO996A	001	900	AGRO996A	IND	Research In Soils	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Drijber,Rhae A					***(2 detail records)***		*1.62*	*6.00*	*6.00*
Name of Instructor: Dunn,Cheryl D				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO442	150	400	AGRO442	LEC	Wildland Plants	100.00	4.00	12.00	8.00
AGRO442	151	400	AGRO442	LAB	Wildland Plants	100.00	4.00	0.00	16.00
Summary for 'Instructor' = Dunn,Cheryl D					***(2 detail records)***		*8.00*	*12.00*	*24.00*
Name of Instructor: Dweikat,Ismail M				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.77	0.41	2.00	2.00
AGRO992	001	900	AGRO992	LEC	General Seminar	100.00	13.00	13.00	13.00
Summary for 'Instructor' = Dweikat,Ismail M					***(2 detail records)***		*13.41*	*15.00*	*15.00*
Name of Instructor: Elmore,Roger W				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.15	0.62	3.00	3.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Elmore,Roger W					***(1 detail record)***		*0.62*	*3.00*	*3.00*
Name of Instructor: Ferguson,Richard B				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO896	001	800	AGRO496	IND	Independent Study	16.00	0.80	1.60	1.60
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.53	0.83	4.00	4.00
AGRO496	001	400	AGRO496	IND	Independent Study	16.00	0.80	1.44	1.44
AGRO431	151	400	AGEN431	LAB	Site-spec Crop Mgt	50.00	13.00	0.00	39.00
AGRO431	152	400	AGEN431	LAB	Site-spec Crop Mgt	50.00	11.00	0.00	33.00
AGRO431	150	400	AGEN431	LEC	Site-spec Crop Mgt	40.00	19.20	57.60	38.40
Summary for 'Instructor' = Ferguson,Richard B					***(6 detail records)***		*45.63*	*64.64*	*117.44*
Name of Instructor: Francis,Charles A				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO894	700	800	AGRO894	IND	Grad Degree Proj Cr	15.00	0.45	0.90	0.90
Summary for 'Instructor' = Francis,Charles A					***(1 detail record)***		*0.45*	*0.90*	*0.90*
Name of Instructor: Gaussoin,Roch E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO896	001	800	AGRO496	IND	Independent Study	5.00	0.25	0.50	0.50
AGRO496	001	400	AGRO496	IND	Independent Study	5.00	0.25	0.45	0.45
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	3.45	1.86	9.00	9.00
Summary for 'Instructor' = Gaussoin,Roch E					***(3 detail records)***		*2.36*	*9.95*	*9.95*
Name of Instructor: Graef,George L				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	9.46	2.36	7.00	7.00
AGRO295	001	200	AGRO295	FLD	Internship In Agro	100.00	14.00	14.00	14.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	7.66	4.14	20.00	20.00
Summary for 'Instructor' = Graef,George L					***(3 detail records)***		*20.50*	*41.00*	*41.00*
Name of Instructor: Grassini,Patricio				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO896	001	800	AGRO496	IND	Independent Study	10.00	0.50	1.00	1.00
AGRO496	001	400	AGRO496	IND	Independent Study	10.00	0.50	0.90	0.90
AGRO899	001	800	AGRO899	IND	Masters Thesis	10.81	2.70	8.00	8.00
Summary for 'Instructor' = Grassini,Patricio					***(3 detail records)***		*3.70*	*9.90*	*9.90*
Name of Instructor: Greene,Michael James				**Tenure Status: 3 Grad**		**Rank: 7 Grad Rch Asst**		**Full- or Part-Time: 3 Tch Asst**	
AGRO132	007	100	AGRO132	LAB	Agronmc Plant Sci Lab	25.00	6.25	6.25	12.50
AGRO132	002	100	AGRO132	LAB	Agronmc Plant Sci Lab	25.00	6.00	6.00	12.00
Summary for 'Instructor' = Greene,Michael James					***(2 detail records)***		*12.25*	*12.25*	*24.50*
Name of Instructor: Guretzky,John Andrew				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO240	150	200	AGRO240	LEC	Forage Crop&rnge Mgt	100.00	84.00	336.00	252.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	2.03	0.51	1.50	1.50

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO240	152	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	21.00	0.00	42.00
AGRO240	153	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	24.00	0.00	48.00
AGRO240	154	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	18.00	0.00	36.00
AGRO240	151	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	21.00	0.00	42.00
Summary for 'Instructor' = Guretzky,John Andrew					***(6 detail records)***		*168.51*	*337.50*	*421.50*
Name of Instructor: Holding,David R			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO131	003	100	AGRO131	LEC	Plant Science	100.00	28.00	84.00	84.00
AGRO896	001	800	AGRO496	IND	Independent Study	11.00	0.55	1.10	1.10
AGRO496	001	400	AGRO496	IND	Independent Study	11.00	0.55	0.99	0.99
Summary for 'Instructor' = Holding,David R					***(3 detail records)***		*29.10*	*86.09*	*86.09*
Name of Instructor: Jhala,Amitkumar			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO899	001	800	AGRO899	IND	Masters Thesis	2.70	0.68	2.00	2.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	6.51	3.52	17.00	17.00
Summary for 'Instructor' = Jhala,Amitkumar					***(2 detail records)***		*4.19*	*19.00*	*19.00*
Name of Instructor: Kettler,Timothy Alan			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
AGRO153	150	100	AGRO153	LEC	Soil Resources	50.00	51.50	206.00	51.50
AGRO153	151	100	AGRO153	LAB	Soil Resources	50.00	4.50	0.00	18.00
AGRO153	152	100	AGRO153	LAB	Soil Resources	50.00	5.00	0.00	20.00
AGRO153	153	100	AGRO153	LAB	Soil Resources	50.00	8.00	0.00	32.00
AGRO153	154	100	AGRO153	LAB	Soil Resources	50.00	6.50	0.00	26.00
AGRO153	156	100	AGRO153	LAB	Soil Resources	50.00	9.00	0.00	36.00
AGRO153	157	100	AGRO153	LAB	Soil Resources	50.00	9.00	0.00	36.00
Summary for 'Instructor' = Kettler,Timothy Alan					***(7 detail records)***		*93.50*	*206.00*	*219.50*
Name of Instructor: Kreuser,William C			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.19	0.10	0.50	0.50
Summary for 'Instructor' = Kreuser,William C					***(1 detail record)***		*0.10*	*0.50*	*0.50*
Name of Instructor: Kruger,Greg R			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	4.02	2.17	10.50	10.50
AGRO899	001	800	AGRO899	IND	Masters Thesis	1.35	0.34	1.00	1.00
Summary for 'Instructor' = Kruger,Greg R					***(2 detail records)***		*2.51*	*11.50*	*11.50*
Name of Instructor: Lagrimini,Mark			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO894	700	800	AGRO894	IND	Grad Degree Proj Cr	14.00	0.42	0.84	0.84
Summary for 'Instructor' = Lagrimini,Mark					***(1 detail record)***		*0.42*	*0.84*	*0.84*
Name of Instructor: Lambe,David Paul			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	6.00	18.00	18.00
AGRO496	001	400	AGRO496	IND	Independent Study	5.00	0.25	0.45	0.45
AGRO275	791	200	AECN275	LEC	Agribus Entr Finance	100.00	1.00	3.00	1.48
AGRO275	951	200	AECN275	LEC	Agribus Entr Finance	100.00	1.00	3.00	2.71
AGRO488	700	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	5.00	15.00	15.00
AGRO896	001	800	AGRO496	IND	Independent Study	5.00	0.25	0.50	0.50
AGRO388	001	300	ABUS388	LEC	Agribusiness Entrshp	50.00	0.50	1.50	1.25
AGRO888	700	800	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Lambe,David Paul						***(8 detail records)***	*15.00*	*44.45*	*42.39*
Name of Instructor: Lee,Donald J				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO131	700	100	AGRO131	LEC	Plant Science	50.00	30.00	90.00	90.00
AGRO131	800	100	AGRO131	LEC	Plant Science	50.00	2.00	6.00	6.00
AGRO496	792	400	AGRO496	IND	Independent Study	100.00	2.00	2.00	1.36
AGRO812	791	800	AGRO412	LEC	Crop & Weed Genetics	100.00	17.00	17.00	6.57
AGRO496	002	400	AGRO496	IND	Independent Study	100.00	3.00	9.00	9.00
AGRO496	001	400	AGRO496	IND	Independent Study	16.00	0.80	1.44	1.44
AGRO496	791	400	AGRO496	IND	Independent Study	100.00	1.00	1.00	0.64
AGRO812	951	800	AGRO412	LEC	Crop & Weed Genetics	100.00	2.00	2.00	0.77
AGRO131	155	100	AGRO131	RCT	Plant Science	50.00	11.50	0.00	23.00
AGRO131	152	100	AGRO131	RCT	Plant Science	50.00	11.50	0.00	23.00
AGRO131	156	100	AGRO131	RCT	Plant Science	100.00	12.00	0.00	24.00
AGRO131	151	100	AGRO131	RCT	Plant Science	50.00	10.50	0.00	21.00
AGRO894	700	800	AGRO894	IND	Grad Degree Proj Cr	14.00	0.42	0.84	0.84
AGRO131	150	100	AGRO131	LEC	Plant Science	100.00	103.00	309.00	206.00
AGRO896	001	800	AGRO496	IND	Independent Study	16.00	0.80	1.60	1.60
AGRO896	791	800	AGRO496	IND	Independent Study	100.00	1.00	1.00	0.68
AGRO896	792	800	AGRO496	IND	Independent Study	100.00	2.00	2.00	1.36
AGRO131	153	100	AGRO131	RCT	Plant Science	50.00	12.00	0.00	24.00
AGRO315	153	300	AGRO315	LAB	Genetics	100.00	30.00	0.00	60.00
AGRO315	001	300	AGRO315	LEC	Genetics	100.00	19.00	76.00	38.00
AGRO315	150	300	AGRO315	LEC	Genetics	100.00	82.00	328.00	246.00
AGRO315	152	300	AGRO315	LAB	Genetics	100.00	29.00	0.00	58.00
AGRO315	154	300	AGRO315	LAB	Genetics	100.00	23.00	0.00	46.00
AGRO315	700	300	AGRO315	LEC	Genetics	100.00	39.00	156.00	156.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO412	791	400	AGRO412	LEC	Crop & Weed Genetics	100.00	8.00	8.00	3.09
AGRO412	951	400	AGRO412	LEC	Crop & Weed Genetics	100.00	1.00	1.00	0.39
Summary for 'Instructor' = Lee,Donald J					***(26 detail records)***		*453.52*	*1,011.88*	*1,048.75*
Name of Instructor: Lindquist,John Leroy			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	3.45	1.86	9.00	9.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	1.35	0.34	1.00	1.00
Summary for 'Instructor' = Lindquist,John Leroy					***(2 detail records)***		*2.20*	*10.00*	*10.00*
Name of Instructor: Mackenzie,Sally			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO899	001	800	AGRO899	IND	Masters Thesis	6.76	1.69	5.00	5.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	7.66	4.14	20.00	20.00
Summary for 'Instructor' = Mackenzie,Sally					***(2 detail records)***		*5.83*	*25.00*	*25.00*
Name of Instructor: Mason,Stephen C			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO894	700	800	AGRO894	IND	Grad Degree Proj Cr	57.00	1.71	3.42	3.42
AGRO405	001	400	AGRO405	LEC	Crop Mgt Strategies	100.00	27.00	81.00	81.00
Summary for 'Instructor' = Mason,Stephen C					***(2 detail records)***		*28.71*	*84.42*	*84.42*
Name of Instructor: McCallister,Dennis L			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO201	001	200	AGRO201	LEC	Prep Agron Career	100.00	48.00	48.00	96.00
AGRO153	153	100	AGRO153	LAB	Soil Resources	50.00	8.00	0.00	32.00
AGRO153	156	100	AGRO153	LAB	Soil Resources	50.00	9.00	0.00	36.00
AGRO153	157	100	AGRO153	LAB	Soil Resources	50.00	9.00	0.00	36.00
AGRO153	151	100	AGRO153	LAB	Soil Resources	50.00	4.50	0.00	18.00
AGRO153	152	100	AGRO153	LAB	Soil Resources	50.00	5.00	0.00	20.00
AGRO153	150	100	AGRO153	LEC	Soil Resources	50.00	51.50	206.00	51.50
AGRO153	154	100	AGRO153	LAB	Soil Resources	50.00	6.50	0.00	26.00
Summary for 'Instructor' = McCallister,Dennis L					***(8 detail records)***		*141.50*	*254.00*	*315.50*
Name of Instructor: Mower,Jeffrey P			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	3.83	2.07	10.00	10.00
AGRO496	001	400	AGRO496	IND	Independent Study	16.00	0.80	1.44	1.44
AGRO896	001	800	AGRO496	IND	Independent Study	16.00	0.80	1.60	1.60
Summary for 'Instructor' = Mower,Jeffrey P					***(3 detail records)***		*3.67*	*13.04*	*13.04*
Name of Instructor: Paparozzi,Ellen T			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO92	951	0	AGRO92	LEC	Plant Bio Port&assmt	100.00	3.00	0.00	0.72
Summary for 'Instructor' = Paparozzi,Ellen T					***(1 detail record)***		*3.00*	*0.00*	*0.72*
Name of Instructor: Sandall,Leah Lynn			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO411	791	400	AGRO411	LEC	Crop Genetic Engr	50.00	5.50	11.00	4.25
AGRO811	951	800	AGRO411	LEC	Crop Genetic Engr	50.00	1.50	3.00	1.16
AGRO811	791	800	AGRO411	LEC	Crop Genetic Engr	50.00	6.50	13.00	5.03
Summary for 'Instructor' = Sandall,Leah Lynn					***(3 detail records)***		*13.50*	*27.00*	*10.44*
Name of Instructor: Schacht,Walter H				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO845	001	800	AGRO845	LEC	Livestock Mgt Range	50.00	1.00	3.00	3.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	3.38	0.84	2.50	2.50
Summary for 'Instructor' = Schacht,Walter H					***(2 detail records)***		*1.84*	*5.50*	*5.50*
Name of Instructor: Schachtman,Daniel P				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO896	001	800	AGRO496	IND	Independent Study	5.00	0.25	0.50	0.50
AGRO496	001	400	AGRO496	IND	Independent Study	5.00	0.25	0.45	0.45
Summary for 'Instructor' = Schachtman,Daniel P					***(2 detail records)***		*0.50*	*0.95*	*0.95*
Name of Instructor: Schnable,James C				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	2.30	1.24	6.00	6.00
Summary for 'Instructor' = Schnable,James C					***(1 detail record)***		*1.24*	*6.00*	*6.00*
Name of Instructor: Shapiro,Charles Alan				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.53	0.83	4.00	4.00
Summary for 'Instructor' = Shapiro,Charles Alan					***(1 detail record)***		*0.83*	*4.00*	*4.00*
Name of Instructor: Shaver,Timothy M				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.53	0.83	4.00	4.00
Summary for 'Instructor' = Shaver,Timothy M					***(1 detail record)***		*0.83*	*4.00*	*4.00*
Name of Instructor: Sindelar,Meghan E				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO132	004	100	AGRO132	LAB	Agronmc Plant Sci Lab	100.00	25.00	25.00	50.00
AGRO132	006	100	AGRO132	LAB	Agronmc Plant Sci Lab	75.00	18.00	18.00	36.00
AGRO153	155	100	AGRO153	LAB	Soil Resources	100.00	19.00	0.00	76.00
AGRO132	003	100	AGRO132	LAB	Agronmc Plant Sci Lab	100.00	24.00	24.00	48.00
AGRO132	002	100	AGRO132	LAB	Agronmc Plant Sci Lab	50.00	12.00	12.00	24.00
AGRO132	001	100	AGRO132	LAB	Agronmc Plant Sci Lab	75.00	18.00	18.00	36.00
AGRO132	005	100	AGRO132	LAB	Agronmc Plant Sci Lab	75.00	18.00	18.00	36.00
AGRO132	007	100	AGRO132	LAB	Agronmc Plant Sci Lab	75.00	18.75	18.75	37.50
Summary for 'Instructor' = Sindelar,Meghan E					***(8 detail records)***		*152.75*	*133.75*	*343.50*
Name of Instructor: Streich,Anne Marie				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO131	700	100	AGRO131	LEC	Plant Science	50.00	30.00	90.00	90.00
AGRO131	800	100	AGRO131	LEC	Plant Science	50.00	2.00	6.00	6.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Streich,Anne Marie					***(2 detail records)***		*32.00*	*96.00*	*96.00*
Name of Instructor: Twidwell Jr,Dirac L				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO496	003	400	AGRO496	IND	Independent Study	100.00	2.00	2.00	2.00
AGRO844	150	800	AGRO444	LEC	Ecosys Monitor&assmt	100.00	4.00	12.00	12.00
AGRO444	150	400	AGRO444	LEC	Ecosys Monitor&assmt	100.00	2.00	6.00	6.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.92	1.03	5.00	5.00
Summary for 'Instructor' = Twidwell Jr,Dirac L					***(4 detail records)***		*9.03*	*25.00*	*25.00*
Name of Instructor: Urrea Florez,Carlos A				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	5.41	1.35	4.00	4.00
Summary for 'Instructor' = Urrea Florez,Carlos A					***(1 detail record)***		*1.35*	*4.00*	*4.00*
Name of Instructor: Vavala,Robert Vincent				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO131	153	100	AGRO131	RCT	Plant Science	50.00	12.00	0.00	24.00
AGRO107	700	100	AGRO107	LEC	Invasive Plant:impact	100.00	39.00	117.00	117.00
AGRO131	155	100	AGRO131	RCT	Plant Science	50.00	11.50	0.00	23.00
AGRO131	001	100	AGRO131	LEC	Plant Science	100.00	17.00	51.00	34.00
AGRO131	152	100	AGRO131	RCT	Plant Science	50.00	11.50	0.00	23.00
AGRO131	151	100	AGRO131	RCT	Plant Science	50.00	10.50	0.00	21.00
Summary for 'Instructor' = Vavala,Robert Vincent					***(6 detail records)***		*101.50*	*168.00*	*242.00*
Name of Instructor: Volesky,Jerry D				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	1.35	0.34	1.00	1.00
Summary for 'Instructor' = Volesky,Jerry D					***(1 detail record)***		*0.34*	*1.00*	*1.00*
Name of Instructor: Walia,Harkamal				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	3.83	2.07	10.00	10.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	6.76	1.69	5.00	5.00
Summary for 'Instructor' = Walia,Harkamal					***(2 detail records)***		*3.76*	*15.00*	*15.00*
Name of Instructor: Waters,Brian M				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	1.35	0.34	1.00	1.00
Summary for 'Instructor' = Waters,Brian M					***(1 detail record)***		*0.34*	*1.00*	*1.00*
Name of Instructor: Wortmann,Charles Stephen				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.92	1.03	5.00	5.00
Summary for 'Instructor' = Wortmann,Charles Stephen					***(1 detail record)***		*1.03*	*5.00*	*5.00*
Name of Instructor: Yang,Haishun				**Tenure Status: 2 Tenure-Track**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO906	150	900	AGRO906	LEC	Crop Growth & Yield	50.00	3.50	10.50	7.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	3.45	1.86	9.00	9.00
AGRO906	151	900	AGRO906	LAB	Crop Growth & Yield	50.00	3.50	0.00	10.50
AGRO906	751	900	AGRO906	LAB	Crop Growth & Yield	50.00	5.00	0.00	5.00
AGRO906	700	900	AGRO906	LEC	Crop Growth & Yield	90.00	9.00	27.00	27.00
Summary for 'Instructor' = Yang,Haishun					***(5 detail records)***		*22.86*	*46.50*	*58.50*
Summary for 'Subject Area' = AGRO906 (170 detail records)							*1,593.82*	*3,270.01*	*3,812.94*
Animal Science									
Name of Instructor: Schacht,Walter H				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
ASCI851	001	800	AGRO845	LEC	Livestock Mgt Range	50.00	1.00	3.00	3.00
ASCI451	001	400	AGRO845	LEC	Livestock Mgt Range	50.00	5.00	15.00	15.00
Summary for 'Instructor' = Schacht,Walter H					***(2 detail records)***		*6.00*	*18.00*	*18.00*
Summary for 'Subject Area' = AGRO845 (2 detail records)							*6.00*	*18.00*	*18.00*
Architecture									
Name of Instructor: Todd,Kim Anne				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
ARCH567	001	500	ARCH467	LEC	Planting Design	100.00	5.00	20.00	30.00
ARCH467	001	400	ARCH467	LEC	Planting Design	100.00	3.00	12.00	18.00
Summary for 'Instructor' = Todd,Kim Anne					***(2 detail records)***		*8.00*	*32.00*	*48.00*
Summary for 'Subject Area' = ARCH467 (2 detail records)							*8.00*	*32.00*	*48.00*
Biological Sciences (BIOS)									
Name of Instructor: Elthon,Thomas E				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 2 Part-time**	
BIOS879	001	800	BIOS879	LEC	Plant Growth & Devel	100.00	14.00	42.00	42.00
Summary for 'Instructor' = Elthon,Thomas E					***(1 detail record)***		*14.00*	*42.00*	*42.00*
Summary for 'Subject Area' = BIOS879 (1 detail record)							*14.00*	*42.00*	*42.00*
Entomology									
Name of Instructor: Johnson,Lana				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
ENTO915	700	900	ENTO915	LEC	Presentation Methods	50.00	5.00	15.00	15.00
Summary for 'Instructor' = Johnson,Lana					***(1 detail record)***		*5.00*	*15.00*	*15.00*
Summary for 'Subject Area' = ENTO915 (1 detail record)							*5.00*	*15.00*	*15.00*
Entrepreneurship									
Name of Instructor: Lambe,David Paul				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
ENTR275	951	200	AECN275	LEC	Agribus Entr Finance	100.00	5.00	15.00	13.20
ENTR488	700	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	3.00	9.00	9.00
ENTR488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	1.00	3.00	3.00
ENTR388	001	300	ABUS388	LEC	Agribusiness Entrshp	50.00	0.50	1.50	1.25

