Tesdell Century Farm, Slater, IA

Lee Tesdell: Owner

Michael Helland: Row-crop operator

Practical Farmers of Iowa Annual Conference, Ames, IA January 19-20, 2018

Here's our agenda:

- Introductions
- Background to this question: Why is the operator-landlord relationship important for conservation?
 - Current land situation in our area
 - A look at edge-of-field and in-field practices
- Here's our own situation: Is it an example for others?

Background

 More than half of Iowa farm ground is rented (Source:

https://www.extension.iastate.edu/agdm/whole farm/html/c2-78.html

• We have an excess nutrient)in Iowa in the watersheds. (Source:

http://www.nutrientstrategy.iastate.edu/sites/default/files/documents/NRSfull-130529.pdf)

Background

- Row-crop farmers nearly always prefer to go for maximum yield rather than spend on conservation. (Short-term v. long-term benefits.)
- With 4 years of low grain prices, operators are reluctant to spend their own money on conservation measures. 2017CoP low-till: \$3.35/bu. corn; \$9.73/bu. SB. (Source: https://www.extension.iastate.edu/agdm/crops/html/a1-20.html)

Background to rental situations

- Farmers in our area (S. Story & N. Polk) own about 25% of the land they operate.
- No renter wants to lose rented ground to another operator.
- A lot of costs are fixed. Another 500 acres can help spread costs.
- Operators are more likely to use cover crops on their own ground or ground with a long-term lease.

Landowner- operator relationships vary

- Landowner-operator agreements:
 - Cash rent: \$225 to \$275/acre is typical in our area
 - Custom farming: \$100 to \$130/acre
 - Crop share: 50/50 or 60/40 (not common, was standard in the past)
- Landowners vary in their relationship to the farm:
 - Interested only in the rent payment.
 - Able to understand or it is too much bother to ask them to pay for upkeep or conservation work.
 - Very careful to pay for infrastructure expenses: drainage tile, bridges, and culverts/ engaged in conservation work.

How did we start?

- We were both thinking about cover crops so we tried it. 2012 was our first year. Flew on radishes & cereal rye.
- We got cost-share each year and then split the rest 50-50.
- Beginning with Fall 2017 RCPP we are in a five-year cost share program. We plan to continue sharing the additional costs of cover crops.

On Tesdell Century Farm

- In-field (Owner & operator work together)
 - No-till (Operator responsibility. Hellands started this for financial reasons.)
 - Cover crop (Operator & owner share cost)
- Edge-of-field (Owner's responsibility. Owner applies for cost-share programs and works with funding agencies to implement.)
 - Saturated buffers
 - Wood-chip bioreactors
 - Pollinator/prairie strips
 - Terraces
 - Buffer strips

Example: Reasons for seeding cover crops. How do we get this message across to landlords?

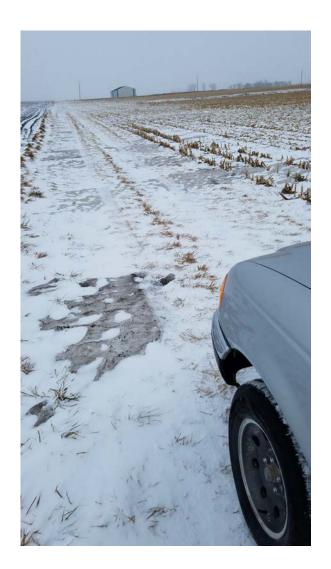
- Soil health: Organic matter
- Savings from no fall tillage
- Reduced water and wind erosion
- Sequestration of excess nutrients
- Water infiltration improves
- Weed suppression is possible
- Livestock feed is available

MAY 18, 2016 MOWING CEREAL RYE COVER CROP. 45 BALES FROM 10 ACRES

Mowing cereal rye ahead of SB seeding on May 18, 2016. We baled 45 bales from 10 acres and then seeded the SB the same day we baled. My ewes did eat all those bales through the winter.



WIND EROSION JANUARY 12, 2017



The northwest wind picks up top soil from a neighbor's field even though it was SB last year and only the end rows are fall tilled. Anhydrous was also applied which left some exposed soil. However, this is a big improvement over the days of moldboard plowing.

CEREAL RYE AND BROWN MUSTARD. 10062016.



This cover crop mix was seeded September 14 by plane. The brown mustard winter killed and spring 2017 we planted corn into the the rye that we had terminated a few weeks earlier.

CEREAL RYE AND TILLAGE RADISH_10132017. SEEDED 08302017.

This cover crop was seeded
August 30, 2017 with a
Hagie. Heartland
Cooperative provided the
Hagie gratis. Due to the dry
fall we didn't have a lot of rye
growth going into the winter.
The corn yield was the best
ever on this farm.



SEPTEMBER 1, 2017 INSTALLING SATURATED BUFFER.



With cost-share from Fourmile Creek water quality money, the NRCS office in Ankeny assisted me and a neighbor to install a saturated buffer on September 1, 2017. This tile drains 26 acres from my neighbor to the west. We have no data yet due to the lack of rain, though my woodchip bioreactor has denitrified tile water at 53% with four years of data.

Example: Tesdell Century Farm CC expenses

| Year | Seeding date | Crop in field | Cover crop seed | Method of seeding | Cost/acr e | Cost share? |
|------|-----------------|---------------|--------------------|-------------------------|------------------|-----------------------|
| 2012 | ? | SB | TR | Aerial | ? | ? |
| 2013 | 9/7 | Corn | CR | Aerial | 56.00 | EQIP |
| 2014 | 9/2 | SB | Oats & TR | Aerial | 18.00 | EQIP |
| 2015 | 9/4 | Corn | CR | Aerial | 41.00 | EQIP |
| 2016 | 9/14 | SB | CR & brown mustard | Aerial | 32.00 | Polk County WQI |
| 2017 | 8/30 | Corn | CR & TR | Hagie | 14.50 | RCPP |
| | | | | | 32.30 Average | |

HOW TO FIX A DRILL: A BOLT AND DUCT TAPE

We seeded 3 acres of prairie on November 25, 2017 with assistance from the STRIPS program at Iowa State. The Polk **County Conservation** Board Truax drill needed a last minute duct tape fix.



These are the points we covered:

- Introductions
- Why is the operator-landlord relationship important for conservation?
 - Background to current land situation
 - A look at edge-of-field and in-field practices
- Here's our own situation: Is it an example for others?
- Conclusion: We may have a model that works on this farm; from what we see, this relationship between landlord and operator is critical to expanding conservation work, such as cover crops, in Iowa. The question is how do we encourage conservation work when we have so much rented land in Iowa?