

Javed Iqbal, Ph.D.

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Education:

2006-2009	Ph.D. Soil Science, Huazhong Agriculture University, Wuhan, China
2004-2006	M.Sc. Soil Science, University of Agriculture, Faisalabad, Pakistan
2000-2004	B.Sc. Soil Science, University of Agriculture, Faisalabad, Pakistan

Professional Experience:

2019-present	Assistant Professor, Department of Agronomy and Horticulture, University of Nebraska-Lincoln, Lincoln NE, USA
2016-2019	Research Soil Scientist, Sustainable Agroecosystems Group, Department of Agronomy, Iowa State University, Ames IA, USA
2011-2016	Post-doctoral Research Scientist, Sustainable Agroecosystems Group, Department of Agronomy, Iowa State University, Ames IA, USA
2009-2011	Post-doctoral Research Scholar, Grassland Ecology Laboratory, Department of Plant and Soil Sciences, University of Kentucky, Lexington KY, USA
2006-2009	Graduate Research Assistant, College of Resources and Environment, Huazhong Agriculture University, Wuhan, China

Honors:

- Excellence in Ph.D. Dissertation award 2009. Huazhong Agricultural University (HZAU), China.
- Excellence in Provincial Ph.D. Dissertation award 2009. Hubei province, China.
- National Excellence in Ph.D. Dissertation Nomination Prize 2010. Huazhong Agricultural University.
- Ph.D. Fellowship 2006-2009. Ministry of Education, Pakistan and Chinese Scholarship Council, China.

Teaching Experience:

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| 2013-2015 | Undergraduate teaching for Agron-154: <i>Fundamentals of Soil Science</i> , Iowa State University, Department of Agronomy. |
| 2013-2015 | Undergraduate teaching for Agron-155: <i>Soils for Horticultural Scientists</i> , Iowa State University, Department of Agronomy. |

Certifications:

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| 2015-2017 | Certified Crop Advisor (CCA) |
| 2014-2015 | The certificate of “ <i>Center for the Integration of Research, Teaching and Learning Associate</i> ” at Iowa State University, Ames IA USA, 2014-2015. |

Research Grants

- Iowa Soybean Association. High-yield soybean trials and real-time forecasting at regional scale, co-PI, \$240K, 2017-2020.

Publications:

- 24 peer reviewed international publications; >800 citations; h-index=15
- 18 (3 invited) oral and poster presentations at conferences and workshops.
- 1 extension publication

Peer Reviewed Publications:

- Iqbal J**, Necpalova M, Archontoulis SV, Anex RP, Bourguignon M, Herzmann D, Mitchell DC, Sawyer JE, Zhu Q, Castellano MJ. 2018. Extreme weather-year sequences have non-additive effects on environmental nitrogen losses. *Global Change Biology* 24, 303-317.
- Ordóñez RA, Castellano MJ, Hatfield JL, Helmers MJ, Licht M, Liebman M, Dietzel RN, Martinez-Feria R, **Iqbal J**, Puntel LA, Cordova C, Togliatti K, Wright E, Archontoulis SC. 2018. Corn and Soybean root front velocity and maximum depth in the Midwest USA. *Field Crop Research*, 215: 122-131.
- Shahbaz AK, Lweinska K, **Iqbal J**, Ali Q, Rahman M, Iqbal, M, Abbas F, Tauqeer HM, Ramzani PMA. 2018. Improvement in productivity, nutritional quality, and antioxidative defense mechanisms of sunflower (*Helianthus annuus* L.) and maize (*Zea mays* L.) in nickel contaminated soil amended with different biochar and zeolite ratios. *Journal of Environmental Management*, 218: 256-270.