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
ENTR275	791	200	AECN275	LEC	Agribus Entr Finance	100.00	2.00	6.00	2.96
ENTR388	700	300	ABUS388	LEC	Agribusiness Entrshp	50.00	2.00	6.00	6.00
Summary for 'Instructor' = Lambe,David Paul						***(6 detail records)***	*13.50*	*40.50*	*35.41*
Summary for 'Subject Area' = ABUS388 (6 detail records)							*13.50*	*40.50*	*35.41*
Geography									
Name of Instructor: Sutton,Richard K				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
GEOG200	001	200	GEOG200	LEC	Landscape&envir Appr	100.00	6.00	18.00	18.00
Summary for 'Instructor' = Sutton,Richard K						***(1 detail record)***	*6.00*	*18.00*	*18.00*
Summary for 'Subject Area' = GEOG200 (1 detail record)							*6.00*	*18.00*	*18.00*
Horticulture									
Name of Instructor: Adams,Stacy Ardean				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
HORT261	156	200	HORT261	LAB	Floral Design I	100.00	26.00	0.00	52.00
HORT261	150	200	HORT261	LEC	Floral Design I	100.00	100.00	300.00	200.00
HORT261	153	200	HORT261	LAB	Floral Design I	100.00	26.00	0.00	52.00
HORT133	001	100	HORT133	LAB	Hort Plant Sci Lab	100.00	16.00	16.00	32.00
HORT261	155	200	HORT261	LAB	Floral Design I	100.00	24.00	0.00	48.00
HORT261	152	200	HORT261	LAB	Floral Design I	100.00	24.00	0.00	48.00
HORT395	001	300	HORT395	FLD	Career Experience	100.00	11.00	15.00	15.00
HORT399	001	300	HORT399	IND	Independent Study	37.50	1.13	3.00	3.00
HORT133	002	100	HORT133	LAB	Hort Plant Sci Lab	100.00	19.00	19.00	38.00
Summary for 'Instructor' = Adams,Stacy Ardean						***(9 detail records)***	*247.13*	*353.00*	*488.00*
Name of Instructor: Amundsen,Keenan L				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
HORT227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	100.00	7.00	21.00	21.00
Summary for 'Instructor' = Amundsen,Keenan L						***(1 detail record)***	*7.00*	*21.00*	*21.00*
Name of Instructor: Francis,Charles A				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT894	700	800	AGRO894	IND	Grad Degree Proj Cr	15.00	0.15	0.15	0.15
Summary for 'Instructor' = Francis,Charles A						***(1 detail record)***	*0.15*	*0.15*	*0.15*
Name of Instructor: Gaussoin,Roch E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT896	700	800	HORT896	IND	Independent Study	100.00	1.00	2.00	2.00
Summary for 'Instructor' = Gaussoin,Roch E						***(1 detail record)***	*1.00*	*2.00*	*2.00*
Name of Instructor: Holding,David R				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
HORT131	003	100	AGRO131	LEC	Plant Science	100.00	7.00	21.00	21.00
Summary for 'Instructor' = Holding,David R						***(1 detail record)***	*7.00*	*21.00*	*21.00*
Name of Instructor: Kettler,Timothy Alan				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
HORT153	152	100	AGRO153	LAB	Soil Resources	50.00	1.50	0.00	6.00
HORT153	153	100	AGRO153	LAB	Soil Resources	50.00	1.00	0.00	4.00
HORT153	154	100	AGRO153	LAB	Soil Resources	50.00	1.50	0.00	6.00
HORT153	150	100	AGRO153	LEC	Soil Resources	50.00	5.50	22.00	5.50
HORT153	151	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	156	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	157	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
Summary for 'Instructor' = Kettler,Timothy Alan					***(7 detail records)***		*11.00*	*22.00*	*27.50*
Name of Instructor: Lagrimini,Mark				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT894	700	800	AGRO894	IND	Grad Degree Proj Cr	14.00	0.14	0.14	0.14
Summary for 'Instructor' = Lagrimini,Mark					***(1 detail record)***		*0.14*	*0.14*	*0.14*
Name of Instructor: Lambe,David Paul				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
HORT888	991	800	HORT888	LEC	Bus Mgt In Ag Entprs	100.00	3.00	9.00	8.28
HORT488	700	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	4.00	12.00	12.00
HORT488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	100.00	9.00	27.00	27.00
HORT388	700	300	ABUS388	LEC	Agribusiness Entrshp	50.00	2.50	7.50	7.50
HORT388	001	300	ABUS388	LEC	Agribusiness Entrshp	50.00	2.00	6.00	5.00
Summary for 'Instructor' = Lambe,David Paul					***(5 detail records)***		*20.50*	*61.50*	*59.78*
Name of Instructor: Lee,Donald J				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT131	155	100	AGRO131	RCT	Plant Science	50.00	0.50	0.00	1.00
HORT131	700	100	AGRO131	LEC	Plant Science	50.00	5.00	15.00	15.00
HORT131	150	100	AGRO131	LEC	Plant Science	100.00	13.00	39.00	26.00
HORT131	151	100	AGRO131	RCT	Plant Science	50.00	3.00	0.00	6.00
HORT131	153	100	AGRO131	RCT	Plant Science	50.00	2.00	0.00	4.00
HORT131	152	100	AGRO131	RCT	Plant Science	50.00	1.00	0.00	2.00
HORT894	700	800	AGRO894	IND	Grad Degree Proj Cr	14.00	0.14	0.14	0.14
Summary for 'Instructor' = Lee,Donald J					***(7 detail records)***		*24.64*	*54.14*	*54.14*
Name of Instructor: Mason,Stephen C				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT894	700	800	AGRO894	IND	Grad Degree Proj Cr	57.00	0.57	0.57	0.57
Summary for 'Instructor' = Mason,Stephen C					***(1 detail record)***		*0.57*	*0.57*	*0.57*
Name of Instructor: McCallister,Dennis L				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HORT153	154	100	AGRO153	LAB	Soil Resources	50.00	1.50	0.00	6.00
HORT153	153	100	AGRO153	LAB	Soil Resources	50.00	1.00	0.00	4.00
HORT153	150	100	AGRO153	LEC	Soil Resources	50.00	5.50	22.00	5.50

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
HORT153	156	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	152	100	AGRO153	LAB	Soil Resources	50.00	1.50	0.00	6.00
HORT153	151	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT153	157	100	AGRO153	LAB	Soil Resources	50.00	0.50	0.00	2.00
HORT453	001	400	HORT453	LEC	Urban Soil & Mngt	100.00	5.00	15.00	15.00
Summary for 'Instructor' = McCallister,Dennis L					***(8 detail records)***		*16.00*	*37.00*	*42.50*
Name of Instructor: Paparozzi,Ellen T			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
HORT352	001	300	HORT352	LEC	Prod&physio Of Crops	50.00	13.50	27.00	27.00
HORT355	001	300	HORT355	LAB	Perennl Pot Plnt Lab	100.00	10.00	20.00	30.00
HORT899	001	800	HORT899	IND	Masters Thesis	50.00	0.50	1.00	1.00
HORT843M	993	800	HORT843M	LEC	Weed Science	100.00	2.00	6.00	5.52
Summary for 'Instructor' = Paparozzi,Ellen T					***(4 detail records)***		*26.00*	*54.00*	*63.52*
Name of Instructor: Read,Paul E			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
HORT871	951	800	HORT471	LAB	Vines Wines & You	100.00	1.00	0.00	0.51
HORT353	001	300	HORT353	LAB	Veg Crop Prodctn Lab	100.00	15.00	30.00	45.00
HORT471	950	400	HORT471	LEC	Vines Wines & You	100.00	26.00	78.00	79.04
HORT354	001	300	HORT354	LAB	Fruit Production Lab	100.00	15.00	30.00	45.00
HORT896	001	800	HORT896	IND	Independent Study	100.00	1.00	2.00	2.00
HORT899	001	800	HORT899	IND	Masters Thesis	50.00	0.50	1.00	1.00
HORT471	951	400	HORT471	LAB	Vines Wines & You	100.00	26.00	0.00	13.17
HORT352	001	300	HORT352	LEC	Prod&physio Of Crops	50.00	13.50	27.00	27.00
HORT871	950	800	HORT471	LEC	Vines Wines & You	100.00	1.00	3.00	3.04
HORT999	001	900	HORT999	IND	Doctoral Dissertatn	100.00	1.00	6.00	6.00
Summary for 'Instructor' = Read,Paul E					***(10 detail records)***		*100.00*	*177.00*	*221.76*
Name of Instructor: Simmons,Gregory Scott			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**		
HORT170	001	100	HORT170	LEC	Resdntl Landscp Dsgn	100.00	1.00	2.00	3.00
HORT212	002	200	HORT212	LEC	Landscape Plants I	10.00	0.80	2.40	2.40
Summary for 'Instructor' = Simmons,Gregory Scott					***(2 detail records)***		*1.80*	*4.40*	*5.40*
Name of Instructor: Streich,Anne Marie			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
HORT396	002	300	HORT396	IND	Current Projcts&tpcs	100.00	9.00	0.00	9.00
HORT131	700	100	AGRO131	LEC	Plant Science	50.00	5.00	15.00	15.00
HORT127	951	100	HORT127	LEC	Turfgrass&landscp Mgt	100.00	1.00	1.00	0.83
Summary for 'Instructor' = Streich,Anne Marie					***(3 detail records)***		*15.00*	*16.00*	*24.83*
Name of Instructor: Sutton,Richard K			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
HORT212	001	200	HORT212	LEC	Landscape Plants I	100.00	16.00	48.00	48.00
HORT212	002	200	HORT212	LEC	Landscape Plants I	90.00	7.20	21.60	21.60
HORT265	001	200	HORT265	LAB	Vis Com Landscp Dsgn	100.00	6.00	18.00	30.00
HORT200	001	200	GEOG200	LEC	Landscape&envir Appr	100.00	26.00	78.00	78.00
Summary for 'Instructor' = Sutton,Richard K					***(4 detail records)***		*55.20*	*165.60*	*177.60*
Name of Instructor: Todd,Kim Anne				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
HORT467	001	400	ARCH467	LEC	Planting Design	100.00	5.00	20.00	30.00
HORT399	001	300	HORT399	IND	Independent Study	62.50	1.88	5.00	5.00
HORT228	150	200	HORT228	LEC	Intro Landscape Mngt	100.00	5.00	15.00	10.00
HORT228	151	200	HORT228	LAB	Intro Landscape Mngt	100.00	5.00	0.00	15.00
HORT214	001	200	HORT214	LEC	Herbaceous Plants	100.00	32.00	96.00	96.00
Summary for 'Instructor' = Todd,Kim Anne					***(5 detail records)***		*48.88*	*136.00*	*156.00*
Name of Instructor: Vavala,Robert Vincent				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
HORT131	155	100	AGRO131	RCT	Plant Science	50.00	0.50	0.00	1.00
HORT131	153	100	AGRO131	RCT	Plant Science	50.00	2.00	0.00	4.00
HORT131	152	100	AGRO131	RCT	Plant Science	50.00	1.00	0.00	2.00
HORT131	151	100	AGRO131	RCT	Plant Science	50.00	3.00	0.00	6.00
HORT131	001	100	AGRO131	LEC	Plant Science	100.00	5.00	15.00	10.00
Summary for 'Instructor' = Vavala,Robert Vincent					***(5 detail records)***		*11.50*	*15.00*	*23.00*
Summary for 'Subject Area' = AGRO131 (75 detail records)							*593.50*	*1,140.50*	*1,388.89*
Horticulture - Omaha									
Name of Instructor: Gustafson,William A				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
HORT1310	004	100	HORT1310	LAB	Horticultural Sciences Lab	100.00	19.00	19.00	47.50
HORT1310	003	100	HORT1310	LAB	Horticultural Sciences Lab	100.00	9.00	9.00	22.50
HORT1310	002	100	HORT1310	LAB	Horticultural Sciences Lab	100.00	16.00	16.00	40.00
HORT1310	001	100	HORT1310	LAB	Horticultural Sciences Lab	100.00	24.00	24.00	60.00
HORT1300	001	100	HORT1300	LEC	Intro Horticultural Sciences	100.00	105.00	315.00	315.00
Summary for 'Instructor' = Gustafson,William A					***(5 detail records)***		*173.00*	*383.00*	*485.00*
Summary for 'Subject Area' = HORT1300 (5 detail records)							*173.00*	*383.00*	*485.00*
Hospitality Rest & Tourism Mng									
Name of Instructor: Read,Paul E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HRTM471	951	400	HORT471	LAB	Vines Wines & You	100.00	10.00	0.00	5.07
HRTM471	950	400	HORT471	LEC	Vines Wines & You	100.00	10.00	30.00	30.40
Summary for 'Instructor' = Read,Paul E					***(2 detail records)***		*20.00*	*30.00*	*35.47*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Subject Area' = HORT471 (2 detail records)							*20.00*	*30.00*	*35.47*
Landscape Architecture									
Name of Instructor: Simmons,Gregory Scott			**Tenure Status: 4 Adjunct**			**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
LARC212	002	200	HORT212	LEC	Landscape Plants I	10.00	0.70	2.10	2.10
Summary for 'Instructor' = Simmons,Gregory Scott						***(1 detail record)***	*0.70*	*2.10*	*2.10*
Name of Instructor: Sutton,Richard K			**Tenure Status: 1 Tenured**			**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
LARC200	001	200	GEOG200	LEC	Landscape&envir Appr	100.00	9.00	27.00	27.00
LARC212	002	200	HORT212	LEC	Landscape Plants I	90.00	6.30	18.90	18.90
LARC487	001	400	LARC487	LEC	Intro Landscape Ecol	100.00	6.00	18.00	18.00
Summary for 'Instructor' = Sutton,Richard K						***(3 detail records)***	*21.30*	*63.90*	*63.90*
Summary for 'Subject Area' = LARC487 (4 detail records)							*22.00*	*66.00*	*66.00*
Life Sciences									
Name of Instructor: Pedersen,Matthew Adam			**Tenure Status: 3 Grad**			**Rank: 7 Grad Rch Asst**		**Full- or Part-Time: 3 Tch Asst**	
LIFE120L	128	100	LIFE120L	LAB	Fund Biology Lab I	100.00	24.00	24.00	72.00
LIFE120L	130	100	LIFE120L	LAB	Fund Biology Lab I	100.00	22.00	22.00	66.00
Summary for 'Instructor' = Pedersen,Matthew Adam						***(2 detail records)***	*46.00*	*46.00*	*138.00*
Name of Instructor: Schnable,James C			**Tenure Status: 2 Tenure-Track**			**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
LIFE891	002	800	LIFE891	LEC	Special Topics	100.00	4.00	4.00	4.00
Summary for 'Instructor' = Schnable,James C						***(1 detail record)***	*4.00*	*4.00*	*4.00*
Summary for 'Subject Area' = LIFE891 (3 detail records)							*50.00*	*50.00*	*142.00*
Mechanized Systems Management									
Name of Instructor: Ferguson,Richard B			**Tenure Status: 1 Tenured**			**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
MSYM431	150	400	AGEN431	LEC	Site-spec Crop Mgt	40.00	5.20	15.60	10.40
MSYM431	152	400	AGEN431	LAB	Site-spec Crop Mgt	50.00	2.50	0.00	7.50
MSYM431	151	400	AGEN431	LAB	Site-spec Crop Mgt	50.00	4.00	0.00	12.00
Summary for 'Instructor' = Ferguson,Richard B						***(3 detail records)***	*11.70*	*15.60*	*29.90*
Summary for 'Subject Area' = AGEN431 (3 detail records)							*11.70*	*15.60*	*29.90*
Natural Resources									
Name of Instructor: Arkebauer,Timothy John			**Tenure Status: 1 Tenured**			**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
NRES807	001	800	AGRO807	LEC	Plant-water Relation	100.00	2.00	6.00	6.00
Summary for 'Instructor' = Arkebauer,Timothy John						***(1 detail record)***	*2.00*	*6.00*	*6.00*
Name of Instructor: Dunn,Cheryl D			**Tenure Status: 4 Adjunct**			**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
NRES442	150	400	AGRO442	LEC	Wildland Plants	100.00	6.00	18.00	12.00
NRES842	151	800	AGRO442	LAB	Wildland Plants	100.00	1.00	0.00	4.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
NRES842	150	800	AGRO442	LEC	Wildland Plants	100.00	1.00	3.00	2.00
NRES442	151	400	AGRO442	LAB	Wildland Plants	100.00	6.00	0.00	24.00
Summary for 'Instructor' = Dunn,Cheryl D					***(4 detail records)***		*14.00*	*21.00*	*42.00*
Name of Instructor: Ramirez II,Salvador				**Tenure Status: 3 Grad**		**Rank: 7 Grad Rch Asst**		**Full- or Part-Time: 3 Tch Asst**	
NRES103	154	100	AGRI103	RCT	Intro Ag&nat Res Sys	100.00	3.00	0.00	3.00
Summary for 'Instructor' = Ramirez II,Salvador					***(1 detail record)***		*3.00*	*0.00*	*3.00*
Name of Instructor: Simmons,Gregory Scott				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
NRES212	002	200	HORT212	LEC	Landscape Plants I	10.00	0.20	0.60	0.60
Summary for 'Instructor' = Simmons,Gregory Scott					***(1 detail record)***		*0.20*	*0.60*	*0.60*
Name of Instructor: Sutton,Richard K				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
NRES212	002	200	HORT212	LEC	Landscape Plants I	90.00	1.80	5.40	5.40
NRES212	001	200	HORT212	LEC	Landscape Plants I	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Sutton,Richard K					***(2 detail records)***		*2.80*	*8.40*	*8.40*
Name of Instructor: Twidwell Jr,Dirac L				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
NRES844	150	800	AGRO444	LEC	Ecosys Monitor&assmt	100.00	3.00	9.00	9.00
NRES444	150	400	AGRO444	LEC	Ecosys Monitor&assmt	100.00	2.00	6.00	6.00
Summary for 'Instructor' = Twidwell Jr,Dirac L					***(2 detail records)***		*5.00*	*15.00*	*15.00*
Name of Instructor: Yang,Haishun				**Tenure Status: 2 Tenure-Track**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
NRES906	751	900	AGRO906	LAB	Crop Growth & Yield	50.00	0.50	0.00	0.50
NRES906	700	900	AGRO906	LEC	Crop Growth & Yield	90.00	0.90	2.70	2.70
Summary for 'Instructor' = Yang,Haishun					***(2 detail records)***		*1.40*	*2.70*	*3.20*
Summary for 'Subject Area' = AGRO906 (13 detail records)							*28.40*	*53.70*	*78.20*
Nutrition & Health Sciences									
Name of Instructor: Read,Paul E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
NUTR471	951	400	HORT471	LAB	Vines Wines & You	100.00	9.00	0.00	4.56
NUTR471	950	400	HORT471	LEC	Vines Wines & You	100.00	9.00	27.00	27.36
Summary for 'Instructor' = Read,Paul E					***(2 detail records)***		*18.00*	*27.00*	*31.92*
Summary for 'Subject Area' = HORT471 (2 detail records)							*18.00*	*27.00*	*31.92*
Prof Golf Management Program									
Name of Instructor: Amundsen,Keenan L				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
PGAM227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	100.00	17.00	51.00	51.00
Summary for 'Instructor' = Amundsen,Keenan L					***(1 detail record)***		*17.00*	*51.00*	*51.00*
Summary for 'Subject Area' = AGRO227 (1 detail record)							*17.00*	*51.00*	*51.00*
Range Science									

