

Strip-Till Farmer

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Plotting A Consistent Course For Strip-Till Benefits

Adopting controlled traffic and bringing fertilizer application in-house has given Iowa strip-tillers Ron and Kevin Neuberger flexibility to trim input costs and improve efficiency.

By Jack Zemlicka, Technology Editor

When Ron Neuberger moved from conventional tillage to strip-tilling corn and no-tilling soybeans 10 years ago, he set modest goals.

As a single farmer planting about 1,300 acres in Ackley, Iowa, Neuberger wanted a more efficient way to prepare fields in the fall and plant in spring.

"With strip-till, the goal with the first unit I built was simply to apply my anhydrous and do my tillage in the fall, and then come out and plant in the strips in spring," he says. "Since it was just me, I didn't want to waste time working the ground where I didn't need to.

"Some of the early returns for Neuberger included time and fuel savings of not having to run a field cultivator. Eventually his son, Kevin, joined the operation and during the last several years they've gradually expanded and evolved their strip-till system.

They run the majority of their machinery in a controlled-traffic system to minimize compaction, and are now focusing on fine-tuning fertilizer quantity and placement as ways to save money and make nutrients more available for corn plants.

Nutrient Management

For years, Neuberger relied on a local co-op to bulk spread potash in the fall, and he would then use his 8-row Case IH strip-till bar, with Yetter Maverick row units, to apply 16 to 18 gallons per acre of liquid ammonium phosphate (10-34-0) in the strips, about 2 inches above the anhydrous.

But last year, he decided he wanted more flexibility with fall fertilizer application. So he built a new 12-row strip-till rig using an old Case IH 950 front-fold planter bar, and attached the Yetter row units.

The Neubergeres then added a pull-type Montag dry-fertilizer cart to the strip-till rig, which let them bring their corn fertilization program entirely in-house and reduce the number of applications they were making.

"Now our fertilizer application is one pass in the fall, and we're ready to plant in the spring. That's a fairly big savings for us already.

Based on grid-sampling results, last fall the Neubergeres applied 250 to 300 pounds per acre of phosphorous and potassium, mixed with micronutrients, and about 150 pounds per acre of anhydrous with the strip-till rig. Then in spring, they applied 3 to 4 gallons per acre of 10-34-0 as a starter with their 12-row Case IH 1250 corn planter.



SETTING GOALS. Ackley, Iowa, strip-tillers Kevin Neuberger (l) and his father, Ron, focus on preserving soil structure and increasing soil health through controlled-traffic and fewer fertilizer applications.

Although it was their first year applying dry fertilizer with this setup, Neuberger says he's seen encouraging results in the field.

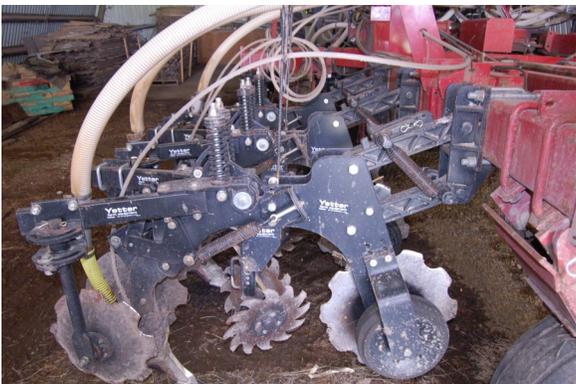
"Where we applied our starter right away, we can see a difference in the size and color of the corn," he says. "I think there's going to be difference because we're putting that fertilizer right underneath the plants rather than spreading it throughout the whole field.

"While they still use the co-op to spread potash for no-tilled soybeans, the Neuberger's expect to save money and fertilizer with the recent modification to their strip-till fertility program. Whether a yield boost is also part of the equation remains to be seen.

"Our corn yields haven't changed much since we started strip-tilling, but what we're aiming for is to at least start reducing our fertilizer needs and lower our bill," Neuberger says. "If we can get to the point where we can apply only what the plant needs and keep it in a narrow band year after year, I think we'll see additional improvements.

Saving Soil

In addition to building a consistent fertility program, the Neuberger's



EVOLVING EQUIPMENT. The Neuberger's started with an 8-row strip-till rig and have since moved to a 12-row machine using an old Case IH 950 front-fold planter bar with Yetter Maverick row units to fit their controlled-traffic system.

In addition to building a consistent fertility program, the Neuberger's are taking steps to preserve soil structure and improve soil health. Years of tillage took its toll on the predominantly Clarion loam soils in their area.

"We got to point of where our valleys would wash out, and we wanted to do something to combat that," he says. "I hate to see soil go down the river, so we started strip-tilling corn and no-tilling our beans into the standing corn stalks.

"The move helped reduce erosion, but the Neuberger's took additional steps to address compaction. Soon after moving to conservation-tillage practices, they began implementing controlled-traffic patterns to establish consistent driving lanes.

It's taken some effort to get equipment matched up, but the Neuberger's currently run their 12-row strip-till rig, 12-row corn planter, 24-row Case IH 955 soybean planter and Case IH MX270 tractor on the same lanes.

For corn, they plant on 30-inch spacings and for soybeans, they plant in 15-inch rows, using RTK to plant 7½ inches on either side of the corn stalks. They use Ag Leader's RTK 2500 RTK base station receiver for guidance and get their signal from the Iowa Department of Transportation's Real-Time Network.



DRYING OUT. After years of applying liquid fertilizer with their strip-till unit and having a co-op bulk spread potash, this past fall, the Neuberger's added a Montag pull-type dry fertilizer cart to their 12-row rig to bring their fertilizing program in-house and be more efficient with applications.

Neuberger has plans to incorporate his Top Air pull-type sprayer into the controlled-traffic system. So far, he's seen incremental improvement in soil health, with increased earthworm activity and fewer compacted areas, but has yet to dig deeper on testing organic matter or pH ranges — though he plans to in the future.

"Our main goal with controlled traffic is we're trying to rid our fields of those compaction zones and get to the point of having only a small percentage of the field that's driven on," he says. "Our outside cornrows should loosen up as well and get to the point of yielding better."

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