

## **Row Crop Studies**

The mission of the GSWRL row crop research is to develop technology and solutions for improved management of cropping systems. Our goal is to provide strategies for sustaining crop production and economics while minimizing impacts on the environment.

Novel precision agriculture technology is being developed to optimize use of soil, nutrient, and water resources for row crop production. Modern technology for airborne and ground-based robotic sensing will continue to guide crop management into the future.

Nutrient management studies are improving our understanding of carbon, nitrogen, and phosphorus balances in the soil. This will lead to improved nutrient management practices and opportunity for participation in carbon markets.

Alternative crops and cropping practices are being studied to provide producers with crop rotation options that avoid continuous corn. Examples of novel rotational crops include soybean and teff grass, while cotton also continues to be evaluated.



Current row crop research:

- Date of Seeding Trials
- Tillage Effects on Soil Health
- Precision Crop Management
- · Economics of Precision Ag
- Robotic Nutrient Application
- Drone-Based Crop Monitoring
- Precision Conservation

Stay up to date with ARS! Learn how we're solving major agricultural problems.

Grassland, Soil and Water Research Laboratory (GSWRL)



Agricultural Research Service

www.ars.usda.gov

