



ACTION TRIAL PROTOCOL

DOUBLE-CROP SOYBEAN MANAGEMENT - PLANTING POPULATION

*In partnership with **ILLINOIS WHEAT ASSOCIATION***

PROTOCOL AUTHORS – ISA OFTN Team

Input from John Howell, Illinois Wheat Association; John Pike, crop consultant; Kelly Robertson, crop consultant; Dr. Connor Sible, University of Illinois

OBJECTIVE— Determine optimum planting populations for double-crop soybeans based on seed cost and yield.

- Number of locations: 8 on-farm sites
- Geographic scope: Southern Illinois

TREATMENT— Comparison of same soybean variety planted at three different populations for double-crop soybeans after wheat.

Planting Populations—seeds/acre

- 180,000
- 220,000
- 260,000

Control Requirements

- Should have same management for all three planting populations.

Treatment Rationale:

- *Goal is to be able to analyze the economically optimum planting population for double-crop soybeans.*

PLOT LAYOUT—Flexible depending on equipment and field dimensions.

- Minimum of 40 acres.
- Trials will consist of at least 4 replications of the three planting populations (total of 12 plots), each a minimum of 60 feet 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).

EQUIPMENT NEEDED

- Ability to adjust planting population
 - May use prescription for variable rate seeding if available.
- Calibrated yield monitor

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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
- Field scouting-ISA responsible, growing season
- Yield monitor data-Farmer provided, post-harvest

ISA OFTN CONTACT INFO

Deanna Burkhardt

Producer and Field Services Administrator

deanna.burkhardt@ilsoy.org

309.307.9366

Illinois Soybean Association

Main Office

1108 Trinity Lane

Bloomington, IL 61704