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Name of Instructor: Dunn,Cheryl D				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
RNGE442	150	400	AGRO442	LEC	Wildland Plants	100.00	1.00	3.00	2.00
RNGE442	151	400	AGRO442	LAB	Wildland Plants	100.00	1.00	0.00	4.00
Summary for 'Instructor' = Dunn,Cheryl D					***(2 detail records)***		*2.00*	*3.00*	*6.00*
Name of Instructor: Guretzky,John Andrew				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
RNGE240	152	200	AGRO240	LAB	Forage Crop&rnge Mgt	100.00	2.00	0.00	4.00
RNGE240	150	200	AGRO240	LEC	Forage Crop&rnge Mgt	100.00	2.00	8.00	6.00
Summary for 'Instructor' = Guretzky,John Andrew					***(2 detail records)***		*4.00*	*8.00*	*10.00*
Name of Instructor: Schacht,Walter H				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
RNGE445	001	400	AGRO845	LEC	Livestock Mgt Range	50.00	1.50	4.50	4.50
Summary for 'Instructor' = Schacht,Walter H					***(1 detail record)***		*1.50*	*4.50*	*4.50*
Name of Instructor: Twidwell Jr,Dirac L				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
RNGE444	150	400	AGRO444	LEC	Ecosys Monitor&assmt	100.00	3.00	9.00	9.00
Summary for 'Instructor' = Twidwell Jr,Dirac L					***(1 detail record)***		*3.00*	*9.00*	*9.00*
Summary for 'Subject Area' = AGRO444 (6 detail records)							*10.50*	*24.50*	*29.50*
Soil Science									
Name of Instructor: Blanco,Humberto				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
SOIL269	001	200	AGRO269	LEC	Princ Soil Mgt	100.00	8.00	24.00	24.00
Summary for 'Instructor' = Blanco,Humberto					***(1 detail record)***		*8.00*	*24.00*	*24.00*
Name of Instructor: Kettler,Timothy Alan				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
SOIL153	151	100	AGRO153	LAB	Soil Resources	50.00	4.50	0.00	18.00
SOIL153	150	100	AGRO153	LEC	Soil Resources	50.00	19.50	78.00	19.50
SOIL153	157	100	AGRO153	LAB	Soil Resources	50.00	1.00	0.00	4.00
SOIL153	156	100	AGRO153	LAB	Soil Resources	50.00	2.00	0.00	8.00
SOIL153	154	100	AGRO153	LAB	Soil Resources	50.00	3.50	0.00	14.00
SOIL153	152	100	AGRO153	LAB	Soil Resources	50.00	4.50	0.00	18.00
SOIL153	153	100	AGRO153	LAB	Soil Resources	50.00	2.00	0.00	8.00
Summary for 'Instructor' = Kettler,Timothy Alan					***(7 detail records)***		*37.00*	*78.00*	*89.50*
Name of Instructor: McCallister,Dennis L				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
SOIL153	151	100	AGRO153	LAB	Soil Resources	50.00	4.50	0.00	18.00
SOIL453	001	400	HORT453	LEC	Urban Soil & Mngt	100.00	1.00	3.00	3.00
SOIL153	150	100	AGRO153	LEC	Soil Resources	50.00	19.50	78.00	19.50
SOIL153	153	100	AGRO153	LAB	Soil Resources	50.00	2.00	0.00	8.00
SOIL153	154	100	AGRO153	LAB	Soil Resources	50.00	3.50	0.00	14.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
SOIL153	156	100	AGRO153	LAB	Soil Resources	50.00	2.00	0.00	8.00
SOIL153	157	100	AGRO153	LAB	Soil Resources	50.00	1.00	0.00	4.00
SOIL153	152	100	AGRO153	LAB	Soil Resources	50.00	4.50	0.00	18.00
Summary for 'Instructor' = McCallister,Dennis L					***(8 detail records)***		*38.00*	*81.00*	*92.50*
Name of Instructor: Sindelar,Meghan E			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
SOIL153	155	100	AGRO153	LAB	Soil Resources	100.00	4.00	0.00	16.00
Summary for 'Instructor' = Sindelar,Meghan E					***(1 detail record)***		*4.00*	*0.00*	*16.00*
Summary for 'Subject Area' = AGRO153 (17 detail records)							*87.00*	*183.00*	*222.00*
Turfgrass & Landscape Mngt									
Name of Instructor: Adams,Stacy Ardean			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
TLMT395	951	300	TLMT395	FLD	Career Experience	100.00	20.00	20.00	12.40
Summary for 'Instructor' = Adams,Stacy Ardean					***(1 detail record)***		*20.00*	*20.00*	*12.40*
Name of Instructor: Amundsen,Keenan L			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
TLMT227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	100.00	18.00	54.00	54.00
TLMT327	001	300	TLMT327	LEC	Turfgrass Sci & Mngt	50.00	7.00	21.00	21.00
TLMT229	001	200	TLMT229	LAB	Int:turfgrass Mgt Lab	20.00	2.40	2.40	8.40
Summary for 'Instructor' = Amundsen,Keenan L					***(3 detail records)***		*27.40*	*77.40*	*83.40*
Name of Instructor: Kreuser,William C			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
TLMT427	151	400	TLMT427	LAB	Turfgrass Sys Mngt	100.00	6.00	0.00	36.00
TLMT427	150	400	TLMT427	LEC	Turfgrass Sys Mngt	100.00	6.00	18.00	12.00
Summary for 'Instructor' = Kreuser,William C					***(2 detail records)***		*12.00*	*18.00*	*48.00*
Name of Instructor: Li,Luqi			**Tenure Status: 3 Grad**		**Rank: 7 Grad Rch Asst**		**Full- or Part-Time: 3 Tch Asst**		
TLMT229	001	200	TLMT229	LAB	Int:turfgrass Mgt Lab	40.00	4.80	4.80	16.80
Summary for 'Instructor' = Li,Luqi					***(detail record)***		*4.80*	*4.80*	*16.80*
Name of Instructor: Michael,Darrell James			**Tenure Status: 3 Grad**		**Rank: 7 Grad Rch Asst**		**Full- or Part-Time: 3 Tch Asst**		
TLMT229	001	200	TLMT229	LAB	Int:turfgrass Mgt Lab	40.00	4.80	4.80	16.80
Summary for 'Instructor' = Michael,Darrell James					***(1 detail record)***		*4.80*	*4.80*	*16.80*
Name of Instructor: Obear,Glen Robert			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
TLMT327	001	300	TLMT327	LEC	Turfgrass Sci & Mngt	50.00	7.00	21.00	21.00
Summary for 'Instructor' = Obear,Glen Robert					***(1 detail record)***		*7.00*	*21.00*	*21.00*
Name of Instructor: Streich,Anne Marie			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
TLMT127	951	100	HORT127	LEC	Turfgrass&landscp Mgt	100.00	12.00	12.00	9.92
Summary for 'Instructor' = Streich,Anne Marie					***(1 detail record)***		*12.00*	*12.00*	*9.92*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Name of Instructor: Todd,Kim Anne			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
TLMT228	150	200	HORT228	LEC	Intro Landscape Mngt	100.00	14.00	42.00	28.00
TLMT228	151	200	HORT228	LAB	Intro Landscape Mngt	100.00	14.00	0.00	42.00
Summary for 'Instructor' = Todd,Kim Anne					***(2 detail records)***		*28.00*	*42.00*	*70.00*
Summary for 'Subject Area' = HORT228 (12 detail records)							*116.00*	*200.00*	*278.32*
Grand Total of Courses taught by Faculty in Agronomy and Horticulture							***2,931.42***	***5,991.31***	***7,140.61***

Note: Sorted by instructor and then subject area. This listing includes courses such as labs which may not have credit hours attached to them.

Student Credit Hours/Contact Hours by Department, Subject and Faculty Teaching the Course
Fall 2016 (20171)
College: College of Agri Sci and Natl Resources *Department: Agronomy and Horticulture*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Agribusiness									
Name of Instructor: Lambe,David Paul			**Tenure Status: 4 Adjunct**			**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
ABUS488	700	400	ABUS488	LEC	Bus Mgt In Ag Entprs	97.00	1.94	5.82	5.82
ABUS388	791	300	ABUS388	LEC	Agribusiness Entrshp	100.00	3.00	9.00	5.04
Summary for 'Instructor' = Lambe,David Paul						***(2 detail records)***	*4.94*	*14.82*	*10.86*
Name of Instructor: Sousek,Kara Eli			**Tenure Status: 4 Adjunct**			**Rank: 8 Undergrad Tch Asst**		**Full- or Part-Time: 2 Part-time**	
ABUS488	700	400	ABUS488	LEC	Bus Mgt In Ag Entprs	3.00	0.06	0.18	0.18
Summary for 'Instructor' = Sousek,Kara Eli						***(1 detail record)***	*0.06*	*0.18*	*0.18*
Summary for 'Subject Area' = ABUS488 (3 detail records)							*5.00*	*15.00*	*11.04*
Agribusiness Entrepreneurship									
Name of Instructor: Lambe,David Paul			**Tenure Status: 4 Adjunct**			**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
EAEP488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	96.00	1.92	5.76	5.76
EAEP275	791	200	AECN275	LEC	Agribus Entr Finance	100.00	7.00	21.00	10.08
EAEP275	951	200	AECN275	LEC	Agribus Entr Finance	100.00	7.00	21.00	13.44
EAEP388	791	300	ABUS388	LEC	Agribusiness Entrshp	100.00	3.00	9.00	5.04
EAEP388	951	300	AGRO388	LEC	Agribusiness Entrshp	100.00	12.00	36.00	26.88
EAEP488	700	400	ABUS488	LEC	Bus Mgt In Ag Entprs	97.00	6.79	20.37	20.37
EAEP496	001	400	EAEP496	IND	Independent Study	100.00	1.00	6.00	6.00
EAEP888	700	800	ABUS488	LEC	Bus Mgt In Ag Entprs	97.00	0.97	2.91	2.91
Summary for 'Instructor' = Lambe,David Paul						***(8 detail records)***	*39.68*	*122.04*	*90.48*
Name of Instructor: Sousek,Kara Eli			**Tenure Status: 4 Adjunct**			**Rank: 8 Undergrad Tch Asst**		**Full- or Part-Time: 2 Part-time**	
EAEP488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	4.00	0.08	0.24	0.24
EAEP488	700	400	ABUS488	LEC	Bus Mgt In Ag Entprs	3.00	0.21	0.63	0.63
EAEP888	700	800	ABUS488	LEC	Bus Mgt In Ag Entprs	3.00	0.03	0.09	0.09
Summary for 'Instructor' = Sousek,Kara Eli						***(3 detail records)***	*0.32*	*0.96*	*0.96*
Summary for 'Subject Area' = ABUS488 (11 detail records)							*40.00*	*123.00*	*91.44*
Agricultural Economics (AECN)									
Name of Instructor: Lambe,David Paul			**Tenure Status: 4 Adjunct**			**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AECN275	791	200	AECN275	LEC	Agribus Entr Finance	100.00	19.00	57.00	28.12
AECN275	951	200	AECN275	LEC	Agribus Entr Finance	100.00	11.00	33.00	21.12

