



## ACTION TRIAL PROTOCOL

### ROI OF SOYBEAN FOLIAR INSECTICIDES

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

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Reviewed by ISA OFTN Team

**OBJECTIVE**— Determine how often soybean insecticide foliar applications provide a positive return in protected yield and which insect pests are responsible when they do.

- Number of locations: 4 on-farm sites
- Geographic scope: Statewide

**TREATMENT**— Comparison of commercial foliar insecticide treatment to control treatment without this insecticide applied.

#### *Insecticide Treatment Options*

- 1) Foliar insecticide application at R3
- 2) Foliar insecticide application at R5

#### *Control Requirements*

- Except for foliar insecticide being compared, all other management should be the same as the plots with insecticide treatment

#### *Treatment Rationale:*

- *The specific treatment is flexible depending on the interest of the farmer. For instance, we could test the addition of a pyrethroid insecticide to a planned fungicide application, compare a premix insecticide to a single active ingredient, or compare fungicide + insecticide seed treatment with fungicide-only.*

**PLOT LAYOUT**—Flexible depending on equipment and field dimensions.

- Minimum field size of 40 acres.
- Trials will consist of at least 3-4 replications of both a control and foliar insecticide treatment (total of 6 or 8 plots), each a minimum of 60 foot wide.
- 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**

- Appropriate equipment to apply treatment
  - Foliar Spray equipment
  - Drone application service within range and able to be contracted
- Combine with calibrated yield monitor OR access to scale/weigh wagon that can weigh plots individually

**FIELD WORK AND MEASUREMENTS COLLECTED**

- Agronomic management information-Farmer provided
  - Previous 3-5 years basic management information preferred
  - More detailed current year's management information
- Field applications, farmer responsible
- Baseline soil fertility sampling & analysis-ISA responsible, spring
- Insect counts and injury assessments (4-8 times throughout the season, performed by Seiter laboratory)
- Yield monitor data or yield from each plot, measured via scale/weigh wagon-Farmer provided, post-harvest

**ISA OFTN CONTACT INFO**

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