



Conservation Leader

Oliver Soil Conservation District

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May, 2016

Supervisor's Column

By Alan Schwalbe, District Chair

Managing residue is a major issue for producers. It's been discussed at various meetings and workshops I attended this year, including the Winter Workshop sponsored by Area IV Soil Conservation Districts.

Rather than transcribing my notes and trying to explain some of the things I've learned, I've found the article below and decided to share with you excerpts from this article by NDSU Extension Specialists. Please note these are MYTHS.

Ten MYTHS in Residue Management

By Roger O. Ashley, Area Extension Agronomist and John Nowatzki, Ext. Machine Systems Specialist

1. *Crop residue should be turned under to destroyed to reduce disease and insect incidence and severity in following crops.* Turning under crop residue or burning it may reduce some disease and insect problems but will exasperate others. Wheat residue tilled under will reduce tan spot, septoria and Pythium while increasing common root rot, Take-all, Fusarium foot rot and Pseudocercospora foot rot. Destroying, cutting or tilling under wheat residue will increase wheat stem sawfly problems. **A combination of crop rotation, biological soil sanitation and the use of crop protection products are more effective in controlling crop pest problems.**
2. *Tall standing crop residue must be cut into small pieces so it will rot before the next cropping season.* Tall residue will dissipate once the new crop canopies over the old residue.

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District Tree Sale

Replacement Trees for Sale

Friday, May 20

8 AM — 3 PM

Oliver SCD Tree Shed Center

Trees are available on a first-come, first-served basis. These are the trees left over after we have completed planting the requested field and shelterbelt plantings in the district. The trees are kept in cold storage, so may still be in a dormant stage.

No guarantees.

Note: The District is required to charge sales tax on all trees not used for shelterbelts.

The Oliver Soil Conservation District is now online!
www.OliverSCD.org
 Or find us on **Facebook**.
We're just getting started, so check back often for news and activities.

Dates to Remember

May 20 - District Tree Sale
 May 30 - Memorial Day, Office Closed
 June 7 - OSCD Board Meeting, USDA Service Center, Center, 7 AM

Supervisor's Column continued....

The crop canopy increases humidity under the canopy, providing an ideal environment for microorganisms to break-down the residue. The more biologically active the soil, the faster crop residue will breakdown and nutrients cycled. Tall residue may need to be cut into shorter pieces so shank or hoe drills can operate properly. **Tall standing residue is more easily handled by disc type openers compared to shank or hoe openers.**

3. *Crop residue must be destroyed so planting equipment works properly.* Properly designed planting equipment for planting into heavy crop residues is available. Proper residue management at the time harvest occurs contributes to proper seed placement at planting time. **The specific desired cropping system should dictate equipment design and selection.**

4. *Harrowing crop residue is a good way to spread crop residue and get the volunteer grain and weeds to germinate.* A harrow is one of the poorest tools for managing crop residue. Harrows tend to bunch residue and incorporate weed and crop seeds making it more likely these seeds will survive into the next cropping season and beyond. Leaving weed and crop seed on the surface allows weather, insects, birds and other wildlife to destroy the viability of these seeds. **The best tool to manage crop residue is the combine at harvest time.**

5. *The taller crop residue is the colder soil is in the spring.* Soils under stripped wheat stubble (which is about 90% of the height of the mature crop and is attached to the soil) was actually warmer in March than short (6") and medium (10") stubble. By late April short residue was reaching higher temperatures during the day but in the evening was cooling to temperatures colder than tall residue. Tall, standing stubble allows solar radiation to reach the soil directly warming soil faster than where half the straw is laying on the ground and half is standing. **The buffering effect of tall residue keeps soils from getting extremely hot or extremely cold.**

6. *Taller standing crop residue is always wetter in the spring than medium height residue.* Soils under taller crop residue during the winter and early spring contained less water than those under short and medium height residue. Since soil under the tall residue remained above freezing throughout the winter liquid water continued to percolate into the soil and drain away. Only after several intense rains (6.66") in May did moisture content in soils under tall residue rise above moisture contents found under medium and short residue. **Drainage rate under tall residue appears to be greater than under shorter residue.**

7. *Warm season crops cannot be successfully seeded into tall residue.* Warm season crops can be successfully seeded into tall residue. Well-designed no-till planting equipment is available. **Select equipment designed for the cropping system utilized. Adjustments are required when moving from field to field.**

8. *Warm season crops cannot be grown successfully in tall residue.* Warm season crops can be grown successfully in tall residue. **Soils may take three to five days longer to warm to 50 F under tall residue but such a delay isn't sufficient to keep well adapted warm season crop varieties from maturing.**

9. *Soils are "dead" under tall, standing residue.* Soils under tall, standing residue are more biologically active than short residue and tilled soils. Tall standing residue maintains soils above freezing temperatures during the winter, providing a more hospitable environment for fungi, bacteria, worms and other micro-and macro-organisms. **Fields with tall, standing stubble may have fewer problems with weeds.**

10. *It is more expensive to use harvest equipment that leaves crop residue tall and standing than it is to use harvest equipment which leaves crop residue short.* **A stripper header costs about the same as a draper header to purchase but combine plus header operation costs for a stripper header are about a third to half that for a draper header.**

ALL USDA PROGRAMS AND SERVICES ARE AVAILABLE WITHOUT REGARD TO RACE, COLOR, NATIONAL ORIGIN, RELIGION, SEX, AGE, MARITAL STATUS OR HANDICAP.

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