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**Progress Report**

PROJECT TITLE: *Expanding and Maintaining Soil Health Research and Collaborations in Minnesota*

PROJECT NUMBER: 4147-19SP

REPORTING PERIOD: 2nd Quarter: July 1, 2019 - September 30, 2019

PRINCIPAL INVESTIGATOR: John Mesko

ORGANIZATION: Soil Health Partnership

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

Overall sites in MN were behind due to the late spring planting. There has also been additional concerns of late harvest due to the continuation of wet conditions. Two sites with Fall applied cover have had successful establishment but little growth due to cold conditions.

One associate site was established, and the treatment was planted in September. This trial is a diverse vs. simple cover crop in a potato, corn, and kidney bean rotation.  The main goal of the grower is to improve soil organic matter.

There was one new parter site selected for the 2020 growing season. This will be a cover crop compared to no cover crop trial, and it will be established in the spring of 2020. There has also been a major effort in finding and establishing the final 2 sites in Minnesota.

During this quarter we have been working diligently across the whole team on analysis and reporting of the data in individualized reports to the growers, and we have been sharing the reports with them as available.

2.) IDENTIFY ANY SIGNIFICANT FINDINGS AND RESULTS OF THE PROJECT TO DATE.

Due to only one year of data being analyzed on all but one partner site, there is no ability to comment on any significant changes in their soil health results. The partner site that has been established the longest has shown significant changes in soil health indicators, but they are not significantly different between the control and the treatment. Aggregate stability and active carbon showed significant positive change while water holding capacity show significant negative change. This site was also flagged for having a discrepancy in the soil organic matter content (Not a MN Corn Site).

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

Challenges this quarter has been managing the plots and data collection with the sites behind dur to the late Spring planting and additional concerns of late harvest due to the continuation of wet conditions. Anna Teeter has been in close communication with all of the growers to help address harvest data concerns as they arise.

4.) FINANCIAL INFORMATION (*Describe any budget challenges and provide specific reasons for deviations from the projected project spending.*)

On 9/27/2019, Anna and John Mesko, SHP Sr. Director met with Dr. Paul Meints of MCGA to clear up and resolve nagging confusion regarding expectations and accountability of SHP regarding the sites in MN.  The relevant conclusions from that meeting are:

*Two (2) more sites are required for SHP to comply with the original agreement and to be eligible for remaining funding. Once two more contracts are signed and delivered, the $120,000 remaining in FY18 funding can be billed for immediately and will be paid immediately.  SHP can also bill immediately for $120,000 in FY19 funding. Once we submit a work plan for 2020, which is expected by 1/10/20, and that plan is approved, we can bill for the FY20 funding as well. Paul will be sending Anna the template for the work plan*.

Of the grant funding from grant 4138-18SP, $74,055.40 has been invoiced to date. During the previous 6 months of activity, $11,093.76 has been incurred as expenses but have not yet been invoiced. These expenses include:

* Field Manager supplies for data collection and field marking - $286.04
* Soil sampling costs - $5320.08
	+ Soil sampler contractor fees - $2,321.32
	+ Shipping of soil samples - $203.36
	+ Lab and Analysis fees - $2,795.40
* Room rental fees for research meetings - $100
* Field Manager travel expenses - $5,673.68

These expenses will be invoiced once two additional grower contracts are signed and delivered.

5.) EDUCATION AND OUTREACH ACTIVITES. *(Describe any conferences, workshops, field days, etc attended, number of contacts at each event, and/or publications developed to disseminate project results.)*

Maddy attended Brian Rybergs 4R Technology Review Field Day on August 14, 2019, which had approximately 60 attendees where Maddy shared some brief comments about the plot setup.

There was a field day held in northwestern Minnesota.  This event had over 80 attendees which included local farmers and farmers from different states, local conservation groups, Commodity Group members, Commodity purchasers, and local agronomist.  The field day featured a rainfall simulator, soil aggregate stability demo, cover crop field tour, and presentations that covered a multitude of topics around soil health management.