They're Sold On Field Rolling

"My dad bought a 14-ft. homemade field roller several years ago at an auction, and we've used it many times after seeding small grain and alfalfa instead of a drag or a cultipacker," says Brad Farmer of Osage, Iowa. "It leaves the field very smooth and does an excellent job of pushing small rocks and dirt clumps into the soil. I expanded on that idea and built a 42-ft. roller that we can use on all our row crops."

Brad and his father Brian are sold on the benefits of rolling because "we've learned, witnessed and experienced tremendous soil conservation and yield improvement on our own fields," Brad says. "Rolling dramatically reduces soil erosion. Rolled fields don't wash gullies nearly as much as those that haven't been rolled."

During the past two growing seasons, the Farmers have rolled almost all of their corn and soybean ground. "We roll all of the corn ground after the field cultivators and before the planter," Farmer says. "The biggest improvements we've seen are absolute depth control and no seed bounce because the planter row units are running on smooth ground. There's almost 100 percent uniform seedling emergence because every seed is planted at the same depth."

Farmer adds, "In the past two years, every field we've rolled has produced higher yields than those we haven't rolled ahead of planting. We plant at 35,000 seeds per acre and have almost 100 percent perfect emergence. Every seedling gets an even chance to come out of the ground."

Farmer states the obvious when he says, "Bean fields that are rolled after planting are easier to harvest because they're smooth and the header can get right to the ground without picking up small rocks or chunky soil. The



Farmer and his father use their custombuilt field roller to roll corn fields before planting and soybean fields after planting.

cutter bar runs cleaner, and there's less dirt going into the combine."

The Farmers hired their rolling until 2023 when Brad and his father built a roller using an old Deere planter toolbar and three anhydrous tanks for the drums. They pull the rig with a 49-year-old Deere 7520 tractor that Brad equipped with a customized auto steer system to ensure precision passes without overlap.

"This setup works really well, leaving fields very smooth by crumbling and breaking dirt clods and pushing small rocks flush to the surface. Our experience with custom rolling in the past is that this type of field preparation in the spring means much less wear and tear on the header during harvest," Farmer adds.

Contact: FARM SHOW Followup, Brad Farmer, 3596 Trophy Ave., Osage, Iowa 50461 (farmer3596@gmail.com).

Electric Planter Drive Goes Wireless

When Jerry Graham wanted to do variablerate seeding, his late son Toby made it happen (Vol. 42, No. 2). The electric drive unit worked so well that they started making them for others. In the years since, Graham Equipment has made multiple improvements to its rate controller. The latest is to go completely wireless.

"We were semi-wireless, but now we're totally wireless," says Graham. "In addition to variable rate seeding by row, options include electric-over-hydraulic downforce and application rate control of two liquids and two dry products."

The company has expanded geographically since developing its first planter drive unit. Based in Colorado, they now ship controllers throughout the U.S. and Canada, as well as Mexico, South Africa, the United Kingdom, Australia, Turkey, Brazil, Argentina and Poland.

"Ukraine was a big customer before the war," says Graham. "Most of our customers are farmers, but we're also getting into supplying OEMs. We still sell direct, as well as through dealers."

Graham notes that one thing hasn't changed. "Anything to do with technology attracts our customers," he says. "However, with the higher prices, customers are really looking at things before buving."

The company assembles all of its electronics, including control boards. Supply chain issues have made maintaining a supply of parts more difficult and required a creative approach.

"When necessary, we've had to modify our product designs to match the components that are available," says Graham.

The basic planter drive system is priced at around \$1,600 per row. The company offers products that interface with existing in-cab

controllers and/or GPS receivers, as well as those that don't. The Graham Command Pro is the only controller on the market that allows individual row population control.

Contact: FARM SHOW Followup, Graham Equipment, 216 Oak St., Sterling, Colo. 80751 (ph 844-464-7242; www. grahamelectricplanter.com).



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Farmer built a three-section 42-ft. wide field roller using the frame and wheels from a Deere 7000 16-row planter and three used anhydrous tanks.

Field Roller Made From Anhydrous Tanks

"My dad Brian and I looked at the cost of buying a new or used land roller last winter and decided it was way too expensive, so we decided to build one ourselves if we could find the right toolbar," says Brad Farmer. "Building tools or smaller equipment, welding and fabrication has been a big part of my life growing up, so taking on this large of a project wasn't a problem."

Farmer says his design ideas came from the 14-ft. used roller his dad bought at an auction several years ago. "The owner built it out of an old LP tank and used 10-20 truck tires to transport it. We use it every year, rolling fields after seeding small grain, and it works great, so we thought, why not make a large one using the same concept?"

Farmer turned to an internet marketplace website to locate a toolbar that he could use to transport his roller. Just 20 minutes from his shop, he found a used Deere 7000 16row planter toolbar without any row units. "It was the perfect carrier, and all I needed to do was remove hardware and bracing that held the markers, fertilizer pump, and coulter mounts," Farmer says. To make the rollers, he bought two used anhydrous tanks from a local scrap yard and another from a local farmer. He removed the ends of all three tanks with his plasma cutter, removed the filler pipe fittings, and then welded plate steel over the openings to keep dirt from getting inside the rollers.

"I wanted the end pieces to be very precise, so I had a local welding shop with a computer plasma cut them to size," Farmer says. "Each one is 41 5/16 in. in diameter, 3/8 in. thick with a 2-in. by 7/16-in. solid shaft for the axle. Each roller weighs about 2,700 lbs., is 14 1/2 ft. long and 42 in. in diameter."

Farmer mounted the wing rollers on the

bar using 5/8-in. thick flat steel brackets. He extended the ends of both wings with 7 by 7-in. by 3/8-in. thick square tubing. "It was very important to do this so that each side drum would have at least one foot of overlap to the rear drum and drop about 7 in. below the toolbar so I could raise the wheels in the field," Farmer says. The wing rollers are mounted 36 in. behind the bar with 5/8-in. brackets and gusseted framework.

The rear roller is built onto a subframe made of 7 by 7-in. square tubing that extends about 5 ft. behind the main toolbar. Hydraulic cylinders on the main frame fold the two wings forward and to the center, where they lock in place with a separate cylinder for road travel. Farmer uses the 2-pt. hitch on his tractor to raise the front of the roller. Two cylinders raise the back wheels, providing 14 in. of road clearance. A manual safety lock secures the wheel's cylinders. The entire 42-ft. roller folds to 15 ft. wide for road travel, slightly larger than the width of the center roller.

Farmer designed the hydraulics with one remote and an electric control box so he can fold and unfold the roller from the tractor cab. One solenoid handles the transport wheels, another folds and closes the wings, and a third locks the wings. "I plan to streamline this for next year by plumbing the remotes direct and eliminating the solenoids," Farmer says.

For an investment of about \$10,000 and his time for labor, Farmer says that he and his dad now have a custom-built roller that's just as good as a new one, for about a third of the cost or less.

Contact: FARM SHOW Followup, Brad Farmer, 3596 Trophy Ave., Osage, Iowa 50461 (farmer3596@gmail.com).

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