- Iqbal J**, Mitchell DC, Barker DW, Miguez F, Sawyer JE, Pantoja J, Castellano MJ. 2015. Does nitrogen fertilizer rate to corn affect N₂O emissions from the rotated soybean crop? *Journal of Environmental Quality*, 44:711-719.
- Iqbal J**, Parkin TB, Helmers MJ, Zhou X, Castellano MJ. 2015. Denitrification and N₂O emissions in annual croplands, perennial grass buffers and restored perennial grasslands. *Soil Science Society of America Journal* 79; 239-250.
- Necpálová M, Anex RP, Fienen MN, Del Grosso SJ, Castellano MJ, Sawyer JE, **Iqbal J**, Pantoja J, Barker D. 2015. Understanding the DayCent model: calibration, sensitivity, and identifiability through inverse modeling. *Environmental Modelling and Software* 66,110-130.
- Iqbal J**, Castellano MJ, Parkin TB. 2014. Accuracy and precision of no instrument is guaranteed: A reply to Rosenstock et al. *Global Change Biology* 20, 1363-1365.
- Iqbal J**, Castellano MJ, Parkin TB. 2013. Evaluation of photoacoustic infrared spectroscopy for simultaneous measurement of N₂O and CO₂ gas concentrations and fluxes at the soil surface. *Global Change Biology* 19, 327-336.
- Iqbal J**, Nelson J, McCulley RL. 2013. Fungal endophyte presence and genotype affect plant diversity and soil-to-atmosphere trace gas fluxes. *Plant and Soil* 364-15-27.
- Shan L, **Iqbal J**, Ronggui H, Shaan M, Cai J, Chen X. 2013. Nitrous Oxide emission from yellow brown soil as affected by incorporation of crop residues with different carbon to nitrogen ratios: A case study in central China. *Archives of Environmental Contamination and Toxicology*. 10.007/s00244-013-9903-7.
- Ibrahim M, Cao CG, Zhan M, Li CF, **Iqbal J**. 2013. Changes of CO₂ emission and labile organic carbon as influenced by rice straw and different water regimes. *International Journal of Environmental Science and Technology*. 10.1007/s13762-013-0429-3.
- Nkwopara U, Ibrahim M, Maha A, **Iqbal J**, Qingling F, Jun Z, Guanjie J, Hongqing H. 2013. Impacts of inorganic ions and temperature on lead adsorption onto variable charge soils. *Catena* 109, 103-109.
- Ahamadou B, Qiaoyun H, Lin Y, **Iqbal J**. 2013. Composition and structure of humic substances in long-term fertilization experimental soils of southern China. *Journal of Soil Science and Environmental Management* 4(4), 77-86.
- Iqbal J**, Shan L, Ronggui H, Feng ML, Liu R. 2013. CH₄ oxidational potential of different land uses in mid-subtropical China. *Pedosphere* 23(5), 609-619.
- Iqbal J**, Siegrist AJ, Nelson J, McCulley RL. 2012. Fungal endophyte infection increases carbon sequestration potential of southeastern USA tall fescue stands. *Soil Biology and Biochemistry* 44, 81-92.
- Shan L, **Iqbal J**, Ronggui H, Leilei R, Wu J, Zhao J, Wang P. 2012. Differences in nitrous oxide fluxes from red soil under different land uses in mid-subtropical China. *Agriculture, Ecosystem and Environment* 146, 168-178.
- Shan L, **Iqbal J**, Ronggui H, Jinshui W, Zhao J, Leilei R, Malghani S. 2011. Nitrous oxide emissions from rape field as affected by nitrogen fertilizer management: A case study in central China. *Atmospheric Environment* 45, 1775-1779.

- Iqbal J**, Ronggui H, Minglei F, Shan L, Saadatullah M, Ibrahim MA. 2010. Microbial biomass, and dissolved organic carbon and nitrogen strongly affect soil respiration in different land uses: A case study at Three Gorges Reservoir Area, South China. *Agriculture, Ecosystem and Environment*, 137, 294-307.
- Shan L, **Iqbal J**, Ronggui H, Minglei F. 2010. N₂O emissions from different land uses in mid-subtropical China. *Agriculture, Ecosystems and Environment* 136, 40-48.
- Minglei F, Ronggui H, Shan L, Saadatullah M, **Iqbal J**, Ryusuke H. 2010. Influence of land use on nitrate concentrations in baseflow in a rural watershed of Three Gorges Reservoir Area, China. *Journal of Food, Agriculture and Environment* 8 (1), 132-137.
- Iqbal J**, Ronggui H, Shan L, Ryusuke H, Minglei F, Lu L, Ahamadou B, Lijun D. 2009. CO₂ emission in a subtropical red paddy soil (Ultisol) as affected by straw and N-fertilizer applications: A case study in Southern China. *Agriculture, Ecosystems and Environment* 131, 292-302.
- Iqbal J**, Ronggui H, Shan L, Ahamadou B, Minglei F. 2009. Carbon dioxide emissions from Ultisol under different land use types in mid-subtropical China. *Geoderma*, 152-63-73.
- Iqbal J**, Shan L, Ronggui H, Minglei F. 2009. Temporal variability of soil CO₂ and CH₄ fluxes from different land uses in mid-subtropical China. *Atmospheric Environment*, 43-5865-5875.
- Iqbal J**, Ronggui H, Lijun D, Lan L, Shan L, Tao C, Leilei R. 2008. Differences in soil CO₂ flux between different land use types in mid-subtropical China. *Soil Biology and Biochemistry* 40, 2324-2333.

