



- Non-Drained
- Controlled Drainage with Subirrigation
- Irrigation Line
- Conventional Drainage
- Water Storage Reservoir
- Drain Tile
- Water Control Structure

Research Site Leader:
Kelly Nelson, University of Missouri



SITE CHARACTERISTICS

- Drainage system installed in 2009, Subirrigation added in 2015
- Soil: Blackoak silt loam
- Rotation: Forage (Winter Rye followed by Sorghum Sudan Grass; 2009-2014), Continuous Corn (2015)

WATER MANAGEMENT PRACTICES

- Non-Drained
- Conventional Drainage (depth 3', spacing 60')
- Controlled Drainage (depth 3', spacing 60' [2009-2014])
- Controlled Drainage with Subirrigation (depth 3', spacing 30' [2015-2018])

SITE MEASUREMENTS (2010-2018; n= # of years)

- Tile Flow (n = 4)
- Tile Water Quality: Nitrate-N
- Irrigation Flow
- Soil Texture (n = 1)
- Soil Bulk Density (n = 1)
- Hydraulic Conductivity
- Soil Fertility: pH, Cation Exchange Capacity, Neutralizable Acidity, SOM (n = 4)
- Soil Nitrate and Ammonium (n = 4)
- Crop Yield/Biomass (n = 4)
- Final Plant Population
- Total N: Vegetative (n = 4)
- Total N: Vegetative, Grain
- On-Site Weather Station: Precipitation, Air Temperature, Relative Humidity, Solar Radiation, Wind Speed and Direction (n = 4)