

Wilkin County Soil Health Demonstration Site

Vance Johnson, Wilkin county

SYNOPSIS

To better understand how implementing soil health practices (such as cover crops and reduced/no tillage) impact soil health.

Goal 1 (Management Systems): Establish a minimum of six demonstration plots to compare the impacts of conventional tillage, strip-tillage and no-tillage, with and without cover crops, on soil health.

Goal 2 (Monitor & Measure): Annually monitor the physical, chemical, and biological properties of the soil within every plot to measure soil health changes/trends.

Goal 3 (Economics): Quantify and communicate the risks and returns, for each management system, to help farmers better understand input costs and profits for each.

Goal 4 (Education): Hold a minimum of one field day annually for the public to increase adoption of soil health promoting practices.

Goal 5 (Information Gaps): Work with soil health researchers and agency partners to identify research gaps and incorporate activities/measures where practical and feasible.



Pictured to the left is an aerial view of the plot layout used in this trial.

FINDINGS AND RESULTS

Due to the drought conditions, we agreed to wait until spring to apply fertilizer and tillage, so no tillage was done on the strip-till or conventional tillage plots this year.

On November 3rd NRCS and Wilkin SWCD staff completed our soil health assessments. We sampled each plot three times to collect an average. We sampled for PLFA, Haney and the Cornell Lab Soil Health Assessment package. Worm counts, penetrometer readings, EC reading, soil temp and infiltration time was also collected three times per plot. NRCS will be evaluating this data and we will share it on our website as soon as we have it available. As mentioned in the previous report, we are lacking NRCS staff to process all the soils data. We have been told NRCS NW Area Soil Scientist position will be filled shortly so we are really hoping to have a designated staff person to start processing our numbers soon.



Corn Harvest 2021



*Planting sugarbeets into No-Till/Cover Crops
Spring 2022*



*Planting sugarbeets into Strip-Till
Spring 2022*