

Variable Rate Corn Seeding Study

Sarah A. Sivits

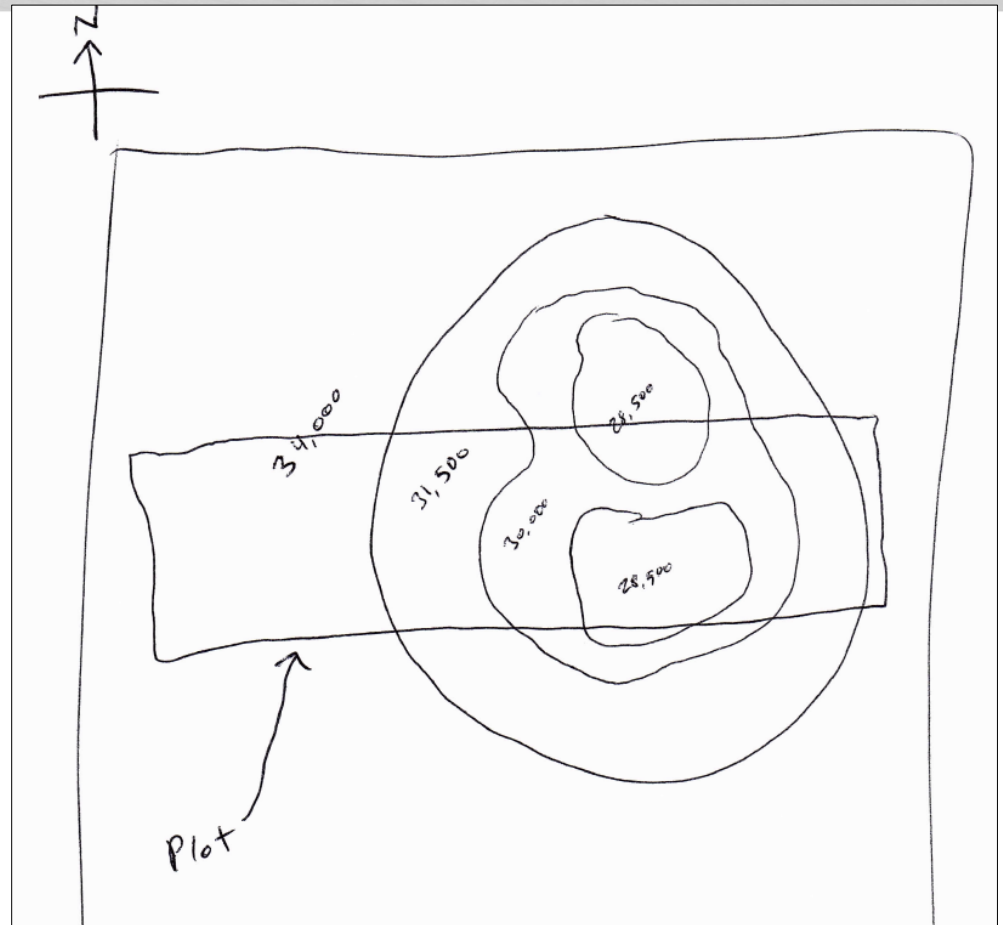
Cropping Systems Extension Educator
Dawson-Buffalo-Hall Counties

Background

- Factors
 - Hybrid selection
 - Soil texture
 - Field topography
 - Weather conditions
- Increasing efficiency
 - Interest in variable rate seeding
 - Right seed, right place
 - Precision planters

Field Site

- Sandy field near a river
- Field topography
 - Some low/high spots
- How to optimize yield?
- Question?
 - Variable vs flat seeding rate



