

Nebraska Soybean Board



11/5/2018

Year-End Summary Research Report Form For Multi-Year Projects

Please use this form to summarize the practical benefits of your research project and what has been accomplished.

Your answers need to convey why the project is important and how the results will impact soybean production.

Note that this form must be submitted with the 4th Quarter Report in all multi-year projects.

Project Title: Comparison of Herbicide Efficacy and Economics of Glyphosate-Resistant Weed Management in Multiple Herbicide Tolerant Soybean in Nebraska (#1733)

Principal Investigator: Amit Jhala

Year of Multi Year: 1 of 2 (For example: Year 1 of 3, Year 2 of 2)

1. What was the focus of the research project or educational activity?

- (1) Compare weed control, crop safety, soybean yield, and gross profit-margins of different herbicide programs in Liberty Link, Roundup Ready 2 Xtend, and conventional soybean.
- (2) Determine the effect of soybean production practices and herbicide programs for control of glyphosate-resistant Palmer amaranth in Roundup Ready 2 Xtend, Balance GT, and Enlist soybeans.
- (3) Determine critical period of weed removal in soybean affected by pre-emergence soil applied herbicide.

2. What are the major findings of the research or impacts of the educational activity?

- (1) To select best herbicide-resistant soybean variety that can provide cost effective weed control.
- (2) Herbicide programs for control of glyphosate-resistant Palmer amaranth in soybean (data analysis pending).
- (3) Determine the growth stage of soybean where the field must be kept weed free to avoid yield loss.

3. Briefly summarize, in lay terms, the impact your findings have had, or will have, on improving the productivity of soybeans in Nebraska and the U.S.

Due to the evolution and spread of glyphosate-resistant weeds and gradual decrease in the number of effective herbicides in soybean to control problem weeds, results of this study will help growers to make a robust weed control program in Roundup Ready, Xtend, and Liberty Link soybean.

4. Describe how your findings have been (or soon will be) distributed to (a) farmers and (b) public researchers. List specific publications, websites, press releases, etc.

- An Extension Field Day was organized on June 27, 2018 at South Central Ag Lab near Clay Center for on-site demonstration of research results to the growers, extension educators, and other interested stakeholders.
- An Extension Field Day was organized on July 11, 2018 at a grower's field near Carleton for on-site demonstration of research results for control of glyphosate-resistant Palmer amaranth in Roundup Ready, Xtend, and Liberty Link soybean.
- A number of oral presentations will be made to disseminate information from the results of this project to growers, extension educators, and other interested stakeholders during the Crop Production Clinics and by writing articles for the CropWatch and Nebraska Farmer magazine.

5. Did the NE soybean checkoff funding of your project, leverage additional State or Federal funding support? Please list sources and dollars approved.

No.

Please e-mail this report to the Agriculture Research Division (jmonagham2@unl.edu).