Extension Publications:

- Castellano M, **Iqbal J**, Helmers M, Strock J. 2014. Crop and soil management effects on greenhouse gas emissions from corn based systems. Contributed papers from the 5th Soil and Water Management Field Day 23 July 2014, Lamberton, Minnesota.

Invited Presentations:

- Measuring greenhouse gases, 3rd Annual Sustainable Corn Meeting, Resilient Agriculture: Adapting to a Changing Climate, Agronomy and Extension Farm Ames IA, Field Day Aug 7 2014.
- Spatial variability of corn and soybean yields in Iowa counties. Iowa State University GIS lab. Dec 10 2014.
- Soil N₂O and CO₂ flux measurements by photoacoustic infrared spectroscopy. Climate and Corn-based Cropping Systems Project Annual Meeting, Chicago, IL. 2011.

Conference Abstracts and Presentations:

- Iqbal J**, Castellano JM, Archontoulis SV. 2018. Impacts of tile drainage on N dynamics in Southeast Iowa. Climatology and Modelling II, *ASA-CSSA International Annual Meetings*, Nov 4-7, 2018, Baltimore, MD, USA.
- Iqbal J**, Castellano JM, Nelpalova M, Archontoulis SV, Sawyer JE, Herzmann D, Anex RP. 2016. Extreme precipitation years impact soil N loss in Mid-west corn-soybean cropping system. Environmental Quality, *ASA-CSSA-SSSA International Annual Meetings*, Nov 6-9, 2016, Phoenix, AZ, USA.
- Archontoulis SV, Dietzel RN, Castellano JM, VanLoocke A, Antonio-Ordonez RA, **Iqbal J**, Puntel L, Cordova SC, Martinez-Feria RA, Togliatti K, Huber I, Herzmann D, Helmers MJ. 2016. Forecasting and assessing cropping systems (FACTS). Climatology and Modelling, *ASA-CSSA-SSSA International Annual Meetings*, Nov 6-9, 2016, Phoenix, AZ, USA.
- Iqbal J**, Castellano JM, Helmers MJ, Parkin TB, Kladvko EJ. 2015. Nitrous oxide emissions as affected by drainage design and management in corn based cropping systems. Soil & Water Management & Conservation, *ASA-CSSA-SSSA International Annual Meetings*, Nov 15-18, 2015, Minneapolis, MN, USA.
- Iqbal J**, Mitchell CD, Barker WD, Miguez F, Sawyer EJ, Pantoja J, Castellano JM. 2014. Can nitrogen fertilizer applied to corn affect N₂O emissions the following year from a corn-soybean rotation in US Midwest? Soils and Environmental Quality, *ASA-CSSA-SSSA International Annual Meetings*, Nov 2-5, 2014, Long beach, CA, USA.
- Osterholz WR, Castellano MJ, Liebman M, **Iqbal J**. 2014. Increasing Rates of Gross Nitrogen Mineralization in Diversified Midwestern Cropping Systems. In: Managing Microbial Communities and Processes in Organic, Transition and Hybrid Agroecosystems: II. *ASA-CSSA-SSSA International Annual Meetings*, Nov 2-5, 2014, Long beach, CA, USA.
- Iqbal J**, Castellano M, Helmers M, Parkin BT, Xiaobo Z. 2013. Nitrate Removal by Perennial Filter Strips in the Toeslope Of Cropland Watersheds. In: Nutrient Loss as Affected by Management, Soils and Environmental Quality, *ASA-CSSA-SSSA International Annual Meetings*, Nov 3-6, 2013, Tampa, FL, USA.
- Iqbal J**, Castellano M, Parkin BT. 2012. Evaluation of photoacoustic infrared spectroscopy for simultaneous measurement of N₂O and CO₂ gas concentrations and fluxes at the soil surface. In: *Challenges in Measuring Greenhouse Gas Emissions from soil*, *ASA-CSSA-SSSA International Annual Meetings*, Oct 21-24, 2012, Cincinnati, OH, USA.
- Iqbal J**, Nelson J, Carlisle E, McCulley R. 2011. Influence of fungal endophyte genotypes on plant diversity and soil-atmospheric trace gas fluxes. *ASA-CSSA-SSSA International Annual Meetings*, Oct 16-19, 2011, San Antonio, TX, USA.
- Iqbal J**, Ronggui H. 2010. CO₂ emissions with different soil organic pools and temperature sensitivity. Theme 5: *Impact of changing environmental controls on SOM dynamics; Organic matter stabilization and ecosystem functions*, 19th-23rd September 2010, Presqu'île de Giens (Cote d'Azur), France, pp 112.