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Lambe,David Paul						***(2 detail records)***	*30.00*	*90.00*	*49.24*
Summary for 'Subject Area' = AECN275 (2 detail records)							*30.00*	*90.00*	*49.24*
Agricultural Engineering									
Name of Instructor: Ferguson,Richard B				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGEN431	150	400	AGEN431	LEC	Site-spec Crop Mgt	50.00	2.50	7.50	5.00
AGEN431	152	400	AGEN431	LAB	Site-spec Crop Mgt	50.00	1.00	0.00	3.00
AGEN431	153	400	AGEN431	LAB	Site-spec Crop Mgt	50.00	1.50	0.00	3.00
Summary for 'Instructor' = Ferguson,Richard B						***(3 detail records)***	*5.00*	*7.50*	*11.00*
Summary for 'Subject Area' = AGEN431 (3 detail records)							*5.00*	*7.50*	*11.00*
Agricultural Sciences (AGRI)									
Name of Instructor: Sandall,Leah Lynn				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRI115	700	100	AGRI115	LEC	Biotch:food Hlth&env	100.00	26.00	78.00	78.00
AGRI115	800	100	AGRI115	LEC	Biotch:food Hlth&env	100.00	6.00	18.00	18.00
Summary for 'Instructor' = Sandall,Leah Lynn						***(2 detail records)***	*32.00*	*96.00*	*96.00*
Summary for 'Subject Area' = AGRI115 (2 detail records)							*32.00*	*96.00*	*96.00*
Agronomy (AGRO)									
Name of Instructor: Amundsen,Keenan L				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO496	007	400	AGRO496	IND	Independent Study	100.00	2.00	4.00	6.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	2.11	0.61	2.00	2.00
AGRO227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	94.00	1.88	5.64	5.64
AGRO896	007	800	AGRO496	IND	Independent Study	100.00	15.00	45.00	45.00
Summary for 'Instructor' = Amundsen,Keenan L						***(4 detail records)***	*19.49*	*56.64*	*58.64*
Name of Instructor: Arkebauer,Timothy John				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO807	001	800	AGRO807	LEC	Plant-water Relation	100.00	23.00	69.00	69.00
Summary for 'Instructor' = Arkebauer,Timothy John						***(1 detail record)***	*23.00*	*69.00*	*69.00*
Name of Instructor: Baenziger,Peter Stephen				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO894	700	800	AGRO894	IND	Grad Degree Proj Cr	20.00	1.00	2.00	2.00
AGRO815B	951	800	AGRO815B	LEC	Germplasm & Genes	100.00	6.00	6.00	5.28
AGRO815B	792	800	AGRO815B	LEC	Germplasm & Genes	100.00	10.00	10.00	2.93
AGRO815A	951	800	AGRO815A	LEC	Self Pollinated Crop	100.00	5.00	5.00	4.00
AGRO815A	792	800	AGRO815A	LEC	Self Pollinated Crop	100.00	10.00	10.00	2.67
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	10.95	7.56	34.50	34.50
AGRO899	001	800	AGRO899	IND	Masters Thesis	7.37	2.14	7.00	7.00
Summary for 'Instructor' = Baenziger,Peter Stephen						***(7 detail records)***	*41.69*	*74.50*	*58.38*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Name of Instructor: Barnes,Ethann				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO132	002	100	AGRO132	LAB	Agronmc Plant Sci Lab	25.00	5.25	5.25	10.50
AGRO132	001	100	AGRO132	LAB	Agronmc Plant Sci Lab	25.00	5.25	5.25	10.50
Summary for 'Instructor' = Barnes,Ethann					***(2 detail records)***		*10.50*	*10.50*	*21.00*
Name of Instructor: Blanco,Humberto				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.95	0.66	3.00	3.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	3.16	0.92	3.00	3.00
AGRO479	001	400	AGRO479	LEC	Applied Soil Physics	100.00	3.00	9.00	12.00
AGRO879	001	800	AGRO479	LEC	Applied Soil Physics	100.00	10.00	30.00	40.00
AGRO269	001	200	AGRO269	LEC	Princ Soil Mgt	100.00	73.00	219.00	219.00
Summary for 'Instructor' = Blanco,Humberto					***(5 detail records)***		*87.57*	*264.00*	*277.00*
Name of Instructor: Clemente,Thomas E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO411	791	400	AGRO411	LEC	Crop Genetic Engr	50.00	3.00	6.00	2.32
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.75	1.20	5.50	5.50
AGRO811	791	800	AGRO411	LEC	Crop Genetic Engr	50.00	9.00	18.00	6.96
Summary for 'Instructor' = Clemente,Thomas E					***(3 detail records)***		*13.20*	*29.50*	*14.78*
Name of Instructor: Drijber,Rhae A				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.59	1.10	5.00	5.00
Summary for 'Instructor' = Drijber,Rhae A					***(1 detail record)***		*1.10*	*5.00*	*5.00*
Name of Instructor: Dunn,Cheryl D				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO242	001	200	AGRO242	LEC	N Amer Wild Plants	100.00	1.00	1.00	1.00
AGRO442	150	400	AGRO442	LEC	Wildland Plants	100.00	4.00	12.00	8.00
AGRO442	151	400	AGRO442	LAB	Wildland Plants	100.00	4.00	0.00	16.00
AGRO842	151	800	AGRO442	LAB	Wildland Plants	100.00	1.00	0.00	4.00
AGRO842	150	800	AGRO442	LEC	Wildland Plants	100.00	1.00	3.00	2.00
Summary for 'Instructor' = Dunn,Cheryl D					***(5 detail records)***		*11.00*	*16.00*	*31.00*
Name of Instructor: Dweikat,Ismail M				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO992	001	900	AGRO992	LEC	General Seminar	100.00	14.00	14.00	14.00
AGRO991	002	900	AGRO991	LEC	Smnr Presentatn&eval	100.00	9.00	9.00	9.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.32	0.22	1.00	1.00
Summary for 'Instructor' = Dweikat,Ismail M					***(3 detail records)***		*23.22*	*24.00*	*24.00*
Name of Instructor: Elmore,Roger W				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.90	1.31	6.00	6.00
Summary for 'Instructor' = Elmore,Roger W					***(1 detail record)***		*1.31*	*6.00*	*6.00*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Name of Instructor: Ferguson,Richard B				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO431	153	400	AGEN431	LAB	Site-spec Crop Mgt	50.00	12.00	0.00	24.00
AGRO431	152	400	AGEN431	LAB	Site-spec Crop Mgt	50.00	10.00	0.00	30.00
AGRO431	151	400	AGRO431	LAB	Site-spec Crop Mgt	50.00	10.50	0.00	31.50
AGRO431	150	400	AGEN431	LEC	Site-spec Crop Mgt	50.00	32.50	97.50	65.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	2.22	1.53	7.00	7.00
Summary for 'Instructor' = Ferguson,Richard B					***(5 detail records)***		*66.53*	*104.50*	*157.50*
Name of Instructor: Gaussoin,Roch E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.90	1.31	6.00	6.00
Summary for 'Instructor' = Gaussoin,Roch E					***(1 detail record)***		*1.31*	*6.00*	*6.00*
Name of Instructor: Graef,George L				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO295	001	200	AGRO295	FLD	Internship In Agro	100.00	13.00	14.00	14.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	5.71	3.94	18.00	18.00
Summary for 'Instructor' = Graef,George L					***(2 detail records)***		*16.94*	*32.00*	*32.00*
Name of Instructor: Grassini,Patricio				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	3.16	0.92	3.00	3.00
AGRO896	001	800	AGRO496	IND	Independent Study	37.00	1.48	4.07	4.07
AGRO496	001	400	AGRO496	IND	Independent Study	37.00	0.74	1.11	1.11
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.63	0.44	2.00	2.00
Summary for 'Instructor' = Grassini,Patricio					***(4 detail records)***		*3.57*	*10.18*	*10.18*
Name of Instructor: Graybosch,Robert A				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.43	0.99	4.50	4.50
Summary for 'Instructor' = Graybosch,Robert A					***(1 detail record)***		*0.99*	*4.50*	*4.50*
Name of Instructor: Guretzky,John Andrew				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO240	150	200	AGRO240	LEC	Forage Crop&pstr Mgt	100.00	59.00	177.00	118.00
AGRO496	001	400	AGRO496	IND	Independent Study	21.00	0.42	0.63	0.63
AGRO899	001	800	AGRO899	IND	Masters Thesis	2.11	0.61	2.00	2.00
AGRO240	151	200	AGRO240	LAB	Forage Crop&pstr Mgt	100.00	29.00	0.00	58.00
AGRO240	153	200	AGRO240	LAB	Forage Crop&pstr Mgt	100.00	30.00	0.00	60.00
AGRO896	001	800	AGRO496	IND	Independent Study	21.00	0.84	2.31	2.31
Summary for 'Instructor' = Guretzky,John Andrew					***(6 detail records)***		*119.87*	*181.94*	*240.94*
Name of Instructor: Han,Chenchou				**Tenure Status: 3 Grad**		**Rank: 7 Grad Rch Asst**		**Full- or Part-Time: 3 Tch Asst**	
AGRO906	700	900	AGRO906	LEC	Crop Growth & Yield	7.00	0.49	1.47	1.47
Summary for 'Instructor' = Han,Chenchou					***(1 detail record)***		*0.49*	*1.47*	*1.47*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Name of Instructor: Holding,David R				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-ti me**	
AGRO131	003	100	AGRO131	LEC	Plant Science	100.00	36.00	108.00	108.00
Summary for 'Instructor' = Holding,David R					***(1 detail record)***		*36.00*	*108.00*	*108.00*
Name of Instructor: Hyten Jr,David L				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO896	004	800	AGRO896	IND	Independent Study	100.00	13.00	39.00	39.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	2.54	1.75	8.00	8.00
AGRO201	001	200	AGRO201	LEC	Prep Agron Career	50.00	15.50	15.50	31.00
Summary for 'Instructor' = Hyten Jr,David L					***(3 detail records)***		*30.25*	*62.50*	*78.00*
Name of Instructor: Jhala,Amitkumar				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	2.86	1.97	9.00	9.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	4.21	1.22	4.00	4.00
Summary for 'Instructor' = Jhala,Amitkumar					***(2 detail records)***		*3.19*	*13.00*	*13.00*
Name of Instructor: Keaschall,Joseph W				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
AGRO816A	791	800	AGRO816A	LEC	Heterosis	100.00	10.00	10.00	2.93
AGRO815D	951	800	AGRO815D	LEC	Cross Polinated Crop	100.00	3.00	3.00	2.64
AGRO815D	792	800	AGRO815D	LEC	Cross Polinated Crop	100.00	9.00	9.00	2.64
AGRO816A	951	800	AGRO816A	LEC	Heterosis	100.00	2.00	2.00	1.76
Summary for 'Instructor' = Keaschall,Joseph W					***(4 detail records)***		*24.00*	*24.00*	*9.97*
Name of Instructor: Keck,Mark A				**Tenure Status: 3 Grad**		**Rank: 6 Grad Tch Asst**		**Full- or Part-Time: 3 Tch Asst**	
AGRO132	005	100	AGRO132	LAB	Agronmc Plant Sci Lab	25.00	5.50	5.50	11.00
AGRO132	006	100	AGRO132	LAB	Agronmc Plant Sci Lab	25.00	4.75	4.75	9.50
Summary for 'Instructor' = Keck,Mark A					***(2 detail records)***		*10.25*	*10.25*	*20.50*
Name of Instructor: Kettler,Timothy Alan				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO153	154	100	AGRO153	LAB	Soil Resources	33.33	3.00	0.00	12.00
AGRO153	150	100	AGRO153	LEC	Soil Resources	33.33	32.33	129.33	32.33
AGRO153	151	100	AGRO153	LAB	Soil Resources	33.33	4.67	0.00	18.67
AGRO153	155	100	AGRO153	LAB	Soil Resources	33.33	6.67	0.00	26.67
AGRO153	152	100	AGRO153	LAB	Soil Resources	33.33	5.33	0.00	21.33
AGRO153	156	100	AGRO153	LAB	Soil Resources	33.33	3.67	0.00	14.67
AGRO153	153	100	AGRO153	LAB	Soil Resources	33.33	4.00	0.00	16.00
AGRO153	157	100	AGRO153	LAB	Soil Resources	33.33	5.00	0.00	20.00
Summary for 'Instructor' = Kettler,Timothy Alan					***(8 detail records)***		*64.67*	*129.33*	*161.67*
Name of Instructor: Knezevic,Stevan				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	2.86	1.97	9.00	9.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Knezevic,Stevan					***(1 detail record)***		*1.97*	*9.00*	*9.00*
Name of Instructor: Kreuser,William C				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO496	001	400	AGRO496	IND	Independent Study	14.00	0.28	0.42	0.42
AGRO896	001	800	AGRO496	IND	Independent Study	14.00	0.56	1.54	1.54
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.32	0.22	1.00	1.00
Summary for 'Instructor' = Kreuser,William C					***(3 detail records)***		*1.06*	*2.96*	*2.96*
Name of Instructor: Kruger,Greg R				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	4.21	1.22	4.00	4.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	6.19	4.27	19.50	19.50
Summary for 'Instructor' = Kruger,Greg R					***(2 detail records)***		*5.49*	*23.50*	*23.50*
Name of Instructor: Lambe,David Paul				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO888	700	800	ABUS488	LEC	Bus Mgt In Ag Entprs	97.00	0.97	2.91	2.91
AGRO488	700	400	ABUS488	LEC	Bus Mgt In Ag Entprs	97.00	5.82	17.46	17.46
AGRO388	951	300	AGRO388	LEC	Agribusiness Entrshp	100.00	1.00	3.00	2.24
AGRO488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	96.00	4.80	14.40	14.40
AGRO275	791	200	AECN275	LEC	Agribus Entr Finance	100.00	2.00	6.00	2.96
AGRO275	951	200	AECN275	LEC	Agribus Entr Finance	100.00	2.00	6.00	8.11
Summary for 'Instructor' = Lambe,David Paul					***(6 detail records)***		*16.59*	*49.77*	*48.08*
Name of Instructor: Lee,Donald J				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO131	151	100	AGRO131	RCT	Plant Science	50.00	12.00	0.00	24.00
AGRO131	700	100	AGRO131	LEC	Plant Science	50.00	25.00	75.00	75.00
AGRO131	156	100	AGRO131	RCT	Plant Science	100.00	17.00	0.00	34.00
AGRO131	154	100	AGRO131	RCT	Plant Science	50.00	6.50	0.00	13.00
AGRO131	152	100	AGRO131	RCT	Plant Science	50.00	4.00	0.00	8.00
AGRO131	155	100	AGRO131	RCT	Plant Science	50.00	12.50	0.00	25.00
AGRO896	702	800	AGRO896	IND	Independent Study	100.00	3.00	3.00	3.00
AGRO896	701	800	AGRO896	IND	Independent Study	100.00	3.00	3.00	3.00
AGRO131	150	100	AGRO131	LEC	Plant Science	100.00	111.00	333.00	222.00
AGRO894	700	800	AGRO894	IND	Grad Degree Proj Cr	30.00	1.50	3.00	3.00
AGRO131	153	100	AGRO131	RCT	Plant Science	50.00	12.00	0.00	24.00
AGRO315	153	300	AGRO315	LAB	Genetics	100.00	31.00	0.00	62.00
AGRO315	001	300	AGRO315	LEC	Genetics	100.00	21.00	84.00	42.00
AGRO315	150	300	AGRO315	LEC	Genetics	100.00	81.00	324.00	243.00
AGRO315	152	300	AGRO315	LAB	Genetics	100.00	30.00	0.00	60.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO315	154	300	AGRO315	LAB	Genetics	100.00	20.00	0.00	40.00
AGRO131	800	100	AGRO131	LEC	Plant Science	50.00	4.00	12.00	12.00
Summary for 'Instructor' = Lee,Donald J					***(17 detail records)***		*394.50*	*837.00*	*893.00*
Name of Instructor: Lindquist,John Leroy				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	8.42	2.44	8.00	8.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.32	0.22	1.00	1.00
Summary for 'Instructor' = Lindquist,John Leroy					***(2 detail records)***		*2.66*	*9.00*	*9.00*
Name of Instructor: Mackenzie,Sally				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	6.32	1.83	6.00	6.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	6.98	4.82	22.00	22.00
Summary for 'Instructor' = Mackenzie,Sally					***(2 detail records)***		*6.65*	*28.00*	*28.00*
Name of Instructor: Mamo,Martha				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO896	001	800	AGRO496	IND	Independent Study	7.00	0.28	0.77	0.77
AGRO496	001	400	AGRO496	IND	Independent Study	7.00	0.14	0.21	0.21
Summary for 'Instructor' = Mamo,Martha					***(2 detail records)***		*0.42*	*0.98*	*0.98*
Name of Instructor: Mason,Stephen C				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO405	001	400	AGRO405	LEC	Crop Mgt Strategies	100.00	24.00	72.00	72.00
Summary for 'Instructor' = Mason,Stephen C					***(1 detail record)***		*24.00*	*72.00*	*72.00*
Name of Instructor: McCallister,Dennis L				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO153	154	100	AGRO153	LAB	Soil Resources	33.33	3.00	0.00	12.00
AGRO153	155	100	AGRO153	LAB	Soil Resources	33.33	6.67	0.00	26.67
AGRO153	150	100	AGRO153	LEC	Soil Resources	33.33	32.33	129.33	32.33
AGRO153	156	100	AGRO153	LAB	Soil Resources	33.33	3.67	0.00	14.67
AGRO153	157	100	AGRO153	LAB	Soil Resources	33.33	5.00	0.00	20.00
AGRO153	151	100	AGRO153	LAB	Soil Resources	33.33	4.67	0.00	18.67
AGRO201	001	200	AGRO201	LEC	Prep Agron Career	50.00	15.50	15.50	31.00
AGRO153	153	100	AGRO153	LAB	Soil Resources	33.33	4.00	0.00	16.00
AGRO153	152	100	AGRO153	LAB	Soil Resources	33.33	5.33	0.00	21.33
Summary for 'Instructor' = McCallister,Dennis L					***(9 detail records)***		*80.17*	*144.83*	*192.67*
Name of Instructor: Paparozzi,Ellen T				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO92	951	0	AGRO92	LEC	Plant Bio Port&assmt	100.00	6.00	0.00	1.44
Summary for 'Instructor' = Paparozzi,Ellen T					***(1 detail record)***		*6.00*	*0.00*	*1.44*
Name of Instructor: Read,Paul E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.90	1.31	6.00	6.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Read,Paul E					***(1 detail record)***		*1.31*	*6.00*	*6.00*
Name of Instructor: Redfearn,Daren Dean				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	1.05	0.31	1.00	1.00
Summary for 'Instructor' = Redfearn,Daren Dean					***(1 detail record)***		*0.31*	*1.00*	*1.00*
Name of Instructor: Rodriguez,Oscar R				**Tenure Status: 4 Adjunct**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	700	800	AGRO899	IND	Masters Thesis	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Rodriguez,Oscar R					***(1 detail record)***		*1.00*	*3.00*	*3.00*
Name of Instructor: Sandall,Leah Lynn				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO811	791	800	AGRO411	LEC	Crop Genetic Engr	50.00	9.00	18.00	6.96
AGRO411	791	400	AGRO411	LEC	Crop Genetic Engr	50.00	3.00	6.00	2.32
Summary for 'Instructor' = Sandall,Leah Lynn					***(2 detail records)***		*12.00*	*24.00*	*9.28*
Name of Instructor: Schacht,Walter H				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO896	700	800	AGRO896	IND	Independent Study	33.33	0.67	1.00	1.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	11.05	3.21	10.50	10.50
AGRO845	001	800	AGRO445	LEC	Livestock Mgt Range	49.00	0.98	2.94	2.94
AGRO445	001	400	AGRO445	LEC	Livestock Mgt Range	49.00	1.47	4.41	4.41
Summary for 'Instructor' = Schacht,Walter H					***(4 detail records)***		*6.32*	*18.85*	*18.85*
Name of Instructor: Schachtman,Daniel P				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.32	0.22	1.00	1.00
Summary for 'Instructor' = Schachtman,Daniel P					***(1 detail record)***		*0.22*	*1.00*	*1.00*
Name of Instructor: Schnable,James C				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	3.49	2.41	11.00	11.00
Summary for 'Instructor' = Schnable,James C					***(1 detail record)***		*2.41*	*11.00*	*11.00*
Name of Instructor: Shapiro,Charles Alan				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO896	700	800	AGRO896	IND	Independent Study	66.67	1.33	2.00	2.00
AGRO894	700	800	AGRO894	IND	Grad Degree Proj Cr	30.00	1.50	3.00	3.00
Summary for 'Instructor' = Shapiro,Charles Alan					***(2 detail records)***		*2.83*	*5.00*	*5.00*
Name of Instructor: Sindelar,Meghan E				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO132	005	100	AGRO132	LAB	Agronmc Plant Sci Lab	75.00	16.50	16.50	33.00
AGRO153	156	100	AGRO153	LAB	Soil Resources	33.33	3.67	0.00	14.67
AGRO153	155	100	AGRO153	LAB	Soil Resources	33.33	6.67	0.00	26.67
AGRO153	154	100	AGRO153	LAB	Soil Resources	33.33	3.00	0.00	12.00
AGRO153	153	100	AGRO153	LAB	Soil Resources	33.33	4.00	0.00	16.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
AGRO153	152	100	AGRO153	LAB	Soil Resources	33.33	5.33	0.00	21.33
AGRO153	150	100	AGRO153	LEC	Soil Resources	33.33	32.33	129.33	32.33
AGRO153	157	100	AGRO153	LAB	Soil Resources	33.33	5.00	0.00	20.00
AGRO132	006	100	AGRO132	LAB	Agronmc Plant Sci Lab	75.00	14.25	14.25	28.50
AGRO153	151	100	AGRO153	LAB	Soil Resources	33.33	4.67	0.00	18.67
AGRO132	004	100	AGRO132	LAB	Agronmc Plant Sci Lab	75.00	15.00	15.00	30.00
AGRO132	003	100	AGRO132	LAB	Agronmc Plant Sci Lab	75.00	15.00	15.00	30.00
AGRO132	002	100	AGRO132	LAB	Agronmc Plant Sci Lab	75.00	15.75	15.75	31.50
AGRO132	001	100	AGRO132	LAB	Agronmc Plant Sci Lab	75.00	15.75	15.75	31.50
AGRO132	007	100	AGRO132	LAB	Agronmc Plant Sci Lab	75.00	18.00	18.00	36.00
Summary for 'Instructor' = Sindelar,Meghan E					***(15 detail records)***		*174.92*	*239.58*	*382.17*
Name of Instructor: Sousek,Kara Eli			**Tenure Status: 4 Adjunct**		**Rank: 8 Undergrad Tch Asst**		**Full- or Part-Time: 2 Part-time**		
AGRO408	001	400	AGRO408	LEC	Microclim-biol Envir	2.00	0.02	0.06	0.06
AGRO429A	001	400	AGRO429A	LEC	Food Security:global	6.00	0.06	0.18	0.18
AGRO888	700	800	ABUS488	LEC	Bus Mgt In Ag Entprs	3.00	0.03	0.09	0.09
AGRO488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	4.00	0.20	0.60	0.60
AGRO488	700	400	ABUS488	LEC	Bus Mgt In Ag Entprs	3.00	0.18	0.54	0.54
AGRO808	001	800	AGRO408	LEC	Microclim-biol Envir	2.00	0.10	0.30	0.30
Summary for 'Instructor' = Sousek,Kara Eli					***(6 detail records)***		*0.59*	*1.77*	*1.77*
Name of Instructor: Streich,Anne Marie			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
AGRO131	700	100	AGRO131	LEC	Plant Science	50.00	25.00	75.00	75.00
AGRO131	800	100	AGRO131	LEC	Plant Science	50.00	4.00	12.00	12.00
Summary for 'Instructor' = Streich,Anne Marie					***(2 detail records)***		*29.00*	*87.00*	*87.00*
Name of Instructor: Tatineni,Satyanarayana			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**		
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	1.27	0.88	4.00	4.00
Summary for 'Instructor' = Tatineni,Satyanarayana					***(1 detail record)***		*0.88*	*4.00*	*4.00*
Name of Instructor: Todd,Kim Anne			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
AGRO228	151	200	AGRO228	LAB	Intro Landscape Mngt	100.00	1.00	0.00	3.00
AGRO894	700	800	AGRO894	IND	Grad Degree Proj Cr	10.00	0.50	1.00	1.00
AGRO228	150	200	AGRO228	LEC	Intro Landscape Mngt	100.00	1.00	3.00	2.00
Summary for 'Instructor' = Todd,Kim Anne					***(3 detail records)***		*2.50*	*4.00*	*6.00*
Name of Instructor: Troupe,Grace Christian			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**		
AGRO315	700	300	AGRO315	LEC	Genetics	100.00	41.00	164.00	164.00
Summary for 'Instructor' = Troupe,Grace Christian					***(1 detail record)***		*41.00*	*164.00*	*164.00*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Name of Instructor: Twidwell Jr,Dirac L				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	2.54	1.75	8.00	8.00
AGRO844	150	800	AGRO444	LEC	Ecosys Monitor&assmt	100.00	2.00	6.00	6.00
AGRO899	001	800	AGRO899	IND	Masters Thesis	9.47	2.75	9.00	9.00
AGRO496	003	400	AGRO496	IND	Independent Study	100.00	2.00	4.00	4.00
AGRO444	150	400	AGRO444	LEC	Ecosys Monitor&assmt	100.00	3.00	9.00	9.00
Summary for 'Instructor' = Twidwell Jr,Dirac L						***(5 detail records)***	*11.50*	*36.00*	*36.00*
Name of Instructor: Vavala,Robert Vincent				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
AGRO107	700	100	AGRO107	LEC	Invasive Plant:impact	100.00	48.00	144.00	144.00
AGRO107	800	100	AGRO107	LEC	Invasive Plant:impact	100.00	1.00	3.00	3.00
AGRO131	001	100	AGRO131	LEC	Plant Science	100.00	20.00	60.00	40.00
AGRO131	151	100	AGRO131	RCT	Plant Science	50.00	12.00	0.00	24.00
AGRO131	152	100	AGRO131	RCT	Plant Science	50.00	4.00	0.00	8.00
AGRO131	154	100	AGRO131	RCT	Plant Science	50.00	6.50	0.00	13.00
AGRO131	155	100	AGRO131	RCT	Plant Science	50.00	12.50	0.00	25.00
AGRO131	153	100	AGRO131	RCT	Plant Science	50.00	12.00	0.00	24.00
Summary for 'Instructor' = Vavala,Robert Vincent						***(8 detail records)***	*116.00*	*207.00*	*281.00*
Name of Instructor: Volesky,Jerry D				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO899	001	800	AGRO899	IND	Masters Thesis	0.53	0.15	0.50	0.50
Summary for 'Instructor' = Volesky,Jerry D						***(1 detail record)***	*0.15*	*0.50*	*0.50*
Name of Instructor: Walia,Harkamal				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	3.33	2.30	10.50	10.50
Summary for 'Instructor' = Walia,Harkamal						***(1 detail record)***	*2.30*	*10.50*	*10.50*
Name of Instructor: Wortmann,Charles Stephen				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO894	700	800	AGRO894	IND	Grad Degree Proj Cr	10.00	0.50	1.00	1.00
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	5.40	3.72	17.00	17.00
Summary for 'Instructor' = Wortmann,Charles Stephen						***(2 detail records)***	*4.22*	*18.00*	*18.00*
Name of Instructor: Xu,Zhuqing				**Tenure Status: 4 Adjunct**		**Rank: 8 Undergrad Tch Asst**		**Full- or Part-Time: 2 Part-time**	
AGRO132	003	100	AGRO132	LAB	Agronmc Plant Sci Lab	25.00	5.00	5.00	10.00
Summary for 'Instructor' = Xu,Zhuqing						***(1 detail record)***	*5.00*	*5.00*	*10.00*
Name of Instructor: Yang,Haishun				**Tenure Status: 2 Tenure-Track**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
AGRO906	700	900	AGRO906	LEC	Crop Growth & Yield	93.00	6.51	19.53	19.53
AGRO999	001	900	AGRO999	IND	Doctoral Dissertatn	0.32	0.22	1.00	1.00
Summary for 'Instructor' = Yang,Haishun						***(2 detail records)***	*6.73*	*20.53*	*20.53*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Subject Area' = AGRO999 (179 detail records)							*1,570.87*	*3,287.59*	*3,765.75*
Animal Science									
Name of Instructor: Schacht,Walter H				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
ASCI851	001	800	AGRO445	LEC	Livestock Mgt Range	49.00	0.49	1.47	1.47
ASCI451	001	400	AGRO445	LEC	Livestock Mgt Range	49.00	5.39	16.17	16.17
Summary for 'Instructor' = Schacht,Walter H					***(2 detail records)***		*5.88*	*17.64*	*17.64*
Name of Instructor: Volesky,Jerry D				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
ASCI896	001	800	ASCI496	IND	Indep Study Ani Sci	55.00	1.65	4.95	4.95
ASCI496	001	400	ASCI496	IND	Indep Study Ani Sci	55.00	0.55	1.10	1.10
Summary for 'Instructor' = Volesky,Jerry D					***(2 detail records)***		*2.20*	*6.05*	*6.05*
Summary for 'Subject Area' = ASCI496 (4 detail records)							*8.08*	*23.69*	*23.69*
Architecture									
Name of Instructor: Todd,Kim Anne				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
ARCH467	001	400	ARCH467	LEC	Planting Design	100.00	1.00	4.00	6.00
ARCH567	001	500	ARCH467	LEC	Planting Design	100.00	4.00	16.00	24.00
Summary for 'Instructor' = Todd,Kim Anne					***(2 detail records)***		*5.00*	*20.00*	*30.00*
Summary for 'Subject Area' = ARCH467 (2 detail records)							*5.00*	*20.00*	*30.00*
Entomology									
Name of Instructor: Baenziger,Peter Stephen				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
ENTO815B	792	800	AGRO815B	LEC	Germplasm & Genes	100.00	2.00	2.00	0.59
ENTO815A	792	800	AGRO815A	LEC	Self Pollinated Crop	100.00	3.00	3.00	0.80
Summary for 'Instructor' = Baenziger,Peter Stephen					***(2 detail records)***		*5.00*	*5.00*	*1.39*
Name of Instructor: Keaschall,Joseph W				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
ENTO815D	792	800	AGRO815D	LEC	Cross Polinated Crop	100.00	1.00	1.00	0.29
Summary for 'Instructor' = Keaschall,Joseph W					***(1 detail record)***		*1.00*	*1.00*	*0.29*
Summary for 'Subject Area' = AGRO815D (3 detail records)							*6.00*	*6.00*	*1.68*
Entrepreneurship									
Name of Instructor: Lambe,David Paul				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
ENTR388	791	300	ABUS388	LEC	Agribusiness Entrshp	100.00	3.00	9.00	5.04
ENTR488	700	400	ABUS488	LEC	Bus Mgt In Ag Entprs	97.00	1.94	5.82	5.82
ENTR488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	96.00	0.96	2.88	2.88
ENTR275	791	200	AECN275	LEC	Agribus Entr Finance	100.00	2.00	6.00	2.88
ENTR388	951	300	AGRO388	LEC	Agribusiness Entrshp	100.00	5.00	15.00	11.20
Summary for 'Instructor' = Lambe,David Paul					***(5 detail records)***		*12.90*	*38.70*	*27.82*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Name of Instructor: Sousek,Kara Eli			**Tenure Status: 4 Adjunct**		**Rank: 8 Undergrad Tch Asst**		**Full- or Part-Time: 2 Part-time**		
ENTR488	700	400	ABUS488	LEC	Bus Mgt In Ag Entprs	3.00	0.06	0.18	0.18
ENTR488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	4.00	0.04	0.12	0.12
Summary for 'Instructor' = Sousek,Kara Eli					***(2 detail records)***		*0.10*	*0.30*	*0.30*
Summary for 'Subject Area' = AGRO488 (7 detail records)							*13.00*	*39.00*	*28.12*
Geography									
Name of Instructor: Simmons, Gregory			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**		
GEOG200	001	200	GEOG200	LEC	Landscape&envir Appr	3.00	0.12	0.36	0.36
Summary for 'Instructor' = Simmons, Gregory					***(1 detail record)***		*0.12*	*0.36*	*0.36*
Name of Instructor: Sutton,Richard K			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
GEOG200	001	200	GEOG200	LEC	Landscape&envir Appr	97.00	3.88	11.64	11.64
Summary for 'Instructor' = Sutton,Richard K					***(1 detail record)***		*3.88*	*11.64*	*11.64*
Summary for 'Subject Area' = GEOG200 (2 detail records)							*4.00*	*12.00*	*12.00*
Grassland Studies									
Name of Instructor: Schacht,Walter H			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
GRAS490	001	400	GRAS490	FLD	Internship Experienc	50.00	4.50	5.50	5.50
Summary for 'Instructor' = Schacht,Walter H					***(1 detail record)***		*4.50*	*5.50*	*5.50*
Summary for 'Subject Area' = GRAS490 (1 detail record)							*4.50*	*5.50*	*5.50*
Horticulture									
Name of Instructor: Adams,Stacy Ardean			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
HORT261	150	200	HORT261	LEC	Floral Design I	100.00	106.00	318.00	212.00
HORT261	155	200	HORT261	LAB	Floral Design I	100.00	24.00	0.00	48.00
HORT133	001	100	HORT133	LAB	Hort Plant Sci Lab	100.00	17.00	17.00	34.00
HORT261	156	200	HORT261	LAB	Floral Design I	100.00	27.00	0.00	54.00
HORT395	001	300	HORT395	FLD	Career Experience	100.00	10.00	16.00	16.00
HORT399	001	300	HORT399	IND	Independent Study	66.67	2.00	4.00	4.00
HORT261	152	200	HORT261	LAB	Floral Design I	100.00	25.00	0.00	50.00
HORT261	153	200	HORT261	LAB	Floral Design I	100.00	30.00	0.00	60.00
HORT133	002	100	HORT133	LAB	Hort Plant Sci Lab	100.00	16.00	16.00	32.00
Summary for 'Instructor' = Adams,Stacy Ardean					***(9 detail records)***		*257.00*	*371.00*	*510.00*
Name of Instructor: Amundsen,Keenan L			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
HORT227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	94.00	3.76	11.28	11.28
Summary for 'Instructor' = Amundsen,Keenan L					***(1 detail record)***		*3.76*	*11.28*	*11.28*
Name of Instructor: Baenziger,Peter Stephen			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
HORT999	001	900	HORT999	IND	Doctoral Dissertatn	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Baenziger,Peter Stephen					***(1 detail record)***		*1.00*	*3.00*	*3.00*
Name of Instructor: Dweikat,Ismail M			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
HORT991	002	900	AGRO991	LEC	Smnr Presentatn&eval	100.00	1.00	1.00	1.00
Summary for 'Instructor' = Dweikat,Ismail M					***(1 detail record)***		*1.00*	*1.00*	*1.00*
Name of Instructor: Holding,David R			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
HORT131	003	100	AGRO131	LEC	Plant Science	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Holding,David R					***(1 detail record)***		*1.00*	*3.00*	*3.00*
Name of Instructor: Kettler,Timothy Alan			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
HORT153	150	100	AGRO153	LEC	Soil Resources	33.33	4.00	16.00	4.00
HORT153	153	100	AGRO153	LAB	Soil Resources	33.33	0.33	0.00	1.33
HORT153	156	100	AGRO153	LAB	Soil Resources	33.33	0.33	0.00	1.33
HORT153	152	100	AGRO153	LAB	Soil Resources	33.33	0.67	0.00	2.67
HORT153	157	100	AGRO153	LAB	Soil Resources	33.33	0.67	0.00	2.67
HORT153	151	100	AGRO153	LAB	Soil Resources	33.33	1.00	0.00	4.00
HORT153	154	100	AGRO153	LAB	Soil Resources	33.33	1.00	0.00	4.00
Summary for 'Instructor' = Kettler,Timothy Alan					***(7 detail records)***		*8.00*	*16.00*	*20.00*
Name of Instructor: Lambe,David Paul			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
HORT399	001	300	HORT399	IND	Independent Study	33.33	1.00	2.00	2.00
HORT388	791	300	ABUS388	LEC	Agribusiness Entrshp	100.00	5.00	15.00	8.40
HORT488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	96.00	6.72	20.16	20.16
HORT275	951	200	AECN275	LEC	Agribus Entr Finance	100.00	2.00	6.00	4.48
HORT275	791	200	AECN275	LEC	Agribus Entr Finance	100.00	1.00	3.00	1.68
HORT388	951	300	AGRO388	LEC	Agribusiness Entrshp	100.00	3.00	9.00	6.72
HORT488	700	400	ABUS488	LEC	Bus Mgt In Ag Entprs	97.00	1.94	5.82	5.82
HORT888	991	800	HORT888	LEC	Bus Mgt In Ag Entprs	100.00	1.00	3.00	3.00
Summary for 'Instructor' = Lambe,David Paul					***(8 detail records)***		*21.66*	*63.98*	*52.26*
Name of Instructor: Lee,Donald J			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
HORT131	150	100	AGRO131	LEC	Plant Science	100.00	10.00	30.00	20.00
HORT131	700	100	AGRO131	LEC	Plant Science	50.00	6.00	18.00	18.00
HORT131	156	100	AGRO131	RCT	Plant Science	100.00	3.00	0.00	6.00
HORT131	154	100	AGRO131	RCT	Plant Science	50.00	1.50	0.00	3.00
HORT131	153	100	AGRO131	RCT	Plant Science	50.00	0.50	0.00	1.00
HORT131	152	100	AGRO131	RCT	Plant Science	50.00	1.00	0.00	2.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
HORT131	151	100	AGRO131	RCT	Plant Science	50.00	0.50	0.00	1.00
Summary for 'Instructor' = Lee,Donald J					***(7 detail records)***		*22.50*	*48.00*	*51.00*
Name of Instructor: Loseke,Benjamin Allen			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
HORT355	001	300	HORT355	LAB	Perennl Pot Plnt Lab	10.00	0.90	1.80	2.70
Summary for 'Instructor' = Loseke,Benjamin Allen					***(1 detail record)***		*0.90*	*1.80*	*2.70*
Name of Instructor: McCallister,Dennis L			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
HORT153	157	100	AGRO153	LAB	Soil Resources	33.33	0.67	0.00	2.67
HORT153	156	100	AGRO153	LAB	Soil Resources	33.33	0.33	0.00	1.33
HORT153	151	100	AGRO153	LAB	Soil Resources	33.33	1.00	0.00	4.00
HORT153	150	100	AGRO153	LEC	Soil Resources	33.33	4.00	16.00	4.00
HORT153	154	100	AGRO153	LAB	Soil Resources	33.33	1.00	0.00	4.00
HORT153	152	100	AGRO153	LAB	Soil Resources	33.33	0.67	0.00	2.67
HORT153	153	100	AGRO153	LAB	Soil Resources	33.33	0.33	0.00	1.33
Summary for 'Instructor' = McCallister,Dennis L					***(7 detail records)***		*8.00*	*16.00*	*20.00*
Name of Instructor: Paparozzi,Ellen T			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
HORT352	001	300	HORT352	LEC	Prod&physio Of Crops	50.00	10.00	20.00	20.00
HORT355	001	300	HORT355	LAB	Perennl Pot Plnt Lab	90.00	8.10	16.20	24.30
Summary for 'Instructor' = Paparozzi,Ellen T					***(2 detail records)***		*18.10*	*36.20*	*44.30*
Name of Instructor: Read,Paul E			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
HORT471	950	400	HORT471	LEC	Vines Wines & You	94.00	21.62	64.86	65.72
HORT352	001	300	HORT352	LEC	Prod&physio Of Crops	50.00	10.00	20.00	20.00
HORT871	950	800	HORT471	LEC	Vines Wines & You	94.00	2.82	8.46	8.57
HORT471	951	400	HORT471	LAB	Vines Wines & You	94.00	21.62	0.00	10.95
HORT896	001	800	HORT896	IND	Independent Study	100.00	1.00	1.00	1.00
HORT353	001	300	HORT353	LAB	Veg Crop Prodctn Lab	100.00	10.00	20.00	30.00
HORT871	951	800	HORT471	LAB	Vines Wines & You	94.00	2.82	0.00	1.43
HORT354	001	300	HORT354	LAB	Fruit Production Lab	100.00	15.00	30.00	45.00
Summary for 'Instructor' = Read,Paul E					***(8 detail records)***		*84.88*	*144.32*	*182.68*
Name of Instructor: Simmons, Gregory			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**		
HORT200	001	200	GEOG200	LEC	Landscape&envir Appr	3.00	0.84	2.52	2.52
HORT212	001	200	HORT212	LEC	Landscape Plants I	7.00	0.77	2.31	2.31
HORT212	002	200	HORT212	LEC	Landscape Plants I	5.00	0.50	1.50	1.50
Summary for 'Instructor' = Simmons, Gregory					***(3 detail records)***		*2.11*	*6.33*	*6.33*
Name of Instructor: Sindelar,Meghan E			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
HORT153	156	100	AGRO153	LAB	Soil Resources	33.33	0.33	0.00	1.33
HORT153	154	100	AGRO153	LAB	Soil Resources	33.33	1.00	0.00	4.00
HORT153	151	100	AGRO153	LAB	Soil Resources	33.33	1.00	0.00	4.00
HORT153	150	100	AGRO153	LEC	Soil Resources	33.33	4.00	16.00	4.00
HORT153	157	100	AGRO153	LAB	Soil Resources	33.33	0.67	0.00	2.67
HORT153	152	100	AGRO153	LAB	Soil Resources	33.33	0.67	0.00	2.67
HORT153	153	100	AGRO153	LAB	Soil Resources	33.33	0.33	0.00	1.33
Summary for 'Instructor' = Sindelar,Meghan E					***(7 detail records)***		*8.00*	*16.00*	*20.00*
Name of Instructor: Sousek,Kara Eli			**Tenure Status: 4 Adjunct**		**Rank: 8 Undergrad Tch Asst**		**Full- or Part-Time: 2 Part-time**		
HORT871	951	800	HORT471	LAB	Vines Wines & You	6.00	0.18	0.00	0.09
HORT871	950	800	HORT471	LEC	Vines Wines & You	6.00	0.18	0.54	0.55
HORT842B	992	800	HORT842B	LEC	Plant Physiology	10.00	0.80	2.40	2.40
HORT829A	001	800	AGRO429A	LEC	Food Security:global	6.00	0.06	0.18	0.18
HORT471	951	400	HORT471	LAB	Vines Wines & You	6.00	1.38	0.00	0.70
HORT488	001	400	AGRO488	LEC	Bus Mgt In Ag Entprs	4.00	0.28	0.84	0.84
HORT471	950	400	HORT471	LEC	Vines Wines & You	6.00	1.38	4.14	4.20
HORT808	001	800	AGRO408	LEC	Microclim-biol Envir	2.00	0.06	0.18	0.18
HORT488	700	400	ABUS488	LEC	Bus Mgt In Ag Entprs	3.00	0.06	0.18	0.18
Summary for 'Instructor' = Sousek,Kara Eli					***(9 detail records)***		*4.38*	*8.46*	*9.31*
Name of Instructor: Streich,Anne Marie			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
HORT396	002	300	HORT396	IND	Current Projcts&tpcs	100.00	2.00	0.00	2.00
HORT131	700	100	AGRO131	LEC	Plant Science	50.00	6.00	18.00	18.00
Summary for 'Instructor' = Streich,Anne Marie					***(2 detail records)***		*8.00*	*18.00*	*20.00*
Name of Instructor: Sutton,Richard K			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
HORT212	002	200	HORT212	LEC	Landscape Plants I	95.00	9.50	28.50	28.50
HORT899	001	800	HORT899	IND	Masters Thesis	50.00	1.00	2.00	2.00
HORT265	001	200	HORT265	LAB	Vis Com Landscp Dsgn	100.00	4.00	12.00	20.00
HORT212	001	200	HORT212	LEC	Landscape Plants I	93.00	10.23	30.69	30.69
HORT200	001	200	GEOG200	LEC	Landscape&envir Appr	97.00	27.16	81.48	81.48
Summary for 'Instructor' = Sutton,Richard K					***(5 detail records)***		*51.89*	*154.67*	*162.67*
Name of Instructor: Todd,Kim Anne			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
HORT467	001	400	ARCH467	LEC	Planting Design	100.00	6.00	24.00	36.00
HORT214	001	200	HORT214	LEC	Herbaceous Plants	100.00	23.00	69.00	92.00
HORT228	150	200	AGRO228	LEC	Intro Landscape Mngt	100.00	2.00	6.00	4.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
HORT395	002	300	HORT395	FLD	Career Experience	100.00	2.00	2.00	2.00
HORT899	001	800	HORT899	IND	Masters Thesis	50.00	1.00	2.00	2.00
HORT228	151	200	AGRO228	LAB	Intro Landscape Mngt	100.00	2.00	0.00	6.00
Summary for 'Instructor' = Todd,Kim Anne					***(6 detail records)***		*36.00*	*103.00*	*142.00*
Name of Instructor: Twigg,Paul				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
HORT842B	992	800	HORT842B	LEC	Plant Physiology	90.00	7.20	21.60	21.60
Summary for 'Instructor' = Twigg,Paul					***(1 detail record)***		*7.20*	*21.60*	*21.60*
Name of Instructor: Vavala,Robert Vincent				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
HORT131	152	100	AGRO131	RCT	Plant Science	50.00	1.00	0.00	2.00
HORT131	154	100	AGRO131	RCT	Plant Science	50.00	1.50	0.00	3.00
HORT131	153	100	AGRO131	RCT	Plant Science	50.00	0.50	0.00	1.00
HORT131	151	100	AGRO131	RCT	Plant Science	50.00	0.50	0.00	1.00
HORT131	001	100	AGRO131	LEC	Plant Science	100.00	5.00	15.00	10.00
Summary for 'Instructor' = Vavala,Robert Vincent					***(5 detail records)***		*8.50*	*15.00*	*17.00*
Summary for 'Subject Area' = AGRO131 (91 detail records)							*553.88*	*1,058.64*	*1,300.13*
Hospitality Rest & Tourism Mng									
Name of Instructor: Read,Paul E				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
HRTM471	951	400	HORT471	LAB	Vines Wines & You	94.00	17.86	0.00	9.05
HRTM471	950	400	HORT471	LEC	Vines Wines & You	94.00	17.86	53.58	54.29
Summary for 'Instructor' = Read,Paul E					***(2 detail records)***		*35.72*	*53.58*	*63.34*
Name of Instructor: Sousek,Kara Eli				**Tenure Status: 4 Adjunct**		**Rank: 8 Undergrad Tch Asst**		**Full- or Part-Time: 2 Part-time**	
HRTM471	950	400	HORT471	LEC	Vines Wines & You	6.00	1.14	3.42	3.47
HRTM471	951	400	HORT471	LAB	Vines Wines & You	6.00	1.14	0.00	0.58
Summary for 'Instructor' = Sousek,Kara Eli					***(2 detail records)***		*2.28*	*3.42*	*4.04*
Summary for 'Subject Area' = HORT471 (4 detail records)							*38.00*	*57.00*	*67.39*
Landscape Architecture									
Name of Instructor: Simmons, Gregory				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part-time**	
LARC200	001	200	GEOG200	LEC	Landscape&envir Appr	3.00	0.45	1.35	1.35
LARC212	001	200	HORT212	LEC	Landscape Plants I	7.00	0.14	0.42	0.42
LARC212	002	200	HORT212	LEC	Landscape Plants I	5.00	0.45	1.35	1.35
Summary for 'Instructor' = Simmons, Gregory					***(3 detail records)***		*1.04*	*3.12*	*3.12*
Name of Instructor: Sutton,Richard K				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
LARC487	001	400	LARC487	LEC	Intro Landscape Ecol	100.00	6.00	18.00	18.00
LARC212	001	200	HORT212	LEC	Landscape Plants I	93.00	1.86	5.58	5.58

