

SCSB Quarterly Report

General Information

Principal Investigator(s) Name(s): C. Nathan Hancock (USCA) and Kendall Kirk (Clemson)

Organization: University of South Carolina Aiken

Date: 15 April 2021

Quarter: First

Proposal Information

Title: Strategies for rescue of nitrogen deficient soybeans

Amount Expended to Date: \$0

Progress Assessment

Report the progress toward the situation described in the proposal summary. Include progress against budget, timeline and scope.

We are in the process of organizing the needed supplies. Everything seems to be on schedule for identifying plots in May-June.

Key Performance Indicators

What KPI(s) are being used to measure project success? How are KPI(s) being measured? Will KPI(s) not be met? Are KPI(s) on track? Will KPI(s) be exceeded? Explain the key circumstances that are impacting achieving or not achieving KPI(s).

We are currently on track with all of the aims of the project.

Next Steps

Explain the next steps of the projects and what you hope to achieve during the next quarter.

We plan to identify research plots that appear to be chlorotic. We will take leaf tissue samples, and apply four different nitrogen treatments (0, 40, 80, and 120 lbs/ac of nitrogen).

Approximately one month after the nitrogen application, measurements will be taken to determine the effect of the rescue nitrogen application. Aerial images and handheld NDVI of these plots will allow us to determine canopy coverage and color. Plant tissue analysis of each plot will allow us to determine how much the nitrogen levels were improved by the treatment. We will then be able to assess if canopy color can be used as a proxy for nitrogen levels. Plant height and canopy coverage will be used to determine the effect of the treatments on overall growth. Harvest will be performed by hand using a single plant thresher and yield will be determined for each treatment.

Additional Information

Provide all additional supporting information, facts or figures here.

None