

▶ R&E Goering Farms
Water
Technology Farm



*Governor's Conference on the
Future of Water in Kansas*



Water Technology Farm Objective

- Study reduced water application approaches through low pressure/low drift nuzzling packages
- Analyze low pressure/volume application methods to reduce 12 month electric “Demand Charges” from local utility.



Research Plan

- 1st-4th spans, Senninger Xi-Wobs as control at 1.0” per application
- 5th Span, Komet Twisters with 6lb regulators at 90% application rate
- 6th Span, Netafim Mobile Drip Irrigation at 80% application rate
- 7th Span, Senninger bubblers with shrouds at 80% application rate

Measured Application Results

- 1st-4th spans, Senninger Xi-Wobs as control at 0.75" per application
- 5th Span, Komet Twisters with 6lb regulators at 87% application rate
- 6th Span, mobile drip irrigation at 86% application rate
- 7th Span, Senninger bubblers with shrouds at 80% application rate

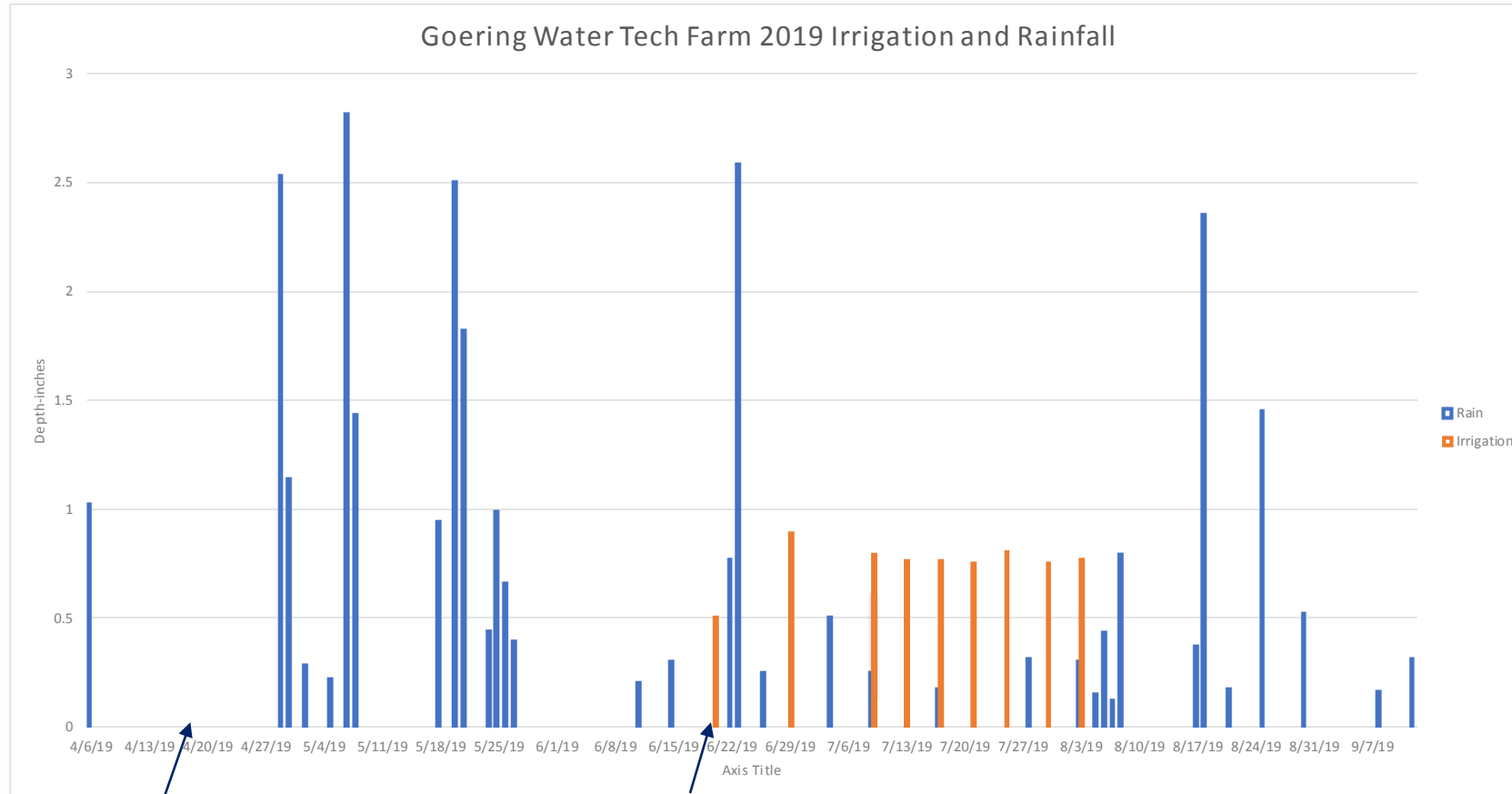


Water Application

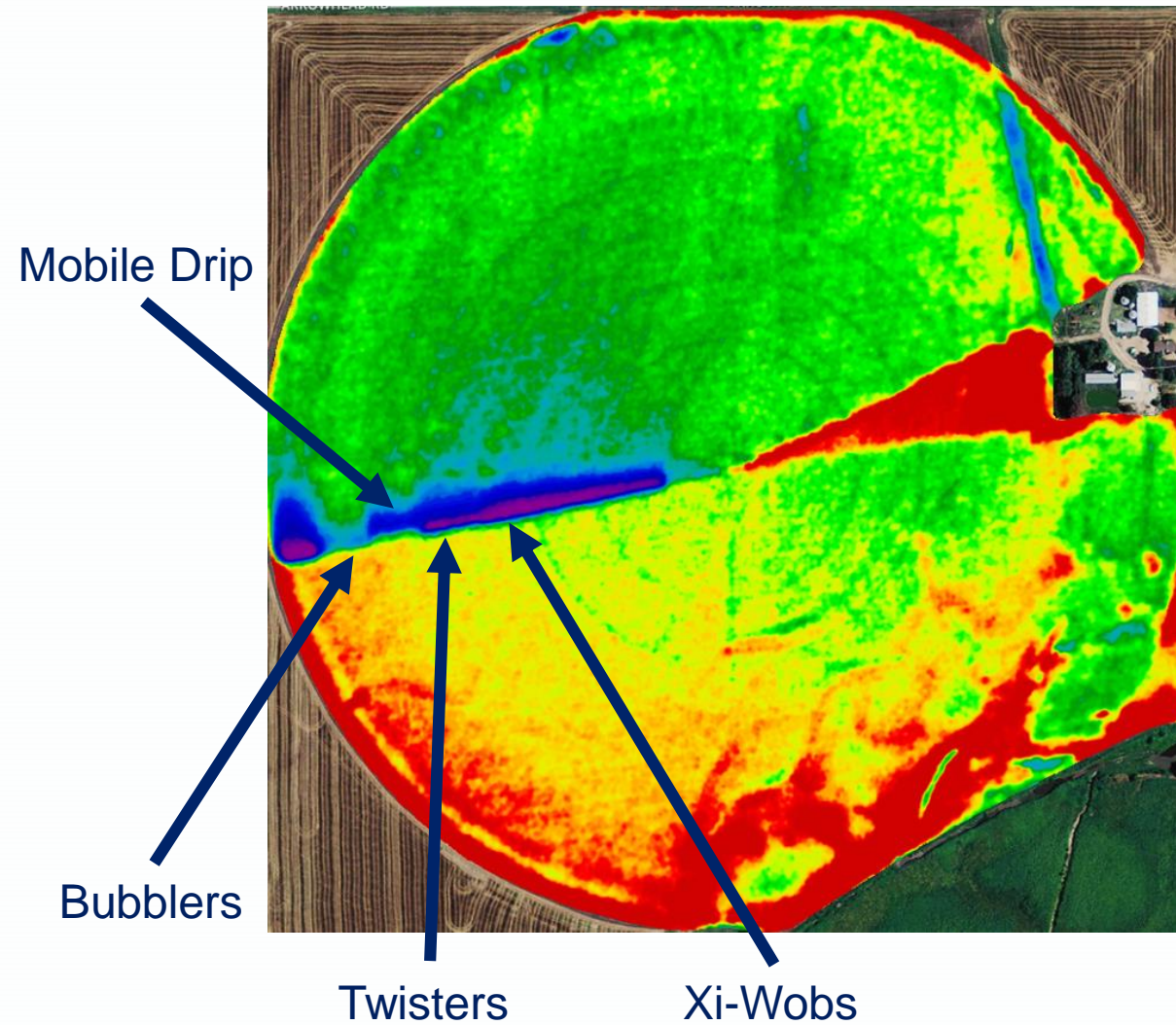
- **29.62 inches of rainfall from April 6th to September 12th**
- 8 full rate irrigation passes
 - (initial .5 inch application for testing)
- Control spans – 6.8” (0.75” /application)
- Mobile Drip & Twister – 5.8” (0.64” /application)
- Bubblers – 5.4” (0.60” /application)