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
LARC212	002	200	HORT212	LEC	Landscape Plants I	95.00	8.55	25.65	25.65
LARC200	001	200	GEOG200	LEC	Landscape&envir Appr	97.00	14.55	43.65	43.65
Summary for 'Instructor' = Sutton,Richard K					***(4 detail records)***		*30.96*	*92.88*	*92.88*
Summary for 'Subject Area' = GEOG200 (7 detail records)							*32.00*	*96.00*	*96.00*
Life Sciences									
Name of Instructor: Schnable,James C			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
LIFE891	002	800	LIFE891	LEC	Special Topics	100.00	3.00	3.00	3.00
Summary for 'Instructor' = Schnable,James C					***(1 detail record)***		*3.00*	*3.00*	*3.00*
Summary for 'Subject Area' = LIFE891 (1 detail record)							*3.00*	*3.00*	*3.00*
Mechanized Systems Management									
Name of Instructor: Ferguson,Richard B			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
MSYM431	150	400	AGEN431	LEC	Site-spec Crop Mgt	50.00	8.50	25.50	17.00
MSYM431	151	400	AGRO431	LAB	Site-spec Crop Mgt	50.00	4.50	0.00	13.50
MSYM431	152	400	AGEN431	LAB	Site-spec Crop Mgt	50.00	2.50	0.00	7.50
MSYM431	153	400	AGEN431	LAB	Site-spec Crop Mgt	50.00	1.50	0.00	3.00
Summary for 'Instructor' = Ferguson,Richard B					***(4 detail records)***		*17.00*	*25.50*	*41.00*
Summary for 'Subject Area' = AGEN431 (4 detail records)							*17.00*	*25.50*	*41.00*
Meteorology									
Name of Instructor: Sousek,Kara Eli			**Tenure Status: 4 Adjunct**		**Rank: 8 Undergrad Tch Asst**		**Full- or Part-Time: 2 Part-time**		
METR408	001	400	AGRO408	LEC	Microclim-biol Envir	2.00	0.04	0.12	0.12
METR808	001	800	AGRO408	LEC	Microclim-biol Envir	2.00	0.02	0.06	0.06
Summary for 'Instructor' = Sousek,Kara Eli					***(2 detail records)***		*0.06*	*0.18*	*0.18*
Summary for 'Subject Area' = AGRO408 (2 detail records)							*0.06*	*0.18*	*0.18*
Natural Resources									
Name of Instructor: Arkebauer,Timothy John			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
NRES807	001	800	AGRO807	LEC	Plant-water Relation	100.00	6.00	18.00	18.00
Summary for 'Instructor' = Arkebauer,Timothy John					***(1 detail record)***		*6.00*	*18.00*	*18.00*
Name of Instructor: Dunn,Cheryl D			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
NRES442	150	400	AGRO442	LEC	Wildland Plants	100.00	11.00	33.00	22.00
NRES442	151	400	AGRO442	LAB	Wildland Plants	100.00	11.00	0.00	44.00
Summary for 'Instructor' = Dunn,Cheryl D					***(2 detail records)***		*22.00*	*33.00*	*66.00*
Name of Instructor: Han,Chenchou			**Tenure Status: 3 Grad**		**Rank: 7 Grad Rch Asst**		**Full- or Part-Time: 3 Tch Asst**		
NRES906	700	900	AGRO906	LEC	Crop Growth & Yield	7.00	0.14	0.42	0.42
Summary for 'Instructor' = Han,Chenchou					***(1 detail record)***		*0.14*	*0.42*	*0.42*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Name of Instructor: Simmons, Gregory			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 2 Part- time**		
NRES212	002	200	HORT212	LEC	Landscape Plants I	5.00	0.10	0.30	0.30
NRES212	001	200	HORT212	LEC	Landscape Plants I	7.00	0.07	0.21	0.21
Summary for 'Instructor' = Simmons, Gregory					***(2 detail records)***		*0.17*	*0.51*	*0.51*
Name of Instructor: Sousek,Kara Eli			**Tenure Status: 4 Adjunct**		**Rank: 8 Undergrad Tch Asst**		**Full- or Part-Time: 2 Part-time**		
NRES808	001	800	AGRO408	LEC	Microclim-biol Envir	2.00	0.14	0.42	0.42
NRES429A	001	400	AGRO429A	LEC	Food Security:global	6.00	0.06	0.18	0.18
NRES408	001	400	AGRO408	LEC	Microclim-biol Envir	2.00	0.08	0.24	0.24
NRES829A	001	800	AGRO429A	LEC	Food Security:global	6.00	0.24	0.72	0.72
Summary for 'Instructor' = Sousek,Kara Eli					***(4 detail records)***		*0.52*	*1.56*	*1.56*
Name of Instructor: Sutton,Richard K			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
NRES212	002	200	HORT212	LEC	Landscape Plants I	95.00	1.90	5.70	5.70
NRES212	001	200	HORT212	LEC	Landscape Plants I	93.00	0.93	2.79	2.79
Summary for 'Instructor' = Sutton,Richard K					***(2 detail records)***		*2.83*	*8.49*	*8.49*
Name of Instructor: Todd,Kim Anne			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
NRES214	001	200	HORT214	LEC	Herbaceous Plants	100.00	3.00	9.00	12.00
Summary for 'Instructor' = Todd,Kim Anne					***(1 detail record)***		*3.00*	*9.00*	*12.00*
Name of Instructor: Twidwell Jr,Dirac L			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
NRES844	150	800	AGRO444	LEC	Ecosys Monitor&assmt	100.00	3.00	9.00	9.00
NRES444	150	400	AGRO444	LEC	Ecosys Monitor&assmt	100.00	3.00	9.00	9.00
Summary for 'Instructor' = Twidwell Jr,Dirac L					***(2 detail records)***		*6.00*	*18.00*	*18.00*
Name of Instructor: Vavala,Robert Vincent			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
NRES107	700	100	AGRO107	LEC	Invasive Plant:impact	100.00	2.00	6.00	6.00
Summary for 'Instructor' = Vavala,Robert Vincent					***(1 detail record)***		*2.00*	*6.00*	*6.00*
Name of Instructor: Yang,Haishun			**Tenure Status: 2 Tenure-Track**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
NRES906	700	900	AGRO906	LEC	Crop Growth & Yield	93.00	1.86	5.58	5.58
Summary for 'Instructor' = Yang,Haishun					***(1 detail record)***		*1.86*	*5.58*	*5.58*
Summary for 'Subject Area' = AGRO906 (17 detail records)							*44.52*	*100.56*	*136.56*
Nutrition & Health Sciences									
Name of Instructor: Read,Paul E			**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**		
NUTR871	951	800	HORT471	LAB	Vines Wines & You	94.00	0.94	0.00	0.48
NUTR471	950	400	HORT471	LEC	Vines Wines & You	94.00	1.88	5.64	5.72
NUTR471	951	400	HORT471	LAB	Vines Wines & You	94.00	1.88	0.00	0.95
NUTR871	950	800	HORT471	LEC	Vines Wines & You	94.00	0.94	2.82	2.86

