



Nebraska On-Farm Research Network

ILeVO (Bayer CropScience) Protocol for Educators and Growers

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. Growers who experienced SDS issues on a field in 2014 will not be allowed to select another field nearby that will be in soybeans this year for testing **UNLESS** that field has a verified history of SDS. SDS history can be verified using 2013 (or older) soybean yield maps. 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 (EverGol Energy + Metalaxyl + Poncho/VOTiVO)
- C: Standard Bayer Seed Treatment (EverGol Energy + Metalaxyl + Poncho/VOTiVO) + 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. It is important to note that each set of 8 rows marked below needs a **separate** harvest weight recorded. Therefore, 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:

1. Local educator will assist with:
 - a. Executing planting according to treatment design
 - b. Stand counts at designated growth stage
 - c. Collect background information from grower and fill out grower form.
 - d. Participate in visual inspection if available (optional).
 - e. Yield data must be collected using a **well calibrated** yield monitor. Grain moisture for each individual weight should also be recorded. – Local educator assist as needed.
Travel costs of educator to the site are reimbursable by the Nebraska On-Farm Research Network.
2. Responsibilities of UNL Plant Pathology lab (Dr. Loren Giesler):
 - a. Soil samples will be collected for nematode testing (21 per site)
 - b. Soil samples will be collected for phosphorus tests (7 per site)
 - c. Two visual inspections will be conducted during the mid-reproductive stages using the Southern Illinois University SDS rating system. –educator encouraged to participate as learning experience.
3. On Farm Research Network ARDC office will:
 - a. Obtain site rainfall records will be obtained from interpolated radar estimates.
 - b. Analyze yield data obtained from the yield monitor and return results to educator and cooperator.
 - c. Summarize the study for presentation in annual meeting.
 - d. Nebraska Extension will work with educator to determine amount of product needed based on growers equipment size. Seed will be treated in a centralized location, however if the grower is a certified seed treater this can be negotiated.
4. Bayer Crop Science will be providing standard fungicide seed treatment and ILeVO seed treatment for study area to growers conducting this study in a quantity sufficient to meet the specifications of the experimental design with 4 replications at the growers' equipment size.
5. Grower requirements:
 - a. Grower must have GPS and yield monitoring capabilities and field sites meeting specifications.
 - b. Grower must accurately record locations of the strips by flagging or GPS.
 - c. 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.
 - d. 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. Seed treatments for study area will be provided to grower at no charge.

Disclaimer: The Nebraska On-Farm Research Network does not endorse the use of products tested in on-farm replicated strip trials. While treatments are replicated within trials and may be replicated across multiple sites under various conditions, your individual results may vary.

