

Nebraska Soybean Board



11/7/2018

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: #1729 Impact of Dicamba drift on non-dicamba soybeans

Principal Investigator: Stevan Knezevic

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

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

To establish baseline data on the injury of potentially sensitive crops (eg. non-DT soybeans) to six micro-rates of Dicamba herbicide (Xtendimax and Engenia).

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

All non-DT soybeans showed equally high level of sensitivity to both ExendiMax and Engenia. Both products equally affected soybean growth and development including: plant height, number of branches, days to flowering, number of flowers, days to canopy cover, and days to maturity. Due to delayed harvest (rainy fall), we can not discuss the herbicide effects on soybean yields yet.

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.

Research findings from our project will be helpful to resolve potential Dicamba drift cases and disputes among neighbors. In addition, results from this study will help the Nebraska legislature and law makers develop possible guidelines related to the distance needed between the DT soybean and neighboring sensitive crops or acreages, as the state might tighten the regulations on the use of dicamba.

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.

The 2017 data was presented in January of 2018 at Crop Production Clinics (Norfolk, Kearney, Mead), Farm Show in Vermilion, SD; Farming Conference in Mitchell, SD; Weed School at ARDC-Mead; 2 articles in Crop Watch; The 2018 data will be shared with public via similar venues.

8 posters presented at 2017 NCWSS meetings, and 5 posters will be at 2018 NCWSS (see attached document).

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

No other sources of funds were used for this project.

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

Dicamba Related Posters (Knezevic et al 2017-2018)

Year 2017:

North Central Weed Science Society Meeting, December 2017, St. Louis, Missouri

Type: Posters

Section: Agronomy crop II

Authors: Stevan Z. Knezevic, Jon Scott, and O. Adewale Osipitan

1. Yield of Irrigated Glyphosate-Tolerant Soybeans as Influenced by Micro-Rates of Engenia.
2. Growth and Development of Irrigated Glyphosate-Tolerant Soybeans as Influenced by Micro-Rates of Engenia.
3. Yield of Dryland Glyphosate-Tolerant, Glufosinate-Tolerant, and Conventional Soybeans as Influenced by Micro-Rates of Engenia.
4. Growth and Development of Dryland Glyphosate-Tolerant, Glufosinate-Tolerant, and Conventional Soybeans as Influenced by Micro-Rates of Engenia.
5. Yield of Irrigated Glyphosate-Tolerant Soybeans as Influenced by Micro-Rates of XtendiMax.
6. Growth and Development of Irrigated Glyphosate-Tolerant Soybeans as Influenced by Micro-Rates of XtendiMax.
7. Yield of Dryland Glyphosate-Tolerant, Glufosinate-Tolerant, and Conventional Soybeans as Influenced by Micro-Rates of XtendiMax.
8. Growth and Development of Dryland Glyphosate-Tolerant, Glufosinate-Tolerant, and Conventional Soybeans as Influenced by Micro-Rates of XtendiMax.

Year 2018:

North Central Weed Science Society Meeting, December 2018, Milwaukee, Wisconsin,

Type: Posters

Section: Agronomy crop II

Authors: Stevan Z. Knezevic, Jon Scott and O. Adewale Osipitan

1. Response of glyphosate-tolerant soybean to dicamba based herbicides
2. Relative sensitivity of conventional soybean to dicamba based herbicides at three growth stages
3. Impact of different dicamba herbicides on glufosinate-tolerant soybean
4. Effects of dicamba ultra micro-rates on soybean yield: Hormesis or not?
5. Effects of dicamba ultra micro-rates on soybean growth