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Read,Paul E					***(4 detail records)***		*5.64*	*8.46*	*10.00*
Name of Instructor: Sousek,Kara Eli				**Tenure Status: 4 Adjunct**		**Rank: 8 Undergrad Tch Asst**		**Full- or Part-Time: 2 Part-time**	
NUTR471	950	400	HORT471	LEC	Vines Wines & You	6.00	0.12	0.36	0.36
NUTR471	951	400	HORT471	LAB	Vines Wines & You	6.00	0.12	0.00	0.06
NUTR829A	001	800	AGRO429A	LEC	Food Security:global	6.00	0.12	0.36	0.36
NUTR871	951	800	HORT471	LAB	Vines Wines & You	6.00	0.06	0.00	0.03
NUTR871	950	800	HORT471	LEC	Vines Wines & You	6.00	0.06	0.18	0.18
Summary for 'Instructor' = Sousek,Kara Eli					***(5 detail records)***		*0.48*	*0.90*	*1.00*
Summary for 'Subject Area' = HORT471 (9 detail records)							*6.12*	*9.36*	*11.00*
Prof Golf Management Program									
Name of Instructor: Amundsen,Keenan L				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
PGAM229	001	200	PGAM229	LAB	Turfgrass Mgt Lab	25.00	5.00	5.00	10.00
PGAM227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	94.00	19.74	59.22	59.22
Summary for 'Instructor' = Amundsen,Keenan L					***(2 detail records)***		*24.74*	*64.22*	*69.22*
Summary for 'Subject Area' = AGRO227 (2 detail records)							*24.74*	*64.22*	*69.22*
Range Science									
Name of Instructor: Dunn,Cheryl D				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
RNGE442	150	400	AGRO442	LEC	Wildland Plants	100.00	3.00	9.00	6.00
RNGE442	151	400	AGRO442	LAB	Wildland Plants	100.00	3.00	0.00	12.00
Summary for 'Instructor' = Dunn,Cheryl D					***(2 detail records)***		*6.00*	*9.00*	*18.00*
Name of Instructor: Guretzky,John Andrew				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
RNGE240	150	200	AGRO240	LEC	Forage Crop&pstr Mgt	100.00	1.00	3.00	2.00
RNGE240	151	200	AGRO240	LAB	Forage Crop&pstr Mgt	100.00	1.00	0.00	2.00
Summary for 'Instructor' = Guretzky,John Andrew					***(2 detail records)***		*2.00*	*3.00*	*4.00*
Name of Instructor: Schacht,Walter H				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
RNGE445	001	400	AGRO445	LEC	Livestock Mgt Range	49.00	1.47	4.41	4.41
Summary for 'Instructor' = Schacht,Walter H					***(1 detail record)***		*1.47*	*4.41*	*4.41*
Name of Instructor: Twidwell Jr,Dirac L				**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
RNGE444	150	400	AGRO444	LEC	Ecosys Monitor&assmt	100.00	2.00	6.00	6.00
Summary for 'Instructor' = Twidwell Jr,Dirac L					***(1 detail record)***		*2.00*	*6.00*	*6.00*
Summary for 'Subject Area' = AGRO444 (6 detail records)							*11.47*	*22.41*	*32.41*
Science Literacy									
Name of Instructor: Sigmon,Brandi A				**Tenure Status: 4 Adjunct**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**	
SCIL101	250	100	SCIL101	LEC	Science&decision-making	50.00	61.00	183.00	183.00

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Summary for 'Instructor' = Sigmon,Brandi A					***(1 detail record)***		*61.00*	*183.00*	*183.00*
Summary for 'Subject Area' = SCIL101 (1 detail record)							*61.00*	*183.00*	*183.00*
Soil Science									
Name of Instructor: Blanco,Humberto				**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**	
SOIL269	001	200	AGRO269	LEC	Princ Soil Mgt	100.00	8.00	24.00	24.00
Summary for 'Instructor' = Blanco,Humberto					***(1 detail record)***		*8.00*	*24.00*	*24.00*
Name of Instructor: Kettler,Timothy Alan				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
SOIL153	151	100	AGRO153	LAB	Soil Resources	33.33	2.33	0.00	9.33
SOIL153	150	100	AGRO153	LEC	Soil Resources	33.33	17.00	68.00	17.00
SOIL153	153	100	AGRO153	LAB	Soil Resources	33.33	3.00	0.00	12.00
SOIL153	154	100	AGRO153	LAB	Soil Resources	33.33	3.67	0.00	14.67
SOIL153	152	100	AGRO153	LAB	Soil Resources	33.33	2.00	0.00	8.00
SOIL153	155	100	AGRO153	LAB	Soil Resources	33.33	1.33	0.00	5.33
SOIL153	156	100	AGRO153	LAB	Soil Resources	33.33	3.33	0.00	13.33
SOIL153	157	100	AGRO153	LAB	Soil Resources	33.33	1.33	0.00	5.33
Summary for 'Instructor' = Kettler,Timothy Alan					***(8 detail records)***		*34.00*	*68.00*	*85.00*
Name of Instructor: McCallister,Dennis L				**Tenure Status: 1 Tenured**		**Rank: 1 Professor**		**Full- or Part-Time: 1 Full-time**	
SOIL153	152	100	AGRO153	LAB	Soil Resources	33.33	2.00	0.00	8.00
SOIL153	155	100	AGRO153	LAB	Soil Resources	33.33	1.33	0.00	5.33
SOIL153	156	100	AGRO153	LAB	Soil Resources	33.33	3.33	0.00	13.33
SOIL153	153	100	AGRO153	LAB	Soil Resources	33.33	3.00	0.00	12.00
SOIL153	157	100	AGRO153	LAB	Soil Resources	33.33	1.33	0.00	5.33
SOIL153	154	100	AGRO153	LAB	Soil Resources	33.33	3.67	0.00	14.67
SOIL153	151	100	AGRO153	LAB	Soil Resources	33.33	2.33	0.00	9.33
SOIL153	150	100	AGRO153	LEC	Soil Resources	33.33	17.00	68.00	17.00
Summary for 'Instructor' = McCallister,Dennis L					***(8 detail records)***		*34.00*	*68.00*	*85.00*
Name of Instructor: Sindelar,Meghan E				**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**	
SOIL153	155	100	AGRO153	LAB	Soil Resources	33.33	1.33	0.00	5.33
SOIL153	151	100	AGRO153	LAB	Soil Resources	33.33	2.33	0.00	9.33
SOIL153	150	100	AGRO153	LEC	Soil Resources	33.33	17.00	68.00	17.00
SOIL153	153	100	AGRO153	LAB	Soil Resources	33.33	3.00	0.00	12.00
SOIL153	157	100	AGRO153	LAB	Soil Resources	33.33	1.33	0.00	5.33
SOIL153	154	100	AGRO153	LAB	Soil Resources	33.33	3.67	0.00	14.67
SOIL153	156	100	AGRO153	LAB	Soil Resources	33.33	3.33	0.00	13.33

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
SOIL153	152	100	AGRO153	LAB	Soil Resources	33.33	2.00	0.00	8.00
Summary for 'Instructor' = Sindelar,Meghan E					***(8 detail records)***		*34.00*	*68.00*	*85.00*
Summary for 'Subject Area' = AGRO153 (25 detail records)							*110.00*	*228.00*	*279.00*
Turfgrass & Landscape Mngt									
Name of Instructor: Amundsen,Keenan L			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
TLMT229	001	200	TLMT229	LAB	Int:turfgrass Mgt Lab	100.00	6.00	6.00	21.00
TLMT227	150	200	AGRO227	LEC	Intro Turfgrass Mngt	94.00	15.04	45.12	45.12
Summary for 'Instructor' = Amundsen,Keenan L					***(2 detail records)***		*21.04*	*51.12*	*66.12*
Name of Instructor: Kreuser,William C			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
TLMT327	001	300	TLMT327	LEC	Turfgrass Sci & Mngt	100.00	11.00	33.00	33.00
Summary for 'Instructor' = Kreuser,William C					***(1 detail record)***		*11.00*	*33.00*	*33.00*
Name of Instructor: Streich,Anne Marie			**Tenure Status: 4 Adjunct**		**Rank: 5 Lecturer**		**Full- or Part-Time: 1 Full-time**		
TLMT395	951	300	TLMT395	FLD	Career Experience	100.00	16.00	19.00	10.88
TLMT127	951	100	TLMT127	LEC	Turfgrass&landscp Mgt	100.00	7.00	7.00	3.17
Summary for 'Instructor' = Streich,Anne Marie					***(2 detail records)***		*23.00*	*26.00*	*14.05*
Name of Instructor: Thompson,Cole S			**Tenure Status: 2 Tenure-Track**		**Rank: 3 Asst Professor**		**Full- or Part-Time: 1 Full-time**		
TLMT427	950	400	TLMT427	LEC	Turfgrass Sys Mngt	100.00	7.00	21.00	13.16
TLMT427	951	400	TLMT427	LAB	Turfgrass Sys Mngt	100.00	7.00	0.00	13.16
Summary for 'Instructor' = Thompson,Cole S					***(2 detail records)***		*14.00*	*21.00*	*26.32*
Name of Instructor: Todd,Kim Anne			**Tenure Status: 1 Tenured**		**Rank: 2 Assoc Professor**		**Full- or Part-Time: 1 Full-time**		
TLMT228	151	200	AGRO228	LAB	Intro Landscape Mngt	100.00	8.00	0.00	24.00
TLMT228	150	200	AGRO228	LEC	Intro Landscape Mngt	100.00	8.00	24.00	16.00
TLMT326	001	300	TLMT326	LEC	Landscape Solutions	100.00	5.00	15.00	20.00
TLMT395	952	300	TLMT395	FLD	Career Experience	100.00	1.00	1.00	0.45
Summary for 'Instructor' = Todd,Kim Anne					***(4 detail records)***		*22.00*	*40.00*	*60.45*
Summary for 'Subject Area' = TLMT395 (11 detail records)							*91.04*	*171.12*	*199.95*
Water Science									
Name of Instructor: Sousek,Kara Eli			**Tenure Status: 4 Adjunct**		**Rank: 8 Undergrad Tch Asst**		**Full- or Part-Time: 2 Part-time**		
WATS408	001	400	AGRO408	LEC	Microclim-biol Envir	2.00	0.04	0.12	0.12
Summary for 'Instructor' = Sousek,Kara Eli					***(1 detail record)***		*0.04*	*0.12*	*0.12*
Summary for 'Subject Area' = AGRO408 (1 detail record)							*0.04*	*0.12*	*0.12*

Course ID	Section	Level	Cross-listing	Activity Type	Course Title	Instr. Pct (%)	No. of Students	SCH	Contact Hours
Grand Total of Courses taught by Faculty in Agronomy and Horticulture							***2,716.32***	***5,744.39***	***6,544.42***

Note: Sorted by instructor and then subject area. This listing includes courses such as labs which may not have credit hours attached to them.

