

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: Screening for stem borer resistance

Principal Investigator: Dr. David Hyten

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?

The focus of this project was to provide preliminary data that is essential for setting up future studies to identify resistance germplasm that can be used to breed for resistance and to discover genes that can be combined to increase resistance to soybean stem borer.

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

Optimum time to score for total larvae is before they reach the stem which is approximate the first of August; best time to count larvae at base of stem is 3 weeks after R8; majority of genotypes screened (MG I and II) were susceptible. One person can screen 400 plants in a week for antibiosis and antixenosis.

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.

Stem borer resistance is not common in diverse soybean material. As we continue to screen more soybean lines we need to identify resistant material and confirm that it is resistant to stem borer. Once confirmed we need to work on incorporating this resistance into elite Nebraska varieties.

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.

Once we have multiple years data we plan to distribute our findings in public talks and scientific seminars or poster and a scientific publication.

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

No