

Charles Todd

1. Producer Background

- a. 1983: went to college at UW Lacrosse for business
 - i. Returned home and began farming with his father
- b. 500 tillable acres
- c. Corn/soybean rotation

2. Soil

- a. Erosion
 - i. Seen reduction in sediment disposition in waterways
 - 1. Sees more stalk residue in there, which he prefers
 - ii. Small amount of erosion between the rows on the slopes that need to be taken care of every couple year. When he plants up and down the hill, there is still minimal erosion.
 - 1. Believes that the improved soil quality helps absorb more of the rainfall before it starts to run down the slope.
 - iii. Tillage strips are close but not exactly on the contour
- b. Drainage
 - i. Yes significantly
 - 1. Earthworms have increased the porosity of the soil
 - a. Increased number of earthworms with the more residue
- c. Compaction
 - i. Doesn't notice, but does notice firmer soil because of increased drainage and macro-pores.
- d. Seedbed Conditions
 - i. Moisture is the biggest factor
 - 1. Doesn't want to plant when the ground is too wet
 - a. Doesn't take long for conditions to become favorable
 - 2. Will plant when it is cold if the soil condition is correct
 - ii. Soil temperature
 - 1. Sticks a thermometer in the ground, but doesn't really pay attention to it
 - iii. Usually plants corn around 24th-25th of April and beans follow
- e. Soil Testing
 - i. Every 3 years
 - ii. Doesn't do grid sampling at this time

3. Fertilizer

- a. Products
- b. How much?
- c. Most of the fertilizer application is done by the coop
- d. P & K
 - i. Dry P & K in broadcasted in fall for maintenance level

- 1. Applied every two years on corn ground
 - a. Testing medium/high
- ii. Liquid applied during planting
 - 1. 2 ½ inches on the side of the row,
- iii. P applied at about 35 pounds with not much K in the mix
- e. Nitrogen
 - i. Liquid N and 28%
 - 1. 100 pounds with planter
 - a. 2 ½ inches from the row
 - 2. 30 pounds with sprayer during herbicide application when its spiking
- f. Broadcasts lime

4. Yields

- a. Corn
 - i. Average of 200 bushels/acre
 - 1. Ranges in last 10 years from 165 to 225 bushels/acre
- b. Soybean
 - i. Between 45-58 bushels/acre
 - 1. Has seen a decrease in yield
 - a. Prior to no-till yield was up around 60 bushels/year
 - ii. No-tilled: Shorter and bushier vs. tilled which were taller
 - 1. Less lodging with the bushier beans
 - 2. No yield differences
- c. Difference from previous operation?
 - i. It has been to long since he transitioned he doesn't know a yield difference
 - ii. In a dry year, no-till had a 30-40 bushel advantage over conventional

5. Weed Problems

- a. Corn
 - i. Pre-emergence at spiking stage or just before
 - 1. 2 quarts of Lumax® (at ½ rate)
 - a. Broadleaf herbicide
 - ii. Roundup® as a post-application
- b. Soybeans
 - i. 2 applications of Roundup®
 - 1. At emergence and before canopy
 - 2. Adds Select® to control volunteer corn
- c. Uses same herbicide every year
- d. Scouting
 - i. Who does it?

6. Herbicides

- a. Rates

7. Tillage System

- a. Past:

- i. Mulch tillage; fall chisel plow and spring disking (2-3 passes)
 - ii. Some hay in rotation when he had cattle
 - iii. First no-till corn was into and alfalfa field
- b. Current:
 - i. No-till
 - 1. Began in 1987
 - ii. Hired custom planter, Curt Hage in 1985 or 1986 until he bought own planter in 1987
 - iii. Depth & width of strips
 - 1. Planter: 18 wave coulters that are 8" wide before the row cleaners
 - 2. Drill: 15' wide and plants two soybean rows between the last year's corn rows
 - a. Would like to put a trash wiper on the bean drill to cut up the residue a little better when conditions are a little wet
 - 3. Offsets new corn row from the 2 years previous corn row
 - iv. Tillage only done during the planting process
- c. How did you make the change possible? Government programs, etc.?
 - i. Hired a custom planter before buying his own planter
 - ii. Did not use any government incentive programs to help
- d. Rotations

8. Equipment

- a. Planters/Drills
 - i. Zone-till, 6-row Case IH 1200
 - 1. Put double coulters for fertilizer, trash wipes (row cleaners) behind the first 2 coulters then one coulters in the row for planting
 - 2. Purchased in 1997
 - ii. Customizations:
 - 1. Added an extra bar for the two Yetter coulters onto the 1200 corn planter so fertilizer can be applied while planting
 - 2. Attachments are the biggest added costs
 - a. ~\$600.00 per row
 - iii. Case IH 5400
 - 1. Soybean Drill 15"
 - 2. No-till drill that is 15' wide
- b. Tractors
 - i. 170 hp tractor to plant
 - 1. Now does most of the tillage
 - ii. 4x4
 - 1. Uses various places on the farm
 - iii. Didn't get bigger as time went on like others.
- c. Other Machinery

- i. Has thought about getting a piece of tillage equipment that cuts up the stalks but doesn't bury any residue

- d. Where were they purchased?

9. GPS Systems

- a. Not currently equipped with GPS but if he would start using fall strip tillage he would consider getting it. Now, he doesn't feel that he needs it with his current practices.

- b. Brand

- c. Accuracy

- d. What is it used for?

- e. Where did you get it?

10. Advice

- a. If you are going to change systems be fully committed and change to the proper equipment from the start. Also, change the fertilizer as soon as you change the planter and fertilize during planting.

11. Other Comments/Notes

- a. Spends 2 weeks tops with tillage, not just planting

- b. Planting takes 4-5 days

- c. Quotes:

- i. "Mother Nature does it on her own without tillage except for earthworms; it just seems that there should be a way we can make it work. And I like putting that seed in the ground with all the trash on top because the seed to soil contact is always good."