STATUS REPORT: 10-15-44-20231-7527 UMN

- **VIEW**
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Submitted by bob.koch on Wed, 03/03/2021 - 3:06pm
Timeline
Reporting Period:
 Quarterly
Quarter:
 Q3
I. Status Update:
Specific project achievements during this reporting period:
Objective 1:
Aphid abundance, defoliation and spectral data were collected in the field at Saint Paul and Rochester, MN during the summer or 2020 were analyzed. Ground-based hyperspectral data were extracted and are being prepared to assess the effects of defoliation and cumulative aphid days on soybean spectral reflectance were assessed. Preliminary analyses suggest minimal effects of Japanese beetle feeding on spectral wavelengths suitable for assessing soybean aphid infestations. However, the heavier levels of artificial defoliation seem to be affecting some of those wavelengths. More thorough analyses of the data remain to be performed to quantify the impacts of defoliation (particularly high levels of defoliation) on the accuracy of SBA detection in the field. Yield and quality data are being prepared for analyses to assess impacts of aphids and Japanese beetle.
Objective 1, Goal 1: Yield and quality data were collected from the field plots in St. Paul and Rochester and remain to be summarized and analyzed.
Objective 1, Goal 2: Hyperspectral data collected from field plots in St. Paul and Rochester were collected and remain to be processed and analyzed this winter.

Challenges encountered
Staffing restriction due to COVID affected our ability to enter, summarize and analyze the data. A no-cost extension is being requested to allow this important work to be performed.

Dissemination of data/information during this reporting period
Results of this research and relevant information will be disseminated in presentations and print.

Reporting Start Date:
 11/01/2020
Reporting End Date:
 01/31/2021
Status Report Submission Date:
 03/03/2021