# ASSESSING THE IMPACT OF COVER CROPS ON SCN POPULATIONS IN FIELD CONDITIONS

#### **PROJECT SUMMARY**

This project is using five established cover crop fields throughout Illinois to determine how different types of cover crops affect soybean cyst nematode (SCN) populations. Insights will be used to provide the state's soybean farmers with improved management recommendations.

#### **INSIGHTS GLEANED TO-DATE**

- Fields infested with SCN continue to show high levels of reproduction on resistant varieties.

  This year we observed root systems of resistant varieties with more than 200 females as soon as 45 days after planting and throughout the season.
- Farmers should assess their fields and continue to ask their seed providers for varieties with new sources of resistance.
- Collection and analysis of data is still underway to determine the impact of cover crops on SCN populations.

## **QUESTIONS THIS PROJECT WILL ADDRESS**

- (?) How do different cover crops impact SCN populations?
- ? Could certain cover crops be used to suppress SCN populations?

#### WHY THIS RESEARCH IS IMPORTANT

- There are numerous types of cover crops that could fit into cropping systems across the diverse Illinois landscape. However, little is known about how the various species and varieties of cover crops influence population densities of SCN.
- This research project will investigate how SCN responds to different cover crops to provide additional guidance to farmers seeking to manage SCN populations.

### **HOW THIS RESEARCH BENEFITS THE FARMER**

Farmers who experience heavy or difficult-to-manage SCN populations can incorporate cover crops in their management practices. Researchers also hope to identify which soil microbes are linked to SCN suppression as another management option.



#### **DR. JASON BOND**

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Dr. Bond divides his time at SIU between research, teaching and service appointments. His research and teaching programs focus on disease management in Midwestern row crops. He also serves as the advisor for the Agronomy Society, which provides leadership and professional development opportunities for undergraduate and graduate students. His perfect weekend is when he can enjoy some of his favorite foods: chicken and sausage jambalaya, seafood gumbo, Midwestern steaks and Oberweis ice cream.

#### **RESEARCH TEAM**

- Dr. Ahmad Fakhoury, Professor of Plant Pathology, SIU
- Dr. Leonardo Rocha, Postdoctoral Researcher, SIU
- John Pike, Agronomist/Consultant, Pike Ag, LLC
- · Vitor Schwan, PhD Student, SIU

#### **TRIAL LOCATIONS**

- Statewide with emphasis on Southern Illinois



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