

**Nebraska Soybean Board**  
**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 # and Title:** #712: Tracking the Severity, Frequency and Hosts of Soybean Gall Midge **Principal Investigator:** Justin McMechan

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

**1. What was the focus of the research project?**

The focus of this research project is to conduct a field survey on the presence and severity of soybean gall midge in Nebraska. Data collected on the landscape characteristics and weather will help determine what factors can increase the potential for soybean gall midge presence and plant injury in soybean. In addition, a genetic analysis of larvae will determine what, if any, genetic variability exists in the population across Nebraska where soybean gall midge is found.

**2. What are the major findings of the research?**

Results from 2021 show that 47% of variable in soybean gall midge presence and injury to soybean can be explained using characteristics such as proximity of location to last year's soybean, distance to dense vegetation, and crop history. This data was used to identify locations for field surveys across multiple states during the 2022 growing season.

**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.**

This field survey significantly impacts the understanding of high risk areas for soybean gall midge presence and an increased likelihood of plant injury. By better understanding the factors that impact soybean gall midge we can inform clientele of high pressure areas. Continued sampling through this multi-year project will help isolate and identify areas where management tactics could be used.

**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.**

These findings were presented at the Entomological Society of America Meeting in March 2022 as well as through the soybean gall midge regional webinar series to over 400 participants. These data will be presented throughout the winter at the Crop Production Clinics and other extension events.

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

This data is being used to obtain a USDA Foundation grant to explore the genetics of soybean gall midge and host interactions. The grant was submitted earlier this year. A funding decision on this grant is expected around December 2022.

*Please submit this completed form to the Agriculture Research Division, [jmcmahon10@unl.edu](mailto:jmcmahon10@unl.edu), based on the reporting schedule given to you. If you have any questions, please call Jen McMahon at the Agricultural Research Division (402) 472-7082.*

Please check your information before submitting the form.

Submit by Email