Skyline Farms <u>Soil Health Practices summary</u>

I have participated in the Soil Health Protection for the past three years using Variable Rate Fertilization on some irrigated acres and No Till on some dry farm acres. I have mixed feelings on both practices; Ibelieve I can see some positives and some negatives.

I had high hopes of seeing an increase in yield and a decrease in fertilizer cost on the variable rate. With the increase cost of application and no yield increase I couldn't see the results I hoped for. I do believe as technology increases in this area there will be a time and a place for this practice.

We have been using no till grain drills on half of our dry farm since 2014 and minimum till on the other half. We grow Hard Red Spring wheat and have always struggled with low protein but since we began using no till drills we have much better luck. Our protein levels are usually a point higher on the no till fields than on the others. I anticipate we will be able to lower our Nitrogen inputs as we continue to use this practice. I believe the placement of the nitrogen is the reason for the increase in protein.

Yields are usually very similar when comparing the two methods unless we have a dry spring and summer. It is very critical on dry farm (in our area) not to stir the soil any more than is needed due to moisture evaporation. When we have a dry year, my plant population and yields are always higher on the no till fields. I have always been a firm believer in leaving the stubble standing to help prevent soil erosion in the spring and the no till drills allow us to do that. My only, yet huge concern with the no till is weed control. We are starting to struggle with some grasses and Russian thistle. We are having some success with chemicals in the Spring but the cost to control weeds has gone through the roof. I have hopes we can continue to use no till for the positives far outweigh the negatives.

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