

Water works lawsuit filed Pages 3, 10

Select a seeding rate *Page 16*



Don't let weeds control you Page 22 Check stored grain now Page 52



By ROD SWOBODA

'INIMIZE soil disturbance. Keep something growing year-round. Build soil health. Know your watershed. Those were four takehome messages for 130 farmers attending an Iowa Learning Farms field day hosted by Steve Berger on his farm near Wellman in late March. A longtime no-tiller and cover crop user, Berger shared his experience in making his system work. Iowa State University Extension ag engineers Mark Hanna and Greg Brenneman also discussed no-till and cover crops, and answered questions.

"Our largest capital asset is our soil," says Berger. "We need to take care of our soil and not depreciate it. Farmers lost a lot of organic matter over the years just by tilling the soil, so we need to find ways not to disturb the soil as much." Nearly 40 years ago his family began no-till to prevent erosion. About 15 years ago, they experimented with cover crops on a few acres. Now Berger

Key Points

- No-till planting into cover crops is more challenging.
- Planter modifications and add-ons help ensure success.
 Adjust row unit attachments according to field conditions.

plants cover crops after corn and soybean harvest on all his acres.

Over time, Berger has noticed his ground has healthier soil and better infiltration during rains. He attributes this progress to practices that leave more crop residue and improve the soil, which in turn feeds the crops. "When you no-till and add cover crops, you're changing the soil biology," he says. "Crops need water to grow, but they also need oxygen, and we think having roots in the soil year-round helps build better soil biology, which helps build the soil, which builds better crops."

Berger and Hanna advise farmers to start small and work with someone who already uses no-till and cover crops. For farmers using conservation tillage, they suggest reducing tillage by one pass or drilling beans into cornstalks.

When transitioning to no-till and cover crops, equipment is a major adjustment, followed by insect control and nitrogen management. In a no-till and cover crop system, the planter is your most critical piece of equipment. "It's where we want to spend our money," says Berger. "We want a uniform stand with even emergence: all the corn plants coming up within hours of one another. The seed needs to be placed precisely. You do that, and a no-till and cover crop system will give your crop the advantage over any conventional system.'

Berger uses a CrustBuster 4740 All Plant drill with 10inch spacings set up for no-till planting of soybeans and cereal rye. For corn, he uses a John Deere 1700NT planter that's set up with Precision Planting CleanSweep row cleaners. He uses Case IH RID gauge wheels and Keeton seed firmers with infurrow pop-up fertilizer.

The planter also has Martin spiked closing wheels with the drag chain behind each row. He dribbles 60 pounds of 32% N on the surface with a Y-splitter right behind the closing wheels. This year, Berger added DeltaForce individual hydraulic down-pressure control and a vDrive planter meter for even more control over his planter.

"You want to do the best job possible getting seed in the ground," says Hanna. "When you're no-tilling into a cover crop, it is more of a challenge planting into the heavier residue. But there are equipment attachments you can add to row units to help your odds of getting a good stand up and growing quickly."

Be willing to adjust

Know your planter and adjust the attachments to field conditions, advises Hanna. Some types of add-ons do more than others, such as on-the-go adjustment of depth gauging wheels and row cleaners. Closing wheels are important, too. "It's not absolutely necessary to have the newest automatic adjustment controls to make the system work, but you want to try to increase your odds of success with whatever system you choose," says Hanna.

When making adjustments, set the row cleaners' height for the aggressiveness needed. The planting operation starts with the seed furrow, with seed placed and covered properly. Pay attention to the depth gauge wheel setting. Down-pressure is a consideration. "You want firm contact with the soil, but don't overdo it, or you'll create seed compaction and sidewall compaction issues," Hanna says.

Bringing all the pieces together takes time, and you learn how to improve things each year. "It's a systems approach, and it takes time to learn how to do this," says Berger. "It's not hard, but it's not something you can just jump into next year and take off either. But now is the time to get started."

Read more on Pages 4-5.

