

Technotill openers can handle wet conditions

In the feast or famine conditions which can often prevail at seeding time, these 3 Saskatchewan farmers are among a growing number of producers who have found a seed opener system that allows them to get seed properly placed in the ground even under extremely wet conditions.

After seeding through wet soil conditions with air seeding systems equipment with Technotill openers, Don Chernoff of Kamsack, Ken Penner of Norquay and Lonnie Pawluk of Kelliher, report excellent emergence and ultimately good yields among their respective crops.

“If I hadn’t had the Technotill opener I don’t think I would have got the crop seeded that one year,” says Ken Penner who crops about 1,500 acres of oats, wheat and canola. He had been using a Bourgault air seeder equipped with 10 inch sweeps on 8 inch spacing before converting to Technotill openers in 2005.

“Seeding conditions were good the first year, but in 2006 it turned wet for a week about half way through seeding,” he explains. “I think if we had had the old sweeps we would have had to have stopped seeding. We might have tried it but likely the straw would have bunched up and pulled the seed out of the ground.”

Lonnie Pawluk says after seeding quite deep through 2 or 3 seasons of “pure mud” he’s amazed wheat, oats, canola, peas and even flax emerged from flooded seed row trenches “and never looked back...the crops just took off.”

And Don Chernoff says although 240 acres of river bottom gumbo “didn’t look very pretty” after getting the crop seeded with Technotill openers in 2 seasons of wet conditions, the “germination was even and overall yields have improved.”

The Technotill seeding system was developed by central-Alberta farmer Walter Schoenhofer and his wife Betty after about 15 years of on-farm research and development. The first model was brought to market in 1996 and has gone through design fine tuning over the years. Although Walter Schoenhofer died in 2004, his wife, Betty, and son and daughter-in-law Colin and Sandi, continue to manufacture and market the unique opener.

The Technotill system features a narrow, low disturbance opener that is followed on the same shank by a skid plate packer. Technotill has its own three-quarter inch wide, carbide tip opener, although the system can also be outfitted with one inch wide Atom Jet openers. The opener places seed at whatever depth is desired, while the skid plate follows behind and packs either one-quarter or three-eighths of an inch of soil on top of the seed. A fertilizer tube attached near the back of the skid plate, places fertilizer just above and 1.25 inches to the side of the seed row. The skid plate can be customized to handle either granular or liquid fertilizer, or anhydrous ammonia.

A key feature of Technotill is even though the opener can be set to run shallow or deep in any soil condition, there is still only the ¼ to 3/8 inch of soil packed on top of the seed. As some Technotill users have noted, the actual seed placement changes, but in reality seeding depth is consistently shallow.

Cost of the Technotill openers ranges from \$300 to \$380 per shank depending on the option package. Just two bolts are needed to attach the carbide tipped knock-on openers to the front of the shank and the skid plate packer to the rear of the shank.

**Don Chernoff
Kamsack, Sask.**

Don Chernoff was just getting too much soil disturbance with a John Deere 665 air seeder equipped with 14 inch sweeps with a splitter boot. And seed placement wasn't as accurate as he liked either. Cropping about 1,800 acres of wheat, canola, peas, barley and some years oats, he switched to Technotill openers in 2004.

“I was using a one pass operation with all fertilizer going on at time of seeding, but I was getting full soil disturbance,” he says. He had been looking at the Technotill system for a couple years, researched other types openers, “but the Technotill system just seemed logical. And this has nothing to do about seed placement, but I also liked the commitment of the people who developed the system. They really believed in it.”

Most of the soil on the upper levels of the rolling topography of his farm is relatively well drained sandy loam, although he also has 240 acres of river bottom gumbo soil along the Assiniboine River.

That's where Technotill did an excellent crop of getting the crop seeded even under extremely wet conditions. Two years in a row the river bottom land either flooded or it began raining just at seeding. "The first year it was so wet the mud was rolling up on the tires of the liquid fertilizer tank caddy," he says. "I was nervous. I was mucking canola in at least 1 ½ inches deep, it was wet, and wet dirt was falling back in the little seed row furrows I didn't know what to expect. But it all germinated and came through just fine."

