

WHAT TOOLS ARE AVAILABLE TO HELP DETECT AND MONITOR RED CROWN ROT ACROSS ILLINOIS SOYBEAN FIELDS?

**INFORMATIONAL SHEET** 

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# ADVANCED DETECTION AND MONITORING OF RED CROWN ROT IN IL SOYBEAN FIELDS USING REMOTE SENSING AND MACHINE LEARNING

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# **PROJECT SUMMARY**

Early detection of red crown rot (RCR) in soybean fields is critical in managing this disease that can cause up to 50 percent yield loss. However, manual and drone scouting can be time-intensive and costly. The research team will use both drone and satellite imagery to develop a disease detection model to help farmers and the industry better predict outbreaks and implement management practices.

# **TRIAL LOCATIONS**

# WHY THIS RESEARCH IS IMPORTANT

() Detecting RCR can be complicated as its symptoms are often confused with sudden death syndrome (SDS). Reporting and tracking the pathogen tends to be done at the county instead of state level, which also limits the ability to predict its spread.

# **HOW THIS RESEARCH BENEFITS THE FARMER**

A predictive model for RCR occurrence that also factors in environmental and cultural variables will provide farmers the ability to deploy more timely and targeted management practices. For example, they will be able to identify hot spots where a seed treatment may be a solution.



WesternSouthwestern

Goal is to cover as many counties as possible





# **CHECK OUT FIELD ADVISOR!**

See updates and learn more about this project, the research team and other projects at **FieldAdvisor.org**.

Contact the ISA agronomy team: agronomy-team@ilsoy.org.



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The Illinois Soybean Association (ISA) checkoff and membership programs represent more than 43,000 soybean farmers in Illinois. The checkoff funds market development, soybean production and government relations efforts, while the membership program, Illinois Soybean Growers (ISG) and the Illinois Soybean Growers PAC actively advocates for positive and impactful legislation for farmers at local, state and national levels. ISA upholds the interests of Illinois soybean farmers through promotion, advocacy, research and education with the vision of becoming a trusted partner of Illinois soybean farmers to ensure their profitability now and for future generations.