Student Credit Hours

Fall Semesters

Course Levels	100	200	300	400	500	600	700	800	900	Total
Fall 2012	1868	1549	647	640	8	0	0	348	240	5299
Fall 2013	2153	1625	742	646	17	0	0	415	314	5912
Fall 2014	2133	1946	839	812	0	0	0	457	298	6484
Fall 2015	2227	1612	842	647	20	0	0	370	274	5991
Fall 2016	2007	1447	877	651	16	0	0	471	274	5744
Percent Change from 2012-13 to 2016-17	7.4%	-6.6%	35.5%	1.8%	100.0%	#Num!	#Num!	35.4%	14.6%	8.4%
Percent Change from 2015-16 to 2016-17	-9.9%	-10.2%	4.2%	0.7%	-20.0%	#Num!	#Num!	27.4%	0.3%	-4.1%

Table 7. Number of degrees awarded by level, 2011-2012 through 2015-2016. Degrees are for each year starting July 1 and ending June 30. Source: Office of Institutional Effectiveness and Analysis. July 2017

Horticulture

Year	Bachelor's Degree	Master's Degree	Doctoral Degree	Total
2011-12	21	3	--	24
2012-13	16	--	--	16
2013-14	18	1	--	19
2014-15	25	3	--	28
2015-16	18	2	--	20
Percent Change from 2011-2012 to 2015-2016	(14.3)	(33.3)	--	(16.7)
Percent Change from 2014-2015 to 2015-2016	(28.0)	(33.3)	--	(28.6)

Turfgrass and Landscape Management

Year	Bachelor's Degree	Master's Degree	Doctoral Degree	Total
2011-12	4	--	--	4
2012-13	13	--	--	13
2013-14	16	--	--	16
2014-15	12	--	--	12
2015-16	11	--	--	11
Percent Change from 2011-2012 to 2015-2016	175.0	#DIV/0!	--	175.0
Percent Change from 2014-2015 to 2015-2016	(8.3)	#DIV/0!	--	(8.3)

Plant Biology

Year	Bachelor's Degree	Master's Degree	Doctoral Degree	Total
2011-12	3	--	--	3
2012-13	4	--	--	4
2013-14	2	--	--	2
2014-15	4	--	--	4
2015-16	5	--	--	5
Percent Change from 2011-2012 to 2015-2016	66.7	#DIV/0!	--	66.7
Percent Change from 2014-2015 to 2015-2016	25.0	#DIV/0!	--	25.0

Agronomy

Year	Bachelor's Degree	Master's Degree	Doctoral Degree in Agronomy	Doctoral Degree in Agronomy and Horticulture
2011-12	16	18	8	--
2012-13	40	14	3	3
2013-14	44	9	1	9
2014-15	55	13	--	9
2015-16	49	14	--	12
Percent Change from 2011-2012 to 2015-2016	206.3	(22.2)	--	--
Percent Change from 2014-2015 to 2015-2016	(10.9)	7.7	--	33.3

Table 8. Student registrations in the Department of Agronomy & Horticulture and by college for fall semesters 2012 through 2016. Source: Registration extract as of the sixth day of enrollment for above years. Source: Office of Institutional Effectiveness and Analysis. July 2017

Horticulture

College	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016
Agricultural Sciences & Nat. Resources	264	294	328	300	268
Architecture	18	8	6	9	10
Arts & Sciences	16	21	18	12	20
Business Administration	20	17	13	29	18
Education and Human Sciences	53	40	54	49	44
Engineering	7	1	5	4	6
Fine & Performing Arts	10	3	3	2	1
Journalism & Mass Communications	6	3	7	7	10
Explore Center Undergraduates	12	11	4	11	5
Graduate Studies	17	13	14	18	20
Visiting	--	--	--	--	--
TOTAL	**423**	**411**	**452**	**441**	**402**

Horticulture (Omaha)

College	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016
Agricultural Sciences & Nat. Resources	7	12	10	6	--
Engineering	8	6	--	--	--
Intercampus	--	1	--	--	--
UNO Undergrad	279	324	242	167	--
TOTAL	**294**	**343**	**252**	**173**	

Agronomy

College	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016
Agricultural Sciences & Nat. Resources	718	778	872	911	897
Architecture	7	--	2	--	--
Arts & Sciences	4	12	11	23	14
Business Administration	10	12	11	15	22
Education and Human Sciences	3	6	10	12	11
Engineering	15	5	16	15	27
Fine & Performing Arts	--	1	--	7	1
Journalism & Mass Communications	1	--	--	2	1
Explore Center Undergraduates	13	8	13	15	11
Graduate Studies	239	301	256	257	306
Intercampus	--	--	--	--	1
Visiting	3	3	21	4	11
TOTAL	**1,013**	**1,126**	**1,212**	**1,261**	**1,302**

Range Science

College	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016
Agricultural Sciences & Nat. Resources	11	19	12	9	9
TOTAL	**11**	**19**	**12**	**9**	**9**

Soil Science

College	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016
Agricultural Sciences & Nat. Resources	60	67	66	47	63
Architecture	--	--	--	--	1
Arts & Sciences	4	7	6	7	5
Business Administration	1	--	1	--	--
Education and Human Sciences	--	1	--	2	1
Engineering	--	2	3	2	--
Explore Center Undergraduates	4	4	1	1	--
Graduate Studies	--	--	1	--	--
Visiting	--	--	1	--	--
TOTAL	**69**	**81**	**79**	**59**	**70**

Turfgrass and Landscape Management

College	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016
Agricultural Sciences & Nat. Resources	112	82	88	88	70
Architecture	--	--	--	4	--
Business Administration	3	--	2	1	4
Education and Human Sciences	2	--	--	--	--
Engineering	--	--	1	2	3
Explore Center Undergraduates	2	--	--	--	--
UNO - Public Affairs & Comm Service	--	--	--	1	--
TOTAL	**119**	**82**	**91**	**96**	**77**

Totals

College	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016
Agricultural Sciences & Nat. Resources	1,172	1,252	1,376	1,361	1,307
Architecture	25	8	8	13	11
Arts & Sciences	24	40	35	42	39
Business Administration	34	29	27	45	44
Education and Human Sciences	58	47	64	63	56
Engineering	30	14	25	23	36
Fine & Performing Arts	10	4	3	9	2
Journalism & Mass Communications	7	3	7	9	11
Explore Center Undergraduates	31	23	18	27	16
Graduate Studies	256	314	271	275	326
Intercampus		1			1
Visiting	3	3	22	4	11
UNO Undergrad	279	324	242	167	0
UNO - Public Affairs & Comm Service	0	0	0	1	0
TOTAL	**1,929**	**2,062**	**2,098**	**2,038**	**1,860**

Table 9. Number of majors by gender and ethnicity for fall semesters 2011- 2012 and 2015-2016. Source: Office of Institutional Effectiveness and Analysis. July 2017

	Black Non-Hispanic		Amer Indian/ Alaska Native		Asian/Pacific Islander		Hispanic		White-Non Hispanic		Unknown		Non-Resident Alien		Two or more Races		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
2012																	
Graduate -MS																	
Agronomy	0	0	0	0	0	0	2	0	21	10	5	1	4	3	1	1	48
Horticulture	0	0	0	0	0	0	0	0	3	2	0	0	0	1	0	0	6
Undergraduate																	
Agronomy	1	0	0	0	0	0	2	1	151	11	6	0	0	1	0	0	173
Environmental Restorat	0	0	0	0	0	0	0	0	5	4	0	0	0	0	1	0	10
Grassland Ecology & Ma	0	0	0	0	0	0	0	0	6	2	1	0	1	0	0	0	10
Horticulture	2	0	0	0	0	1	1	2	35	36	0	0	0	1	0	1	79
Plant Biology	0	0	0	0	1	0	0	1	10	6	0	0	0	0	0	0	18
Pre-Horticulture (Omah	0	0	0	0	0	0	0	0	4	6	0	0	0	0	0	0	10
Turfgrass and Landscap	0	0	0	0	0	0	0	0	51	2	0	0	1	0	0	0	54
Graduate -PHD																	
Agronomy	1	0	0	0	1	1	2	1	11	6	4	0	17	9	0	0	53
Horticulture	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
2016																	
Graduate -MS																	
Agronomy	0	0	0	0	0	0	2	1	42	21	0	2	9	2	0	0	79
Horticulture	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0	0	5
Undergraduate																	
Agronomy	0	0	0	0	1	0	0	2	161	17	2	0	3	4	0	1	191
Horticulture	0	0	0	0	0	1	1	1	22	27	1	1	1	0	0	0	55
Plant Biology	0	0	0	0	0	0	0	0	12	5	0	0	0	0	2	0	19
Pre-Horticulture (Omah	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
Turfgrass and Landscap	0	0	0	0	0	0	0	0	26	1	2	0	1	1	0	0	31
Graduate -PHD																	
Agronomy and Horticult	1	0	0	0	0	0	4	1	14	6	1	0	37	17	0	1	82

Summary

Black Non-Hispanic		Amer Indian/ Alaska Native		Asian/Pacific Islander		Hispanic		White-Non Hispanic		Unknown		Non-Resident Alien		Two or more Races		Total
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	

Fall 2012		
% of undergraduates that are minorities in:	*2012*	*3.4%*
% of undergraduates that are non-resident aliens in :	*2012*	*1.1%*
% of graduate students that are minorities in :	*2012*	*7.3%*
% of graduate students that are non-resident aliens in :	*2012*	*31.2%*

Fall 2016		
% of undergraduates that are minorities in:	*2016*	*2.0%*
% of undergraduates that are non-resident aliens in	*2016*	*3.4%*
% of graduate students that are minorities in :	*2016*	*5.4%*
% of graduate students that are non-resident aliens in :	*2016*	*39.8%*

Table 10. Fall 2016 Report of Fall 2015 Data the University of Nebraska submitted for the Delaware Study for the Department of Agronomy and Horticulture. Source: Office of Institutional Effectiveness and Analysis. July 2017

National Study of Instructional Costs and Productivity - Fall 2016 Report of Fall 2015 Data
(Delaware Cost Study)

CIP: 01.1101 *CIP Title:* Plant Sciences, General. *Average degrees (3 yrs)--* *Bachelor's:* 85 *Master's:* 13 *Doctorate:* 8 *Professional:* 0
Delaware Study CIP: 01.1101

FTE Faculty				Student Credit Hours								Organized Class Sections				
Type of Faculty	(A) Total	(B) Sep. Budg.	(C) Instructional	(D) Lower Div. OC	(E) Upper Div. OC	(F) Undergrad Indv. Instruct.	(G) Total Undergrad SCH	(H) Grad OC	(I) Graduate Indv. Instruct.	(J) Total Graduate SCH	(K) Total SCH	(L) Lab/Dsc/ Rec. Sections	Other Section Types (Lecture, Seminar, etc.) (M) Lower Div.	(N) Upper Div.	(O) Graduate	(P) Total
Regular TTT	50.00	0.00	50.00	1,994.3	1,159.7	50.6	3,204.6	299.2	314.9	614.1	3,818.7	22.2	13.4	12.1	15.1	62.7
Other Regular	6.50	0.00	6.50	1,548.8	200.0	38.5	1,787.2	31.0	0.5	31.5	1,818.7	19.5	8.5	3.1	1.3	32.4
Supplemental	1.19		1.19	190.1	54.0	0.0	244.1	18.0	0.0	18.0	262.1	3.0	3.1	1.4	0.6	8.1
TA - Credit	0.36		0.36	91.9	0.0	0.0	91.9	0.0	0.0	0.0	91.9	4.3	0.0	0.0	0.0	4.3
TA - No Credit	3.44		3.44									1.0	0.0	0.0	0.0	1.0
Total	61.49	0.00	61.49	3,825.0	1,413.7	89.0	5,327.7	348.2	315.4	663.6	5,991.3	49.0	25.0	16.6	17.0	108.6

Dissertation SCH: 202

Source: University of Nebraska–Lincoln data submitted to the Delaware Study.

Recently revised learning objectives for each major in the department of Agronomy and Horticulture.

HORTICULTURE (PROPOSED NEW NAME, PLANT AND LANDSCAPE SYSTEMS)

At the completion of the degree, students should be able to:

1. Search for, filter, synthesize, and interpret evidence-based information to solve complex plant and landscape system problems.
2. Access and use state-of-the-art software, web, and mobile applications (apps), instruments, and sensors to help solve complex plant and landscape system problems.
3. Apply classroom experiences and knowledge to real-world internship and career experiences in plant and landscape systems.
4. Communicate with diverse professionals across plant and landscape systems using science- and industry-specific vocabulary.
5. Educate and persuade stakeholders (e.g., consumers, policy-makers, growers, etc.) to action using evidence-based and technically sound oral, written, and multimedia communications.
6. Lead and contribute to diverse teams and integrate knowledge across disciplines to solve complex plant and landscape system problems.
7. Integrate biological, physical, and chemical sciences to improve management of plant and landscape systems.
8. Identify, propagate, grow, and manage a diversity of plant species in controlled and increasingly stressful field environments.
9. Develop integrated, bioeconomic strategies for managing soil, pests, and beneficial organisms in plant and landscape systems.
10. Design climate-resilient and resource-efficient landscape systems to achieve ecological, aesthetic, recreational, and production functions.
11. Identify opportunities to increase efficiency of plant and landscape systems, and add value to plant and landscape products.
12. Anticipate challenges in plant and landscape systems, and develop and test innovative solutions to those challenges.
13. Apply plant and landscape knowledge to a range of systems and scales including field, controlled environment, urban, rural, global, and local.

PLANT BIOLOGY

At the completion of the degree, students should be able to:

1. Understand plant biology and diversity and the role of microbial and soil systems in supporting plant life.
2. Demonstrate knowledge of the fundamental principles and terminology of production agriculture.
3. Identify and describe the resources and uses of managed ecosystems.
4. Describe how the plant uses recourses in its environment and controls metabolic processes to complete its lifecycle or persist.
5. Evaluate management practices that could be used to meet a plant growth or ecosystem status goal.
6. Develop reports, including tables and figures, based on collated or analyzed data.
7. Interpret data presented in tables and figures.
8. Critically evaluate information to determine which facts apply to specific situations.
9. Envision how plant science professionals use plant science knowledge to solve problems
10. Recognize where gaps occur in our knowledge of plant biology and critique experiments designed to fill these gaps.
11. Demonstrate working knowledge of the scientific method and hypotheses development.
12. Skillfully implement investigations and/or management practices designed to answer questions or solve problems.

TURFGRASS AND LANDSCAPE MANAGEMENT

Students with a degree in Turfgrass and Landscape Management will be able to:

1. Demonstrate technical competence by identifying globally important turf and landscape systems, their uses, and ecophysiological, resource, and management factors that affect their utility.
2. Evaluate the complex interaction of biotic, abiotic, and inherent factors that affect plant metabolism, and design ethical, climate- and resource-efficient management systems that account for, and proactively mitigate, potential stresses by applying theoretical science to real-world turf and landscape systems.
3. Critically evaluate turf and landscape systems using traditional and instrument- or application-based methods to collect and interpret data to help solve complex turf and landscape management problems.
4. Search for, organize, synthesize, and evaluate technical information to solve complex turf and landscape management problems, and communicate gleaned knowledge to diverse stakeholders in oral or written reports using appropriate science- or industry-specific language.
5. Lead and contribute to diverse teams to identify and understand factors from biological, physical, sociological, and chemical sciences that affect turf and landscape system utility, and design appropriate integrated management systems.

AGRONOMY

At the completion of the degree, students should be able to:

1. Identify, evaluate, synthesize, and interpret evidence-based information to solve complex plant and soil system problems.
2. Apply classroom experiences and knowledge to real-world plant and soil systems.
3. Analyze quantitative and qualitative information in tabular, graphical and geospatial forms, to draw appropriate inferences.
4. Communicate plant and soil knowledge and management action using evidence-based and technically sound oral, written, and multimedia communications.
5. Lead and contribute to diverse teams to solve complex plant and soil system problems.
6. Integrate fundamental and applied biological, physical, and chemical sciences to improve management of plant and soil systems.
7. Develop integrated economic strategies using appropriate technologies for managing biotic and abiotic factors in plant and soil systems.
8. Promote environmental stewardship and improve efficiency of plant and soil systems to enhance ecosystem services.
9. Anticipate future challenges in plant and soil systems, and develop and test innovative solutions to those challenges.
10. Apply plant and soil knowledge to a range of agroecosystems at temporal and spatial scales from local to global.

ACADEMIC PROGRAM REVIEW: RESPONSE TO REVIEW TEAM RECOMMENDATIONS–JUNE 2013

Submitted on June 1, 2013

Compiled by Roch Gaussoin, Head and Richard Ferguson, Associate Head with input from faculty and staff

IANR Deans' comments are shown in blue after each section.

Review Response Summary:

The faculty, staff and administration of the Department of Agronomy and Horticulture appreciate the time, energy and effort put forth by the team of nationally recognized scientists working in program areas related to Agronomy and Horticulture in our Academic Program Review (APR) held October 3-7, 2011. Recommendations made by the review team were relevant and helpful. The most important recommendation identified by the review team was to hold a series of strategic planning efforts. The review team was legitimately confused by the disconnect between research program themes identified in the review document and faculty engagement. The initial document, and its program themes, was initiated under different leadership. The department was in transition and the final document, unfortunately, resulted in a perceived disengagement in process by faculty. Many of the review team recommendations, however, were perceptive and, more importantly, doable, which should result in a more streamlined and effective department. Exclusive of planning efforts for the department in total, development of strategic plans was specifically mentioned for undergraduate teaching and horticulture. The undergraduate curriculum committee has initiated a comprehensive review of all undergraduate majors to identify undergraduate program duplications or omissions as well as to help create collegiality and unity towards common goals. Efforts are on-going and substantive adjustments are in process. These modifications are strongly linked to the UNL reduced credit hour mandate and IANR/CASNR priority areas. The horticulture response to the review recommendation was open to an effort pursuing a strategic plan, predicated on response from upper administration (Unit Head to VC) followed by faculty driven strategic plans to include market analysis, inclusion of predicted retirements and active engagement of existing faculty. While not specifically mentioned by the review team, strategic planning for discipline-based peer groups and possible re-configuration of the peer group structure is something we wish to explore. The opportunity for the department to go beyond the self-study requirements needed to prepare the APR document and develop a shared vision and direction presents an interesting and exciting challenge. This will be a "Golden" opportunity to increase alignment within and external to the department. The prospects of more than 35 new faculty in IANR, the Dougherty Water for Food Institute, Innovation Campus, unprecedented industry collaborations and renewed and energized interest among youth in agriculture present exciting opportunities for the Department of Agronomy & Horticulture.

Team Recommendation:

The most significant issue raised by the review team addressed perceptions of the lack of a shared vision within the department, and occasional lack of unity. There was recognition that a shared vision for the department should also align with administrative and clientele perceptions. A strategic planning process was suggested by most peer groups to identify/clarify peer group objectives and departmental vision.

