

Study: How soil health testing can be valuable to a farmer in light of the heavy precipitations of the last growing season

Goals:

- Understand how farmers were affected by a season of heavy precipitation
- Test 2 fields of their choice to make comparisons in soil health indicators
- Interpret the data with farmers and understand how they might make use of it

Project Overview

Researchers will send farmers a questionnaire to understand their fields' current and past management system. Farmers will mail researchers the questionnaire with soil samples from 2 fields of their choice. Researchers will run tests measuring several soil parameters that can help assess the soil health. These **2 soil health tests (1 per field) will be FREE OF COST to farmers.**

The following indicators will be measured in the soil test:

- pH levels
- Cation exchange capacity
- Organic matter percent
- Nutrient levels: P, K, Ca, Mg, and some micronutrients
- Active carbon (permanganate oxidizable carbon)
- Soil respiration
- Soil protein
- Particulate organic matter fractionation
- Aggregate stability
- Nematode indices
- Enzyme activity

Information on these indicators will be explained in a webinar that will be made available in the early fall. Upon completion of the soil testing, results of the soil test will be shared and interpreted with the farmer during the interview. Follow up questions will be asked to understand how farmers might find these measurements useful. A \$75 stipend will be given to farmers to compensate them for their time.

Timeline: (Note due to COVID19) on-farm soil sampling will now be replaced with mail-in soil sampling, where instructions and pre-paid postage will be provided for farmers.

- July-August 2020: Soil sampling & questionnaire
- July-December 2020: Soil testing (as samples are mailed in)
- August 2020: Webinar on soil health indicators
- December-February 2021: Soil health test consultation & interviews
- March-April 2021: Round table discussion and feedback

For more information please visit <https://www.sprungerlab.com/>