



SOYBEAN DESICCATION EVALUATION ACTION TRIAL PROTOCOL

In partnership with **UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN**

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Reviewed and revised by the ISA OFTN Team

Soybean desiccation is a common production practice used in the Southern U.S. and South America to accelerate soybean harvest. Accelerated harvest can help mitigate the impacts of extreme weather events, reduce soybean green stem, protect soybean seed quality, manage grain moisture near harvest, and facilitate more timely planting of winter crops.

OBJECTIVE – Determine the impact of soybean desiccation (applied at R7) on soybean green stem, seed quality, grain moisture, harvest timing, and soybean yield at 1-3 locations annually across Central, Northern and Southern Illinois.

TREATMENTS

- 1) Soybeans Desiccated at R7 (applied by participating farmer)
- 2) Control (no desiccation)

Farmers can choose from three desiccant products that include: Sharpen (saflufenacil), Defol-5 (sodium chlorate), and Gramoxone (paraquat). Desiccant products will be provided to participating farmers by the University of Illinois Urbana-Champaign. The recommended rate will be provided by the University.

PLOT LAYOUT

- Minimum field size of 40 acres.
- Trials will consist of at least 4 replications of both treatments with a minimum length of 300 ft long and 60 ft wide (or the width of the spray boom)
- Width of plots can be adapted to farmer's equipment.
 - Must be wide enough to measure yield using farmer's harvest equipment.
 - Minimum width is the larger of either 60 ft or twice the width of the combine header (to avoid edge effect).

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EQUIPMENT NEEDED

- 1) Commercial Sprayer
- 2) Combine with calibrated yield monitor

FIELD WORK AND MEASUREMENTS COLLECTED

- Agronomic management information – *Farmer provided*
 - Previous 3-5 years of basic management information preferred
 - More detailed current year's management information
- Baseline soil fertility sampling & analysis - *ISA responsible, spring*
- Field scouting when time and labor allow – *ISA responsible*
- Assessments for green stem, harvest timing, and seed quality – *University of Illinois responsible*
 - University of Illinois employees should be notified within 7 days of anticipated harvest so that data can be obtained prior to harvest.
- Yield monitor data – *Farmer provided*
 - Plots should be harvested as the desired harvest moisture is reached for each treatment, **which might result in multiple harvest timings.**

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