



WHEN IS THE BEST TIME DURING THE SOYBEAN GROWTH STAGES TO CONDUCT TISSUE TESTING TO UNDERSTAND NUTRIENT NEEDS FOR MAXIMUM GRAIN YIELD?

INFORMATIONAL SHEET

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EVALUATING LEAF NUTRIENT TISSUE TESTING AND RELATION TO SOYBEAN GRAIN YIELD

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PROJECT SUMMARY

Because soybeans can remobilize nutrients from lower to newly developing nodes, more information is needed to understand which nutrients and in what quantities are made available to new nodes. This project uses tissue testing to gain these insights and help establish more accurate and timely in-season nutrient recommendations to maximize soybean yield.

TRIAL LOCATIONS



WHY THIS RESEARCH IS IMPORTANT

- ❗ Currently, in-season soybean tissue testing involves targeting the most-recently opened trifoliolate. This may not accurately determine the plant's nutrient needs to guide in-season nutrient application decisions. This is because lower nodes on a soybean plant start to remobilize nutrients to developing pods at the same time new nodes and leaves are still emerging at the top of the plant.
- ❗ It is also unclear if different nutrients remobilize at the same rates.

HOW THIS RESEARCH BENEFITS THE FARMER

- 🎯 Knowledge gained will give farmers a more thorough understanding of how soybean plants accumulate and remobilize nutrients from their leaves. It can serve as a timeline of soybean nutrient uptake and remobilization that informs when, where and at what rate different nutrients cycle through the soybean growth stages.
- 🎯 Insights from this research will help farmers know when and where on the plants to take tissue samples to more accurately assess the nutritional needs of their soybean crop and design a nutrient management plan better aligned to the nutritional needs throughout the soybean growth stages.



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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