- Iqbal J**, Ronggui H. 2010. Soil respiration in association with soil organic carbon fractions from different landuses. Theme 5: *Impact of changing environmental controls on SOM dynamics; Organic matter stabilization and ecosystem functions*, 19th-23rd September 2010, Presqu'île de Giens (Cote d'Azur), France, pp149.
- Iqbal J**, Ronggui H, Ibrahim MA, Saadatullah M. 2010. On the microbial biomass and dissolved organic substances dependence of soil Respiration. Theme 3: *Microbial communities as drivers of OM dynamics; Organic matter stabilization and ecosystem functions*, 19th-23rd September 2010, Presqu'île de Giens (Cote d'Azur), France, pp198.
- McCulley R, McNear D Jr, **Iqbal J**. 2010. Effects of endophyte symbiosis on belowground processes. *Joint Meeting of the Mycological Society of America and the International Symposium on Fungal Endophytes of Grasses* June 28-July 1, 2010, pp 68-69.
- Minglei F, Shan L, Ronggui H, **Iqbal J**. 2010. The impact of nitrogen fertilization on nitrogen concentrations in stream explored with subwatershed and contributing zone approaches. *CHINA-US Workshop on Sustainable Management of Soil and Water Resources*, January 5-8 2010, Shenyang, China.
- Iqbal J**, Ronggui H. 2009. Effect of dissolve organic carbon, soil and air temperature, and soil moisture on soil CO₂ flux in different land uses. *IOP Conference Series: Earth and Environmental Science*, Volume 6, pages 152006 (1pp).
- Iqbal J**, Ronggui H, Shan L, Minglei F. 2008. Changes in carbon dioxide emissions in red paddy soil in the context of straw and nitrogen fertilizer application. *International Workshop on Soil C Sequestration and Climate Change Mitigation in Agriculture*, Nanjing, China, October 22-27.

Extension Talks:

- Presented in-season N dynamics and impacts of planting date on corn yield and N use efficiency in Central Iowa. A field day on May 09, 2018. Agronomy Research Farm, Boone IA.
- Addressed soil nitrogen management challenges and their solutions to six separate groups of growers and scientists. A field day on Aug 7 2014. Agronomy and Extension Farm, Ames, IA

Other Professional Activities:

- SSSA Student and Early Career Task Force Member (2017-2019).
- Judged Graduate Students Poster in *The Soil Fertility, Plant Nutrition, and Soil/Plant Analysis division, ASA-CSSA International Annual Meetings*, Nov 4-7, 2018, Baltimore, MD.
- SSSA Early Career Professional Committee member (2015-2016).
- Judged Graduate Students Poster in *The Soil Carbon and Greenhouse Gas Emission community, ASA-CSSA-SSSA International Annual Meetings*, Nov 6-9, 2016, Phoenix, AZ.

- Organized Iowa FFA Soil Judging Contest at Iowa State University Agronomy Farm Ames IA, Oct 10 2015.
- Judged Graduate Students Poster in *Wetland Soils* division, *ASA-CSSA-SSSA International Annual Meetings*, Nov 15-18, 2015, Minneapolis, MN.
- Presided Biological Nitrogen Fixation section in *Soil Biology and Biochemistry* division, *ASA-CSSA-SSSA International Annual Meetings*, Nov 2-5, 2014, Long beach, CA.
- Judged Graduate Students Poster in *Soil Biology and Biochemistry* division, *ASA-CSSA-SSSA International Annual Meetings*, Nov 3-6, 2013, Tempa, FL.
- Peer reviewed research articles in *Global Change Biology*, *Soil Biology & Biochemistry*, *FEMS Microbiology Ecology*, *Plos One*, *Environmental Science & Technology*, *Soil Science Society of America Journal*, *Journal of Environmental Quality*, *Agronomy Journal*, *Geoderma*, *Plant and Soil*, *Agriculture, Ecosystem & Environment*, *Plant Physiology and Biochemistry*, *Australian Journal of Crop Science*, *Environmental Management*, *Soil Science & Plant Nutrition*, *Pedoshpere*, and *British Journal of Environment and Climate Change*.
- Competent Communicator in Toastmasters International Club.

Professional Membership:

2013-present	American Society of Agronomy
2013-present	Crop Science Society of America
2013-present	Soil Science Society of America