

Cover Crops – February 2010 Press Release

“Harvest, handling grain, fall fertility and fall tillage....cover crops are 5th.”

“The fall is a busy time, even in a normal year,” said Daniel Davidson farmer and DTN agronomist and journalist from Nebraska. “Harvest, handling grain, fall fertility and fall tillage are priorities and cover crops come in a distant 5th.”

It is **tough** to get a cover crop established in the fall. Some of you, in fact most of you probably harvested your corn and soybeans this year abnormally late. The opportunity to plant a fall cover crop following corn grain harvest this year was next to impossible. If you did get something planted, good for you! If you didn't get a winter cover crop planted and your head hurts when you see uncovered soil all winter long then maybe planning needs to start earlier.

The best cover crop stands in the fall and spring are planted early, by mid-September, into a nice seedbed either tilled or no-tilled and coinciding with rainfall. Corn silage, corn or soybean seed acres or following a small grain or vegetable are great options to take advantage of that perfect, early, nice seed bed planting opportunity.



Figure 1 Cover crop planted following corn silage harvest next to a field with no cover crop in NE IA.

If the majority of your acres are in one of these “early” production systems you are lucky, you have a larger window for fall planting. But most farmers, in fact 23 million acres worth of farmers in Iowa harvest corn and soybeans which occurs late in the fall and is almost immediately followed by winter. Although winter rye or wheat have been characterized as having the best “anti-freeze” of all the winter cover crops, it still needs some heat units and sunlight to grow if you expect fall growth. Managing Cover Crops Profitably, the encyclopedia of cover crops, reports that rye’s minimum germination temperature is 34F. However you can frost seed rye later in the fall and still get ample spring growth.

Comment: Maybe make into a comment

Cover Cropping Plan

Take a moment to answer these questions:

- Could a % of your farmed land be planted to a **shorter season** corn or soybean?
- Could a % of your farmed land be **over-seeded** into standing corn or soybeans?
- Could a % of your farmed land **not** have a cover crop?
- How can those percentages shift to include more cover crops each year?

Taking time this winter to design your **Cover Cropping Plan** will increase successfully establishing the cover crop and potentially allow for improved staggering of fall harvest.

Overseeding Observations

This year several farmers worked with aerial applicators, planes that load up cover crop seed and then fly it into standing corn or soybean acres in early to mid-September to overseed their cover crops.

Tillage radish, winter rye, winter wheat, mixes of cover crop species were all tested using airplanes this past fall. Some stands established well. Other farmers used high-clearance equipment like PFI's Hagie Highboy (available for use, contact Sarah) or modified de-tasseling machines to overseed. These **pre-harvest planting methods** work well but are not perfect. The seed can fall onto the soil surface and germinate under the canopy given the proper soil moisture but the crop canopy shades the cover crop. Or in the case of corn, seed will fall into the whorl or leaf axils and not even reach the soil till later in the fall or perhaps even next spring. Weighing your options and deciding on a cover crop plan will improve your chances of a well established, nutrient holding, soil improving fall cover crop.

Steve Groff, from Cedar Meadow Farm in Pennsylvania who talks widely about the value of cover crops especially the famous tillage radish says that "working some shorter season varieties into the farming system will help increase cover crop establishment in the fall. Improved soil to seed contact and no competition for light from the standing corn or soybeans will improve the establishment of cover crops like tillage radish. Some farmers harvested tubers like this one, thousands of them in fact. Daniel Davidson, DTN agronomist who also farms in northeast Nebraska in Stanton County planted 2 lbs of oilseed radish with German millet for a hay crop July 15th following winter wheat harvest. This tuber was harvested in November.



Figure 2 Cheri Zagurski at DTN holds a tillage radish tuber harvested in early December in NE Nebraska.

Davidson has been testing cover crops after corn and soybeans for several years now and has learned a few lessons. In his experience aerial overseeding doesn't and he prefers to drill the seed after the crop is harvested, sometimes as late as early December if the soil is still fit. He recognizes that the earlier he seeds the more fall and spring growth he will get. However after his full season corn is harvested, he realizes his window for fall growth has closed and all he can expect after a frost seeding is spring growth. However he fills that the benefits he gets even after a late fall seeding still exceed the reduced growth in the spring.

Davidson's future Cover Cropping Plan for a normal year:

- **I would designate about 50% to shorter season crops to get a jumpstart on planting cover crops with a drill**
- **As of this point, 0% would be overseeded, I have tried it in standing corn and soybeans with poor results plus I can't find a pilot to do it**
- **Ideally 0% would go un-covered but more likely 25 to 30%, lack of time doesn't allow me to get it all done in the fall when using a 15' drill**
 - Plant 105 day corn compared to 110 to 115
 - Harvest in Sept at 18 % moisture and let air dry or harvest at 20 percent and dry with heat
 - Plant 2.5 soybeans compared to 2.8-3.2
 - Rye is only option late for such a late seeding

"Early soybeans haven't yielded much different. Corn is more worrisome. But I have seen some strong yielding 103-105 day corn hybrids in our area of NE Nebraska that perform equally to full-season hybrids. Sometimes I will harvest corn early at 20% moisture and put it in a drier because some of it will be drier. This helps spread out harvest and also allow for planting rye or tillage radish sooner," says Davidson.

Cover crops cannot be business as usual. Just this week in Johnny's Seed catalog an appropriate quote about cover crops "They are an investment in your gardens or fields that will pay future dividends of healthier, more productive cash crops."

If you are interested in testing shorter season hybrids + cover crop combos contact Sarah and we can plan for a 2010 Cooperators Project. Look for results from Cover Crop projects on the website and as handouts at the Cooperators Meeting. Contact Sarah if you are interested in attending or have an idea for a project this year.

Top 6 Reasons to Add Cover Crops:

- They are an "in-field" practice---an investment account for the farmer; as opposed to "out-of-field" (wetlands, buffers, etc) which are a subsidy from the farmer
- They are possible in any farming system (hort crops, seed beans/corn, silage, corn/bean grain.)
- They suck up precious N before it leaches
- Hold soil in place through the winter and keep P on the farm which would have left with soil
- They are precision nutrient placement vehicles and allow crop roots to go deeper
- They need to be managed---don't let small grains go over the top of the work boot

Upcoming Cover Crop Events:

Midwest Cover Crops Council Conference in Ames, IA March 2-4, 2010.



Cooperators Meeting February 11 & 12, 2010

Starlite Best Western Inn & Suites Ames, IA

What have PFI Cooperators been researching on their farms this year?

Answers to what questions do we have from the 2008 & 2009 year?

PFI's Cooperators program traces its roots to the beginnings of the organization. This year the meeting will have a slightly new focus. **We want YOU to report on YOUR on-farm results.** On Thursday morning take advantage of new workshops focused on Grazing, Record-Keeping and Corn Seed. After lunch selected farmers will report their research findings from these last two years of research. Plan for good discussions and dynamic learning about how to conduct, collect, analyze and interpret on-farm research results. Thursday evening will be the revered around-the-room and dinner with presentation. Friday morning will focus on re-visiting priorities and discussing projects and field days for the 2010 year. Teresa will give us the reality check on current funding for projects and where we need to obtain funding to help you answer questions on your farm and then share those results with others.

If you would like to attend, have an idea for on-farm research & demonstration or a field day please contact Sarah Carlson at sarah@practicalfarmers.org or 515-232-5661