Big Hollow Watershed Newsletter

Planting Green Continued:

Once the seed is properly placed in the ground, we must make sure we close the seed trench. Traditional rubber or cast closing wheels work well in tilled soils, but they may not always work when planting green. There are dozens of different closing wheel systems on the market today, so farmers need to do their homework and see what works best on their specific soils. One option is to try a different kind on a row or two of the planter and see which one they prefer before they buy a set for the entire planter.

Planting soybeans into a living cover crop is fairly easy and straight forward. Corn, however, is a little bit trickier. Early cover crop users thought the corn was suffering from allelopathic affect from cereal rye. Over time, it has been discovered that the corn is suffering from a lack of nitrogen due to the rye taking up nitrogen while it is actively growing and the soil microbes using nitrogen to breakdown rye residue after it has been terminated. This is why it's important to apply a little nitrogen close to the corn seedling early in its development.

Starter fertilizer and nitrogen placed two to three inches off the row can help producers overcome the nitrogen tie-up from the cover crop. There are a couple of options for fertilizer placement; placing the nitrogen close to where the corn needs it with the planter works well. If the farmer doesn't have the capability to apply nitrogen with the planter than applications such as a weed and feed application where the nitrogen is sprayed or broadcast over the top is also an option.

With soils varying all over the state, producers must adapt to what works best for their operation and their soils. While there are a few obstacles to work through, planting green into a living cover crop can boost benefits such as increased infiltration, cooler soil temps during the hot summer months and increased organic matter.

For more information, check out this article:https://www.no-tillfarmer.com/articles/10520-what-you-should-know-about-no-till-planters

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DES MOINES COUNTY SOIL & WATER CONSERVATION DISTRICT

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What's New in the Watershed: August 2023

There has been some good things happening since the last newsletter. In the previous newsletter, there was an advertisement for the Big Hollow Watershed Kickoff Meeting. The meeting was located in the Hickory Shelter at Big Hollow Recreational Area. 65 people were in attendance and they enjoyed tasty food and learned about the watershed project. The group was comprised of landowners, operators, and outdoor recreation enthusiasts.

Pictured above: Tree clearing at Big Hollow Recreational Area

If you have visited the Big Hollow Recreational Area, you may have noticed the tree clearing adjacent the campground. The Des Moines County Conservation Board received a fish habitat stamp grant from the Iowa DNR to construct two ponds. These ponds are going to be located in the two gullies west of the campground. Once completed, the ponds will trap several tons of sediment that would otherwise end up in Big Hollow Lake. The construction of these two ponds are scheduled for this fall.

The watershed coordinator teamed up with the soil and water conservation district and Pheasants Forever to purchase an EnviroScape watershed model.

The model was purchased to demonstrate how sediment, nutrients, and other pollutants can move across the landscape into different bodies of water. Since the purchase of the EnviroScape, it has been used to educate 67 students.

The outreach and education within the watershed has resulted in several acres of cover crops to be enrolled. There are 3,200 acres of row crop land in the watershed and 523 acres of those have been signed up to be planted into cover crops this fall. That is 16% of the possible acres being enrolled. The cover crops will provide benefits for the producers as well as to the water quality in Big Hollow Lake. Just a reminder, there is a **$30/ acre** cost share for cover crops in the watershed.

Pictured left: Frank (watershed coordinator) and Tyler (NRCS) talk to students at Y-camp.

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Planting Green – Challenging Conventional Wisdom

By J.D. Hollingsworth, Area Soil Health Specialist

Close your eyes and picture a field of beautiful, black, freshly tilled soil. Can you see it? I sure can! Ok. Ok. Who am I kidding? Where I grew up, most of the fields are more of a shade of gray or brown, but none-the-less, I can still smell that earthy smell that became one of my favorite smells growing up as my dad and grandpa let me run the field finisher, tilling up our fields each year in preparation for spring planting.

After starting my soil health journey, I quickly learned the smell that I loved so much was actually a bad smell. It is the smell of microbes consuming each other along with our precious organic matter. Today we are 100% no-till and cover crops, and that earthy smell has been replaced on our farm. No longer will you see black fields when you drive by our farm, and if you drive by while I'm planting soybeans, you'll smell something more like a freshly mowed lawn.

Admittedly, a lot of our neighbors do a double take and wonder what in the world I'm doing planting into a sea of beautiful three-foot-tall green rye. I'm sure like me, their parents and grandparents told them that you needed to till everything to look like a garden before you could plant. In fact, thirty years ago if you told someone that people would be planting green, they would probably think that it meant they were using a John Deere planter.

Even though more and more farmers are planting green, there are still plenty of people that cringe at the thought! However, planting green doesn't have to be difficult. I don't recommend someone plant corn into a three-foot-tall living cover crop the first year they try cover crops like I did, but after you've had a few years to give cover crops a try, planting soybeans into a living cover crop can boost the benefits that you see from a no-till and cover crop system.