Department Response:

Department of Agronomy and Horticulture "*Adaptive Strategic Planning*" Event

"Consensus and Collaboration"

Prior to a culmination event, an external facilitator, Barton Wechsler, Ph.D., Dean, Truman School of Public Affairs, University of Missouri, will develop and implement a fact-finding effort to insure the adaptive strategic planning goals and objectives are relevant, targeted and attainable. Based on the inputs and outcomes of the Academic Program Review conducted in 2011 and material developed in the pre-event exercise, the facilitator will mediate an off-site event on December 18, 2013 targeting and not restricted to:

1. Identify interdisciplinary themes in which faculty should be engaged within and external to the department, consistent with IANR and UNL goals.

There is the potential that these themes could replace, or occur along with, peer panel groupings.

2. Assessment of the current peer panel group structure, and whether the current structure should be retained, restructured, or eliminated.
3. Maintain and enhance current capacity (not more with less, but quality and efficiency with less) for:
    a. delivery of a diverse and successful undergraduate and graduate curriculum with limited teaching resources
    b. research resource competitiveness
    c. Leadership in applied, plant-based, research-driven technology transfer via department extension specialists and extension educators.
1. Evaluation of the department name, to consider if a name change would facilitate a more unified, shared vision among faculty, and better identify what we do for current and potential students and clientele.

Specific Timeline:

A faculty retreat will be held (tentatively) the week of December 16-20, 2013, mediated by an external facilitator, to pursue the above objectives. The retreat will be preceded by facilitator mediated group discussions in preparation for the retreat. Following the retreat, a report on recommendations for the above objectives will be provided to the Deans' Council by February 28, 2014.

IANR Deans' Council Response:

We are highly supportive of your forthcoming adaptive strategic planning retreat. The four key elements being discussed are central to the unit's strengths and weaknesses. There are many potential organizational structures the Department could consider to enhance all three missions (T/E/R), maximize operational efficiency, and improve faculty governance. The current peer panel structure does not appear to fulfill all these needs; structures that will build upon and enhance disciplinary and interdisciplinary strengths in research, extension and instruction may not be those required for operational efficiency and governance. While we wouldn't be supportive of a complex organizational model, we also would not want to have the unit create a dysfunctional single structure.

We are equally supportive of having the faculty transparently examine all existing resources available to the Department (human and financial capital), followed by a structured but robust discussion on how best to use faculty/staff talents and financial resources to best meet your future obligations to advance science, develop students, and meet the needs of state-wide clientele.

After the retreat, current structures and approaches might be identified as optimal… or a radically different vision might emerge. Given that the unit has significant strengths, we are excited that Agronomy and Horticulture is taking these steps towards a process of continuous improvement.

Response to Specific Review Team Recommendations: Ornamental Horticulture and Landscape Ecology and Design

Team Recommendation:

Increase connections to existing horticultural production system(s).

Faculty in these programs need to develop a strategic plan for research and extension.

Department Response:

Connections to production horticulture are severely limited due to decreased faculty in these areas of specialization and small, specialized but active horticultural production systems in Nebraska. Faculty associated with the viticulture industry are well connected, as are faculty in ornamental horticulture and the nursery industry. Development of a strategic plan will require assessment of administrative vision (Head and IANR), market analysis, inclusion of predicted retirements and active engagement by existing faculty.

Specific Timeline:

Engaged OHLED faculty are predominately teaching FTE and significant time is spent in curriculum development and adjustment. Strategic planning for OHLED research and extension will occur through 2013, leading to participation in department-wide strategic planning efforts.

IANR Deans' Council Response:

Development of a strong strategic vision for horticulture related sciences is required. We note, however, that the departmental retreat is focused on broader issues. How will the Fall 2013 strategic planning activity dovetail with these (and other) efforts to develop a strategic vision for a particular sub- discipline? Faculty with interest in the horticultural sciences should provide strong input and help develop a broad (thematic) vision and organizational plan for Agronomy and Horticulture. Rapidly after the retreat, it will be essential to develop a coherent vision of how horticultural sciences can best be integrated across the unit to achieve maximum contributions to all three missions within Agronomy & Horticulture. We look forward to this being accomplished in January and February 2014.

Response to Specific Review Team Recommendations: Weed Science

Team Recommendation:

Increase weed science expertise on campus both in extension and research/teaching. A campus-based weed science research position could focus on herbicide physiology, evolution of herbicide resistance, or invasive plant ecology and evolutionary biology.

As a group, formulate a strategic plan to outline involvement in the Water for Food Institute and Innovation Campus.

Develop proposals for AFRI Weedy and Invasive Species program or other federal funding opportunities to broaden research scope.

If graduate level Weed Science classes cannot be offered by campus or Extension Center faculty, provide alternative strategies for students to receive needed course work.

Department Response:

Additional faculty in research/extension has been recruited and hired.

Specific Timeline:

A research/extension faculty member started in August 2012.

Development of a strategic plan for weed science will be discussed during 2013, contributing towards the departmental strategic planning retreat in fall 2013.

IANR Deans' Council Response:

Development of a strategic direction associated with weed science is required, especially in consideration of new faculty hires with expertise in this area. As with faculty focused on the horticultural sciences, a new thematic interdisciplinary structure in the department might mean that the weed science faculty could have a unified vision for some aspects of the academic mission (for example, weed science curricular content), but other mission areas might not require such unification. If faculty with weed science expertise incorporate themselves across different research teams, they would not necessarily need to develop a unified "weed science" research vision, as long as each thematic research team develops objectives appropriate to the research questions being addressed.

Response to Specific Review Team Recommendations: Soil and Water Science

Team Recommendation:

Utilize documents such as the ERS report on Nitrogen in Agricultural Systems and the EPA Science Advisory Board's report on reactive nitrogen to inform future research strategies on nitrogen management.

Coupling the production and environmental aspects of nutrient management is encouraged and where appropriate other needed expertise on campus should be sought.

Department Response:

Current research and educational programming address reactive nitrogen in the environment, and faculty collaborate significantly across UNL units in such efforts. For example, current research by dept. faculty includes collaboration with faculty in Biological Systems Engineering, School of Natural Resources, Animal Science, Agricultural Economics, and Computer Science and Engineering, among others. In addition, other agencies and organizations, particularly NRDs and NRCS, are involved with department faculty in such efforts. Peer group members will continue to seek opportunities for collaborative

research & educational efforts related to nutrient management. The Soil & Water Peer Group will review the ERS and EPA reports relative to reactive nitrogen for potential refinement in research objectives and educational programming.

Specific Timeline:

Collaborative research and educational programming – on both production and environmental aspects of nutrient and water management – is on-going with other UNL units and external agencies and organizations. The Soil & Water Peer Group will review the ERS and EPA reports by the end of 2013 for potential refinement in research and educational objectives. Strategic planning discussions will occur within the peer group through 2013, contributing to the departmental strategic planning retreat in fall 2013.

IANR Deans' Council Response:

Earlier comments made relative to other sub-disciplinary areas are also applicable in the Soil & Water/Nutrient Management areas. It is key that if new departmental structures are developed (or even if current structures are retained), that each faculty member and faculty groups consider what needs to change and what needs to be maintained in order to best meet the department's Extension, research and instructional responsibilities.

Response to Specific Review Team Recommendations: Turf, Range & Forage Sciences

Team Recommendation:

The Range and Forage portion should consider moving to the School of Natural Resources to more closely align with their research, extension, and teaching interests.

Landscape Design, Landscape Management, and Turf should be combined into this peer group.

Sustainable, low input native landscapes are increasing in popularity and this group seems poised to make significant contributions.

Department Response:

Moving faculty SNR appears to be logical on the surface. The understated strength of the range and forage faculty in Nebraska is their close relationship with animal production systems and significant collaboration with the department of Animal Science, as well as faculty in SNR. In 2012, a faculty member modified his position to be jointly associated with SNR and the department. This may be the initial step in further enhancing collaboration with SNR without compromising the group's close connection with production agriculture. Turf is already in the peer group and Landscape Design & Management are more closely aligned with Horticulture (i.e. OHLED). Sustainable landscapes have always been and will continue to be a strength of the department.

Specific Timeline:

No significant action appears needed by the department other than acknowledgment of the recommendation. Strategic planning discussions will occur within the peer group to contribute to the fall 2013 departmental strategic planning retreat.

IANR Deans' Council Response:

We agree that a formal move between units is not essential. Continued strengthening of collaborations between faculty in animal science, agronomy and horticulture, SNR, and the various R&E Centers relative to range, forage, and grassland ecosystem health is an expectation.

Response to Specific Review Team Recommendations: Plant Physiology and Production Ecology

Team Recommendation:

Identify specific ways to leverage the trust and relationships of stakeholders to champion needs for expanded crop management research and extension support. (Example: Soybean growers group appears interested in endowment to support soybean extension specialist).

Embrace creative ways that the Water for Food Institute positions can be leveraged to fulfill and enhance crop simulation modeling and cropping systems research capacity. Implement farm-scale, spatial trials as a component of this cropping systems research.

Package research results in highly accessible ways that show impact with clientele.

Prepare USDA and NSF proposals for plant physiology research in the context of relevant issues and innovative

science directions such as climate change and systems biology.

Department Response:

The PPPE peer group will identify one member as a liaison with the major commodity groups in Nebraska (corn, soybean, sorghum, wheat, dry beans). These faculty will strive to attend all meetings of their assigned commodity board. These liaisons will increase interaction and build positive relationships and support within commodity groups.

The PPPE peer group will participate in WFI faculty position interviews as schedules permit, and will seek opportunity to collaborate. Peer group members will also work towards building capacity for field-scale studies as a component of their cropping systems research.

The peer group will explore ways to increase interaction among research and extension faculty to ensure sharing of information, and will strive to package research results for use in Crop Production Clinics, Extension publications, CropWatch and other venues.

The peer group will work at increasing interaction with plant physiologists in other peer groups and units to increase expertise in basic plant physiology, with a goal of successful grant applications to USDA and NSF.

Specific Timeline:

Participation in WFI faculty interviews occurred through 2012. Opportunities for interaction with WFI-associated faculty are currently developing; the WFI systems agronomist position is in recruitment in June 2013.

Increased efforts at field-scale studies, and increased publication of research results in Extension media is on-going. Peer group strategic planning discussions will occur through 2013, to contribute to the fall 2013 departmental strategic planning retreat.

IANR Deans' Council Response:

Developing strong relationships with commodity groups is an excellent way to communicate the value of your work and to obtain feedback on your strategic direction. For commodity crops, Jeff Noel in the ARD office is the official IANR representative.

Those faculty in the WFI cluster, and other new hires across IANR, offer a tremendous opportunity for many research, extension and instructional teams in Agronomy and Horticulture. There is a strong expectation that with this new expertise, departmental programs across all three missions will be synergized and become even more productive/impactful. Departments and the IANR Leadership Team have a tremendous obligation to make certain that the potential envisioned by this new influx of talent is realized.

The impact of our 3 missions is greatly enhanced when there is a purposeful plan for integration and communication between all faculty, and faculty with Extension Educators.

Response to Specific Review Team Recommendations: Plant Breeding, Genetics & Molecular Biology

Team Recommendation:

This group should be the US leader for understanding the molecular biology, biochemistry, physiology, breeding, and agro-ecosystems that maximize water and nitrogen use efficiency. There is a commonality and diversity of adaptations that should inform all the systems, i.e. corn (C4- high yielder), sorghum (C4 – low water), soybean (N champion), wheat (C3 – modest input), native grasses (diverse N and water adaptations), grape (woody with fascinating water relations). Soil scientists and molecular biologists should be investigating metagenomics and biological dynamics of Nebraska soils. The remote sensing tools in the department should be integrated throughout the species and field trial portfolio.

Genomic selection should be fully integrated across the entire group for all species especially the long- lived and minor species, including closer interactions with ARS scientists working on forage and bio-fuel grasses.

Global Plant Breeding Institute (GPBI)

- Excellent concept. Need to do a market analysis on companies to really find out if this is the right format.
- Should UNL consider a collaboration with ISU, NCSU, Cornell, etc.?

Department Response:

The plant breeding programs are a strength of the department and are attracting outstanding students. Integration of programs from lab to cultivar and continued interaction and collaboration with disciplines within and external to the department needs continued support and development – this includes native traits and genomic selection as well as transgenic and associated regulated material handling processes. The vision for the Global Plant Breeding Institute is to be an umbrella organization for coordination of information and resources for students and others interested in plant breeding. The peer group needs to develop a full complement of courses, which the collaborations, as described, as well as others, would help to provide. Needed resources include appropriate cutting edge technology for course delivery and position support. A major success in 2012 was the overwhelming response of an industry partnership resulting in instruction being offered in a certificate and graduate distance program. There are currently more than 125 students working towards both objectives.

Specific Timeline:

Response to team recommendations relative to this peer group is on-going. The IANR vision for increased faculty arising from strategic investment will result in significant enhancement of expertise and course offerings related to this peer group, including bioinformatics and stress biology. Associated infra-structure needs will be addressed. The GPBI efforts in distance education have already generated significant student learning opportunities as well as income generation to facilitate staffing needs. Peer group strategic planning discussion in 2013 will contribute towards the fall 2013 departmental strategic planning retreat.

IANR Deans' Council Response:

We are supportive of these efforts; many of our earlier observations are relevant to this section. Hopefully, the retreat will help the faculty identify a few significant and impactful new initiatives or identify opportunities to deepen efforts associated with ongoing activities.

Response to Specific Review Team Recommendations: Undergraduate and Graduate Education

Team Recommendation:

Integrate quantitative skills throughout the entire curriculum. GIS should be a required course for all majors; the department reported that it is difficult to get into the courses and that the equipment is old. The department or Institute should invest resources into a course.

Because of the department's size and diverse programs it should undertake a self-study to identify program duplications or omissions as well as to help create collegiality and unity towards common goals.

The Department needs to establish a sound multi-course common curriculum for incoming undergraduate students.

On line student registration needs prerequisite enforcement.

The review team evaluated the Horticulture Ph.D. program to determine if this program is viable. The review team recommends that the Horticulture Ph.D. program be terminated.

Consider using at least some GRA funding for strategic investments. For example, assisting faculty interested in redirecting their research area.

Institute some competitive GRA funding that would provide a 50/50 cost share or consider cost sharing GRA student funding on grants.

Recruit students from non-traditional sources such as liberal arts colleges. Incentivize recruitment of the best students with "signing bonuses".

Encourage faculty to seek federal funding to support graduate education, for example NIFA pre-doctoral fellowships.

Publish a firm deadline for graduate applications.

Keep GRA allocation as a responsibility for the department head, allowing him/her the resources to build the program. The department has maintained GRA funding

Department Response:

We agree that geo-spatial thinking needs to be more broadly incorporated into instruction at all levels. We currently do not have faculty prepared to primarily focus on such instruction, other than GIS which is taught as part of AGRO431, Site-Specific Crop Management. We will discuss with SNR and other units ways to increase GIS instruction across IANR.

The Curriculum Committee is engaged in an on-going review of course duplication or omission, as well as ways to provide a more comprehensive curriculum for incoming undergraduate students.

The Horticulture PhD program was combined with the Agronomy program in 2012.

The Graduate Committee is currently evaluating revision of procedures to allocate GRA resources, including suggestions from the Review Team. The reality is that with the current policy of allocating new faculty a GRA as part of their start-up package, and recent and anticipated new faculty additions in 2013 and 2014, any other use of GRA resources is several years away. The Committee has also considered a firm deadline for graduate applications, with no recommendation for change in the current open application policy, as there are advantages to some programs to not having a specific deadline for application.

Specific Timeline:

Concern about GIS education within the department and IANR may be partially addressed with new faculty hires in 2013 and 2014. We will also have the Curriculum Committee specifically investigate in 2013 ways to incorporate geo-spatial concepts into more courses.

The Horticulture PhD program was combined with the Agronomy program in 2012.

The Curriculum Committee is currently evaluating revisions in curricula to address issues raised by the Review Team.

The Graduate Committee is currently evaluating use of GRA resources. However, due to allocation of GRA positions to new faculty, we anticipate no other use of GRA resources for several years.

IANR Deans' Council Response:

We encourage the curriculum committee to continue efforts to evaluate the curriculum as a periodic and regular activity. If the faculty determine that additional GIS curricular content is important, consider using a guest lecturers, distance education modules (if available) or even providing opportunities for existing faculty to receive additional training to supplement their GIS skills.

Even though your GRA resources are obligated for the next few years, it will be far easier to consider and develop a strategic approach to GRA allocation now rather than just prior to having additional funding flexibility.

We look forward to hearing about the specific and concrete actions taken by the faculty in response to the review team's recommendations by January–February 2014.

Response to Specific Review Team Recommendations: Extension

Team Recommendation:

The department needs to enhance extension efforts in corn and soybean cropping systems with strategic hires.

Extension specialists need to take the lead for translating departmental research results into a format that can be utilized by extension educators and others. This should include use of digital tools for sharing the most relevant, timely information with state and national growers/citizens (video, web, apps, etc.).

Department Response:

Discussions are on-going between IANR and Corn and Soybean Boards relative to hiring a soybean & corn cropping systems specialist based in southeast Nebraska.

We agree, Specialists (and other researchers) should convey new research and revised recommendations to clientele in a timely manner. Faculty will work closely with support staff in Education Media and other units to provide up-to-date resources. Currently several web-based or app- based resources are in development by our faculty.

Specific Timeline:

We anticipate recruiting for a soybean/corn cropping systems agronomist in 2013 or early 2014.

Efforts are on-going by faculty to provide up-to-date Extension resources. We will develop a more integrated approach across the department to meeting Extension needs – particularly in the area of publications and electronic media.

IANR Deans' Council Response:

Cropping systems agronomists (two) were hired as part of "phase one" of the IANR strategic hiring process.

We encourage Agronomy and Horticulture to work with Extension Administration, Extension Educators, and Extension Specialists to fully assess clientele needs given the rapidly changing and increasingly sophisticated agricultural production systems used in Nebraska. Clientele have a wealth of educational resources available; the best use of University resources would be to identify/reaffirm the role Extension has in providing unbiased educational research-based information that is not available elsewhere and/or to help our clientele intelligently sift through the wealth of information created by both the private and public sectors. The role Extension plays to help educate private sector information providers (consultants) should be embraced, as should Extension's role in education of under-served populations. With clear objectives for Extension curriculum development and programing, Agronomy and Horticulture can then best determine how to integrate its approach to information delivery.

Brief Summary of other Recommendations:

The team recommended that a Staff Advisory Council similar to the current Faculty Advisory Council should be established. Quarterly staff meetings should be instituted with the Department Head and the Staff Advisory Council.

Department Response:

An elected Staff Advisory Committee was established in 2012. The committee meets quarterly, with the Associate Head in attendance.

We believe that most other review team recommendations have been addressed and either implemented or planning is in place for implementation.

Unit Review Conclusions

The review was a positive and constructively critical experience. Recommendations were predominantly on-target and will provide a strong foundation for planning and vision of the department for the next five years and beyond. Specific over-arching conclusions of the review were:

- The department is doing very good work. However, there does not appear to be a shared vision or direction; significant progress towards a cohesive departmental vision will be a targeted outcome for 2013.
- Support staff reported feeling disconnected and the formation of a staff advisory committee in 2012 has resulted in greater connection and cohesiveness among staff.
- The relative size and diversity of the department has advantages and also presents significant challenges related to cross-departmental, faculty-driven initiatives.

We recognize that the Department of Agronomy and Horticulture is a successful and productive unit. Given the importance of plant agriculture in Nebraska, our citizens and students rightfully have very high expectations that the Department be considered one of the top 3 in the nation. This requires development of a very clear vision and greater integration/collaboration between and among the basic and applied research, instructional, and Extension resources in the plant sciences across all of IANR and UNL.