Data Collected

- Early season stand counts
- Yield
- Moisture
- Net return

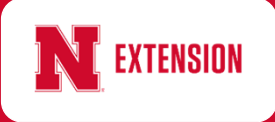


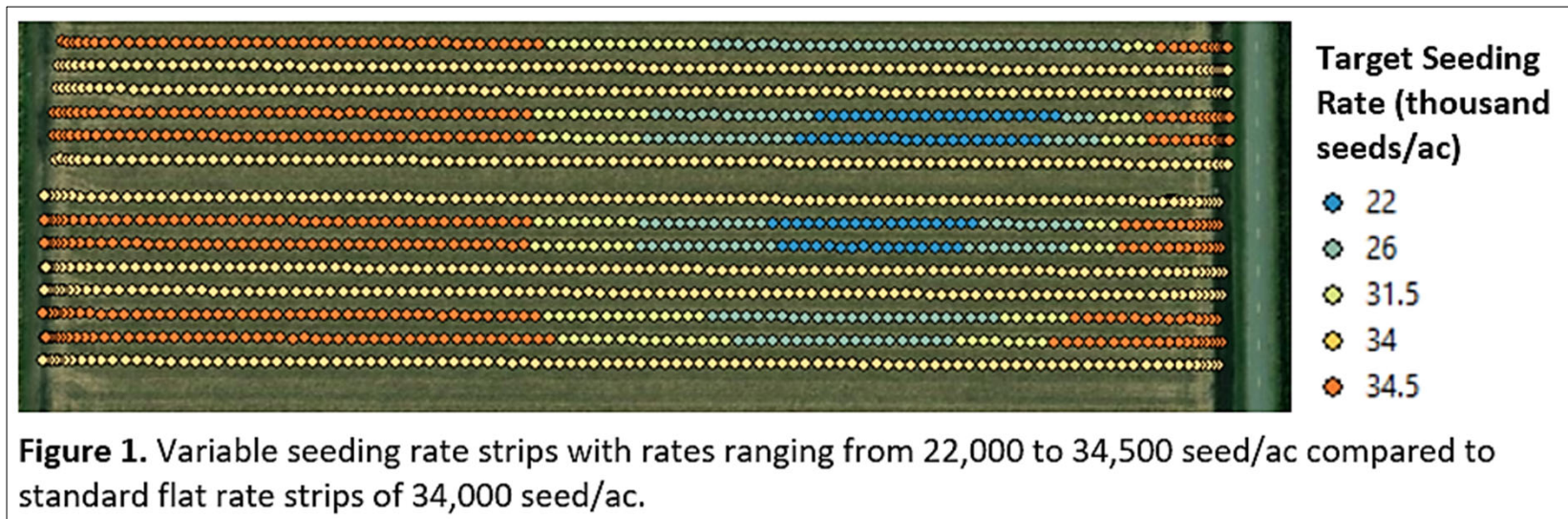
Nebraska Crop Management Conference

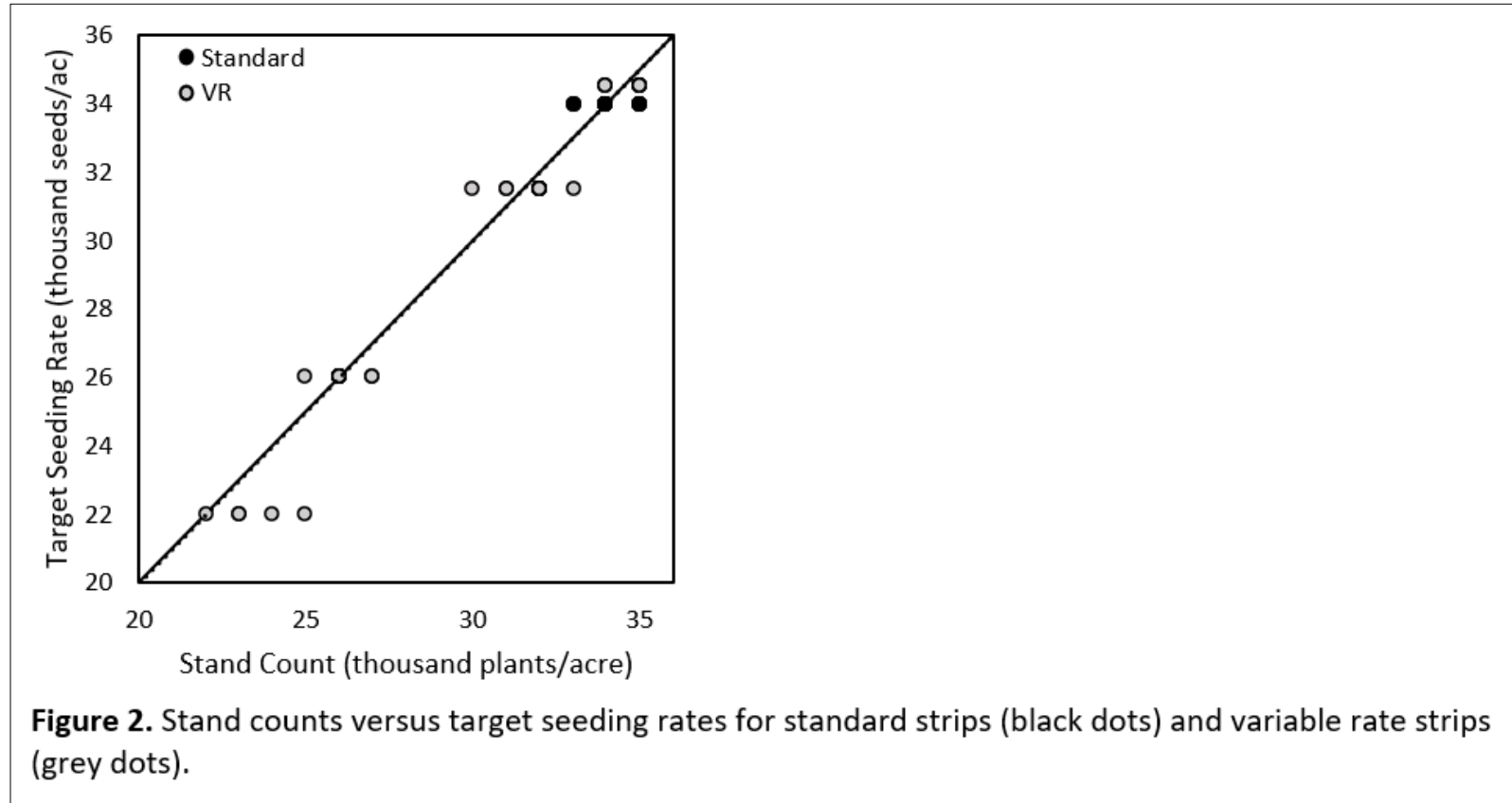
N EXTENSION



Nebraska Crop Management Conference







Results

	Moisture (%)	Yield (bu/ac) [†]	Marginal Net Return [‡] (\$/ac)
Standard Seeding	14.7 A*	231 A	792.89 A
VR Seeding	14.6 A	230 A	808.45 A
P-Value	0.419	0.924	0.268

*Values with the same letter are not significantly different at a 90% confidence level.

[†]Yield values are from cleaned yield monitor data. Bushels per acre corrected to 15.5% moisture.

[‡]Marginal net return based on \$3.51/bu corn and \$275/80,000 seeds.

	<u>Yield by Seeding Zone Analysis</u>		
	Low Zone (VR: 22,000 seed/ac vs. Standard: 34,000 seed/ac)	Mid Zone (VR: 31,500 seed/ac vs. Standard: 34,000 seed/ac)	High Zone (VR: 34,500 seed/ac vs. Standard: 34,000 seed/ac)
Standard Seeding	164 A	233 A	263 B
VR Seeding	165 A	228 A	266 A
P-Value	0.932	0.245	0.056

Summary

- No statistical difference in
 - Overall yield
 - Grain moisture
 - Net return
- Seeding rate impact on yield was evaluated in management zones.
- In the low and mid zones,
 - Lower seeding rates in VR strips similar to higher seeding rates in standard seeding strips
 - Opportunity to save on seed costs
- In the high zone,
 - Yield difference between VR and standard seeding (34,500 seed/ac versus 34,000 seed/ac)
 - It is unknown what would have caused this yield difference

Future Plans?

- Repeat study?
- Considerations
 - Weather conditions
 - Variety/hybrid selection
 - Optimum seeding rates

Resources

- Nebraska On-Farm Research Network
 - Website: <https://cropwatch.unl.edu/on-farm-research>
 - Publications (print or online)
- Virtual Field Days
 - Twitter: @OnFarmResearch
 - YouTube: Nebraska Extension On-Farm Research Network Channel
- CropWatch
 - Website: <https://cropwatch.unl.edu>



Question? Thank You!

Sarah A. Sivits

Cropping Systems Extension Educator

Dawson-Buffalo-Hall Counties

sarah.sivits@unl.edu

308-324-5501

@centralNE_crops