It was a similar situation the next year when he went to seed wheat on the river bottom fields. "You're working in mud, it's wet. I was afraid the packed soil over the seed would get too hard and nothing would germinate. But with good seed to soil contact, the seed germinates in no time and comes through with lots of vigor. It seems like it can poke through anything."

Chernoff, who installed the Technotill openers on a 40 foot John Deere air seeder cultivator with a 777 John Deere air cart says in better seeding conditions, as long as there is seed bed moisture, he doesn't worry about seeding too deep. The Technotill opener runs at 1 to 1 ½ inches deep for wheat, while peas are seeded no more than 1 ½ to 2 inches deep.

"The concept of this opener is just so darn simple and I don't think there is another air seeder boot that works as well," he says.

**Ken Penner
Norquay, Sask.**

Ken Penner was impressed with how the Technotill opener got canola and oats seeded under extremely wet conditions in 2006. Soil on his east-central Saskatchewan farm ranges from mostly clay to sandy-clay mixtures in some areas.

He had part of the crop seeded in May 2006 when it rained for a week later in the month. It was June 1 before he could get back on the land again.

“We had had 2 or 3 inches of rain anyway and it was very wet,” he says. “The tractor was spinning, we had to work around a lot of wet spots in the field. It was getting late and we wanted to get finished.”

With the Technotill openers on the 8800 Bourgault cultivator and air seeder, he ran the openers shallow to finish seeding the canola – about half to $\frac{3}{4}$ of an inch - and seeded the oats up to one inch deep. He doubts he would have been able to finish seeding the crop under those high moisture conditions if he had still been using the sweep openers.

“We got the crop seeded, had excellent emergence and a great stand,” he says “I was extremely pleased at how well it worked.”

One feature of his seeding system he did change was the fertilizer placement. He found, when seeding so shallow some of the fertilizer would end up on the soil surface. The Technotill system is designed to place fertilizer to side and 1.25 inches above the seed.

Penner narrowed the shank spacing of the seed openers on the cultivator from 8 inches to 10 inches and used extra shanks to create a mid-row banding system for fertilizer.

All fertilizer is placed through the mid-row banders about one inch deeper than the seed. “And that combination seems to work very well,” he says.

Lonnie Pawluk
Kelliher, Sask.

After seeding several crops in ‘pure mud’ Lonnie Pawluk was amazed any crop emerged, and was impressed that yields were as good as if not higher than under better seeding conditions.

Pawluk crops about 1,700 acres of oats, wheat, canola, flax, canary seed and peas. He replaced 16 inch sweeps on a Flexicoil system with the narrow Technotill openers in 2002. Farming in the dark brown soil zone with fairly heavy soil he has been faced with extremely wet seeding conditions several times.

“I was happy enough with the 16 inch sweeps, but the first year it was so wet, I didn’t even try them,” he says. “I had been looking at the Technotill openers and decided to make the switch.

“It rained and it rained and it rained, and I was nervous about whether anything would come up. On one quarter I had started seeding flax when it started to rain and I just kept going, which I would never have been able to do with the sweeps.

“I got the flax seeded. It rained about 3 inches that night. All the seed row trenches were full of water. I didn’t think I’d see anything grow. But a few days later the flax came up and it never slowed down at all. It was amazing.”

Both 2005 and 2006 were extremely wet years as well. Again Pawluk seeded flax, canola and some of the other crops up to 3 ½ inches deep and everything grew. “I aim for one to 2 inches seeding depth on average, but in some places the seed was quite a bit deeper and it made no difference. The deeper spots may have been a couple days later, but it all grew, and I would say over the years we’re seeing much improved germination and consistently better yields.”

Pawluk says despite the fact the opener may run 1 ½, 2 or even 3 inches deep, the secret of the Technotill system is there is still only ¼ to 3/8 inch of packed soil on top of the seed. Depending on conditions, anywhere from one to 1 ½ inches of loose soil falls back in on top of the seed row, but that doesn’t hurt germination, and may in fact help to protect the seed row.

“You can seed shallow, you can seed deep and it is just the most forgiving system I have ever seen,” he says.

For more information on the Technotill seeding system phone 780-352-9890 or visit the company website at: www.technotill.com