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**Innovation Grant Progress Report**

PROJECT TITLE: In-Season Potassium and Nitrogen Applications Based on Crop Demand Curve, Soil and Tissue Sampling

REPORTING PERIOD: July 4, 2018

FARMER INNOVATOR: Poppel Family Farms, LLC (Kevin Poppel)

COLLABORATING ORGANIZATION/PERSON: Central Advantage GS/ Precision Agronomist Kate Stenzel

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1.) PROJECT ACTIVITIES COMPLETED DURING THE REPORTING PERIOD. (*Describe project progress specific to goals, objectives, and deliverables identified in your project proposal.*)

Planting of the field was delayed due to poor planting conditions this past spring. This also resulted in multiple planting dates within the field. Most of the acres were planted from 5/5/18-5/8/18. The majority of the research field was planted to Channel 209-53STXRIB. Five gallons of 10-34-0 was placed in furrow, and 60#’s of nitrogen was applied pre-emerge with 32% UAN as the source.

Soil samples were pulled on 6/15 at a depth of 12” and 4.4 acre grid size. These samples were sent out to the lab to be tested for both nitrate-N and potassium. The soil and tissue sampling as well as the application of the nutrients were delayed due to the rainy weather and saturated field conditions. A potassium application has not yet been completed at this time.

2.) IDENTIFY ANY SIGNIFICANT FINDINGS AND RESULTS OF THE PROJECT TO DATE. (*There may be none to report at some stages of the project)*

Some of the nitrate tests came back higher than anticipated, but were very variable. It is evident that the excessive rains, saturated soils, and planting delays will have an impact on the final results of the field research. This will especially have an impact on the nitrate nitrogen because it is mobile in the soil.

3.) CHALLENGES ENCOUNTERED. (*Describe any challenges that you encountered related to project progress specific to goals, objectives, and deliverables identified in the project proposal.*)

There have been many challenges encountered this planting season. The wet weather conditions caused delayed planting and less than ideal field/planting conditions. It has also been hard to get all fields operations done with such narrow windows of time available to be in the field. With so many operations occurring at the same time, which were already delayed, some objectives of the project did not get done as timely as hoped. Adjustments have been made to planned objectives.

4.) EDUCATION AND OUTREACH ACTIVITES. *(Describe any opportunities to engage with farmers, influencers or the media about your project.)*

With the excessive rainfall of this past season it is an important time to discuss and be aware of nitrogen management. A large area of southern Minnesota has struggled with more rain than usual. We all know that there is a lot of focus on the environmental impacts, but growers will see significant impacts this year I feel economically on the cost and amount of nitrogen applied.

5.) HOW CAN WE HELP? *(Please let us know how we can improve the experience or assist in your project if possible.)*

No help is needed at this time.