Effects of Various Cover Crops on Grain Yields, Weed Pressure, and Nitrogen Cycling in a Corn, Soybean, and Wheat Rotation to be Studied

Mike Stanek, Francisco Arriaga, Vince Davis, University of Wisconsin

It is hypothesized that the use of cover crops will increase nitrogen recovery, improve soil quality, and increase grain yields in a corn, soybean, and winter wheat crop rotation.

A field research plot will be designed containing up to 16 cover crops that will be planted in a randomized complete block design (RCBD) in three separate replicated field plots on two farms with similar soils. This treatment randomization will allow for easier identification of the different cover crops during a field day.

A major objective of the project is to provide information and data to answer local producer questions about yield increases for cash grain crops following various cover crops. Field days held at these cover crop plots will allow producers to view various types of cover crops in one location and compare what cover crops may improve their grain yields through nitrogen capture and cycling, and improved soil health. Another objective of this project is to produce localized crop guidelines and recommendations for crop rotations. The project has already achieved UW Badger Plots support and recognition. Badger Plots is a new UW-Extension and Outreach program designed to showcase on-farm research projects throughout the state of Wisconsin.