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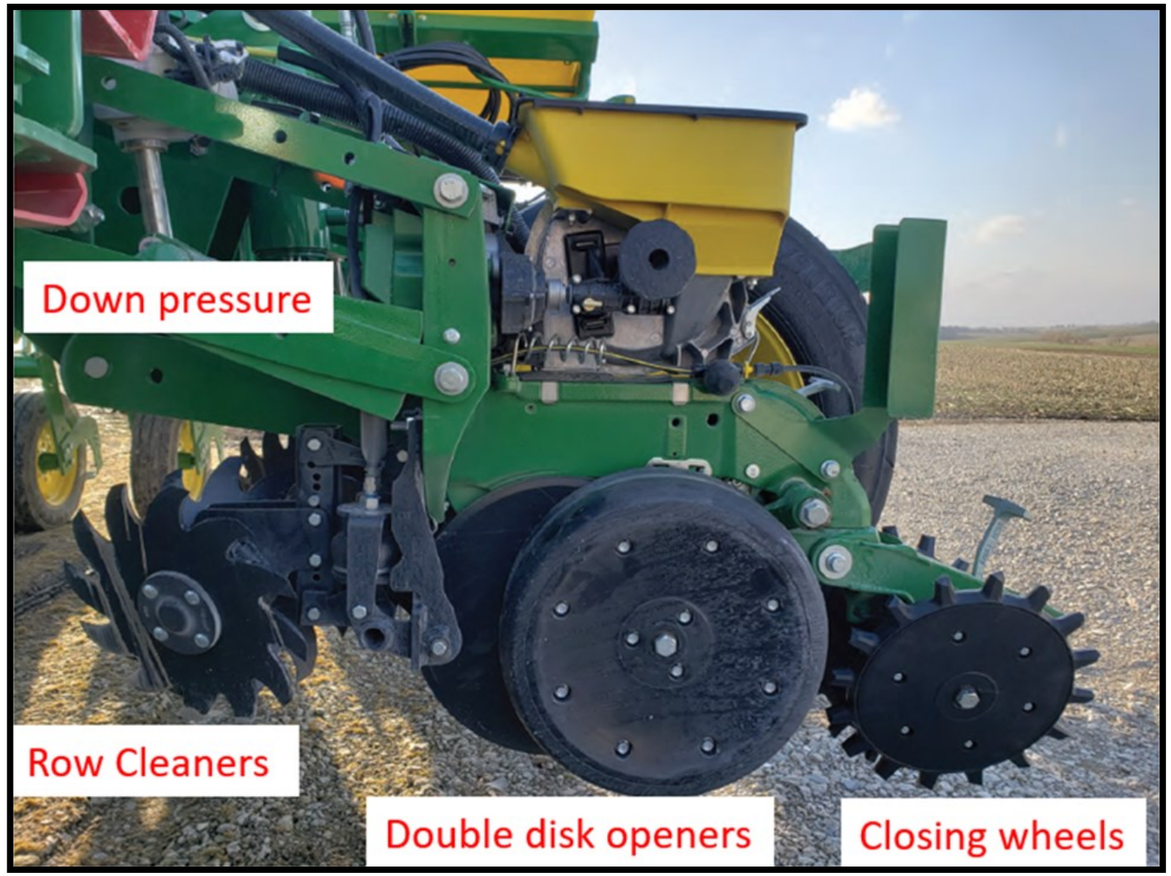
Planter setup is probably the biggest key to planting green. Everyone has their opinions on how a planter should be set up, so each producer will have to determine what works best for their operation. The critical components to planter setup are 1) managing residue ahead of the openers, 2) down pressure, 3) closing system, and 4) fertilizer system with corn.



I prefer row cleaners on the planter to remove previous crop residue and cover crops from the row. We have had good luck with them planting corn into both terminated and living cover crop. The important thing is that the cover crop either needs to be living or dead and crispy. If it's in the stage where it is dying but not completely dead, it can become rubbery and wrap on the row cleaners. We've had good success planting soybeans into a living cover crop using no-till coulters on the planter, but I worry that the chance of hair pinning residue may be an issue planting corn. I've heard some people say they get along great using only their double disk openers when they are sharp and in good condition.

Down pressure is another key to planting green. While healthy soil will require less down pressure than early no-till systems, increased down pressure may be needed when planting into heavy cover crop root systems. Down pressure springs used to be the only option on planters. Over the years, pneumatic and now hydraulic systems have become available. Pneumatic and hydraulic systems can even automatically adjust for varying ground conditions. We want to make sure we get enough down pressure to get the seed in the ground, but not too much that we cause compaction around the seed.