2019 Irrigation and Rainfall Data

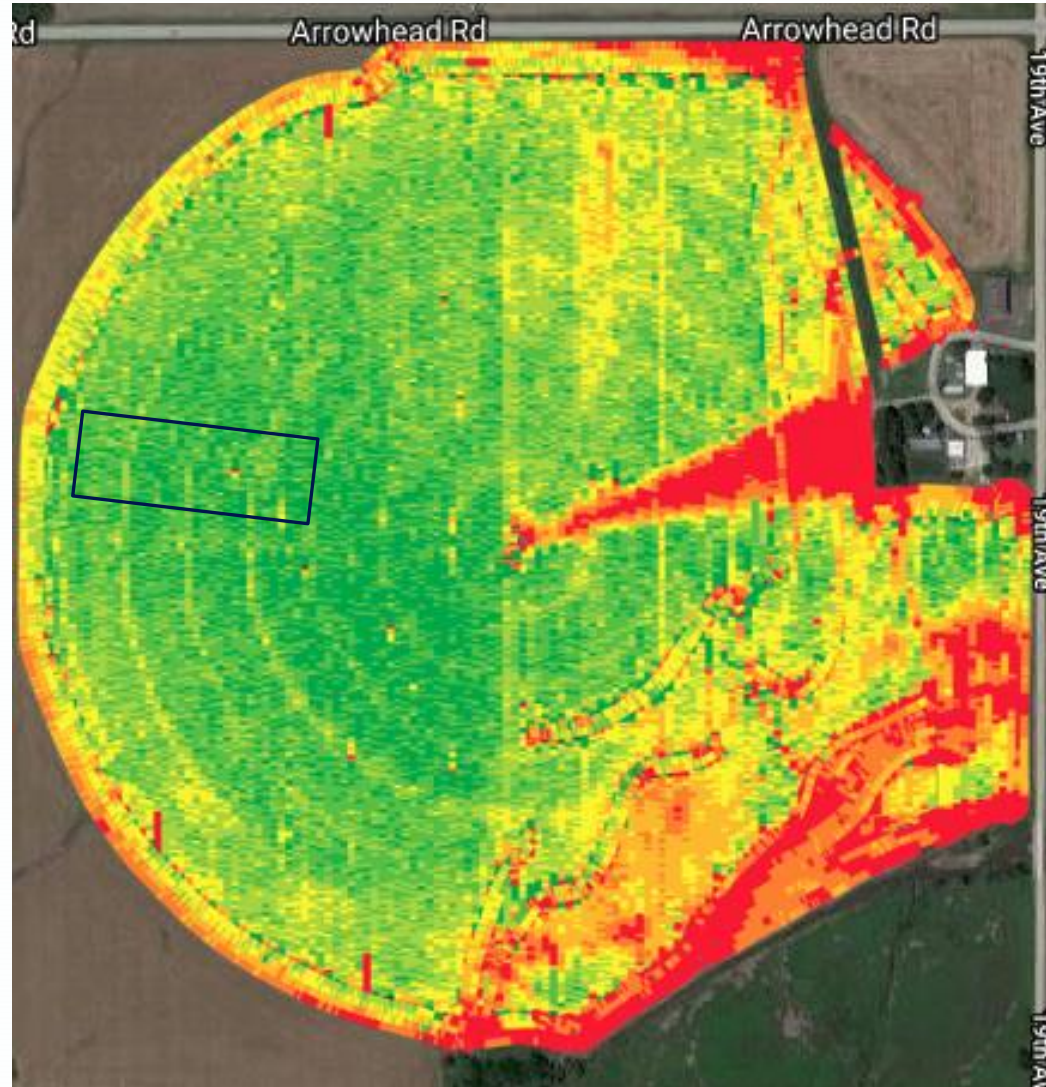


July 18 Ceres - Water Stress (Thermal)





2019 Corn Harvest Yield Map



Yield Results Samples Areas

- 4th span control - 255 bu/acre
- 5th Span, 87% rate - 246 bu/acre (96.5%)
- 6th Span, 86% rate - 247 bu/acre (96.8%)
- 7th Span, 80% rate - 240 bu/acre (94.1%)



Netafim - Mobile Drip Irrigation



Senninger – LDN Bubbler with Shroud

