Nebraska On-Farm Research Network

ILeVO (Bayer CropScience) Protocol

Objective: To evaluate the effects of ILeVO on final stand and grain yield on soybeans grown in fields affected by sudden death syndrome and/or nematodes in Nebraska.

Study Design:

Site Selection

Field sites with uniform soil properties should be selected. The field sites must be ones which have had a **verified previous history** of SDS issues. Fields should have SDS history over a large portion of the field, not just isolated areas.

Experimental Design and Treatments

A randomized complete block design will be used for this study. 4 replicates should be planted. The treatments being tested are:

A: Check (untreated seed)
B: Standard Bayer Seed Treatment (Fungicide, Insecticide, Nematocide for example: EverGol Energy + Metalaxyl + Poncho/VOTiVO)
C: Standard Bayer Seed Treatment + 0.15 mg ILeVO (high rate for SDS)

The planter will be filled with each treatment and planted according to the diagram shown below. Treating and planting order should be A, then B, then C. A soybean variety with good SDS rating should be used. The whole planter width should be used for each treatment (split planter not acceptable as this impacts yields in wheel rows). The following example is for a 16 row planter and 8 row combine head. Two harvest passes would be collected from each strip shown below. The number of rows in each strip shown must be at least the width of the combine head so that at least one "pure" combine pass can be taken from each strip (not mixing yields from two adjacent treatments).

Rep 1	16 rows untreated seed	Yield:
	16 rows standard fungicide seed treatment	Yield:
	16 rows standard fungicide seed treatment + ILeVO treated seed	Yield:
Rep 2	16 rows standard fungicide seed treatment	Yield:
	16 rows standard fungicide seed treatment + ILeVO treated seed	Yield:
	16 rows untreated seed	Yield:
Rep 3	16 rows standard fungicide seed treatment	Yield:
	16 rows standard fungicide seed treatment + ILeVO treated seed	Yield:
	16 rows untreated seed	Yield:
Rep 4	16 rows untreated seed	Yield:
	16 rows standard fungicide seed treatment	Yield:
	16 rows standard fungicide seed treatment + ILeVO treated seed	Yield:

Responsibilities:

Nebraska On-Farm Research team will assist with:

1. Planning specific treatment design with unique equipment widths.
2. Stand counts at designated growth stage
3. Soil samples will be collected for nematode testing (21 per site)
4. Soil samples will be collected for phosphorus tests (7 per site)
5. Two visual inspections will be conducted during the mid-reproductive stages using the Southern Illinois University SDS rating system.
6. Collect background information from grower and fill out grower form.
7. Obtain site rainfall records from interpolated radar estimates.
8. Yield data must be collected using a **well calibrated** yield monitor. Grain moisture for each individual weight should also be recorded.
9. Line up weigh wagon if needed.
10. Analyze yield data obtained from the yield monitor and weigh wagon and return results to cooperator.
11. Summarize the study for presentation in annual meeting.

Grower requirements:

1. Grower must have ability to get seed treated according to treatment design on page 1.
2. Grower must have GPS and yield monitoring capabilities and field sites meeting specifications.
3. Grower must accurately record locations of the strips by flagging or GPS.
4. Grower must record yield and grain moisture data. Separate regions or loads should be used in the yield monitor to identify each strip of standard soybean treatment and ILeVO seed treatment. Raw GPS yield data files must be provided to UNL Extension within 30 days of harvest or by Dec. 1.
5. Grower will allow UNL Extension to use submitted and collected data for research, educational, and informational purposes.

***Note: Grower will not be monetarily compensated nor charged for participation in this project. ILeVO seed treatment will be provided.