

Applicator Puts Nutrients Closer To Growing Plants

By Lorn Manthey, Contributing Editor

Illinois corn producer John Miller says the N-Place™ liquid and dry fertilizer application system that he designed puts nutrients just above the roots of growing plants, exactly where they're needed and will do the most good.

"This idea came to me as I walked past a large toolbar fertilizer applicator at the National Farm Machinery Show in Louisville a few years ago," Miller says. "I thought to myself, 'That isn't going to work,' and in 90 minutes I'd sketched out my own idea." After getting positive feedback from a few farming friends, a manufacturer, and his attorney, he began a patent search. Since then different prototypes have been tested and revised and the current N-Place model is seeing good acceptance in the marketplace.

"It's a unique concept because it delivers fertilizer next to two rows at the same time and covers lightly with soil so nitrogen stabilizers don't have to be used," Miller says. "Moving the application of 28 percent N 7 1/2 in. closer to the corn row rather than dead center between 30-inch rows can provide a yield advantage."

Miller thinks the device can also be used to deliver nutrients to other row crops like soybeans, cotton or peanuts. A



John Miller says his N-Place liquid and dry fertilizer applicator delivers fertilizer to 2 rows at a time. It mounts on any toolbar, including those for high clearance applicators.

soybean grower used the N-Place to apply 3 different products by themselves and then in combination and realized a \$34 to \$45 return on the investment.

"We're bringing nutrients to the soil directly in front of coulters that are angled from inside to outside," Miller explains. "The coulters then roll soil toward the plants so the growing roots can capture the nutrients quicker, which makes them more effective. It's also a design that saves money on application costs because we're using an applicator on every other row compared to between every row with a conventional applicator."

Each N-Place unit has its own independent down pressure settings, an adjustable gauge

wheel, and coulters angle adjustments, so precise application can be done without cutting the soil any deeper than 3/4-inch. N-Place row units mount on any size toolbar frame and also work on high clearance applicators.

"The application speed will vary depending on the size of the crop," Miller says, "and high-clearance rigs can work at speeds greater than 12 mph while delivering nutrients on target at the base of growing plants." Contact Miller for pricing and availability.

Contact: FARM SHOW Followup, Nitrogen Sealing Systems, 10916 Catlin-Homer Road, Catlin, Ill. 61817 (ph 217 304-1109; www.nitrogensealingsystems.com).



Applicator puts nutrients just above the roots of growing plants and covers slot lightly with soil.

"Full Contact" Hay Roller Reconditioning

"Resurfaced hay rollers from Circle C Equipment can dry hay up to 50 percent faster and more consistently than standard OEM rollers, producing a sweeter and softer crop that cattle find more palatable," says Mel Homer, sales and marketing manager for the company.

Circle C builds new rollers and reconditions existing rollers using high quality rubber that's machined, rather than poured, into a precise pattern. This process results in "full-contact" rollers that do a much better job conditioning hay as it moves through the rollers and ejecting debris with little or no damage to the rubber or the rolls.

"Hay producers send us their used rollers, we strip the old rubber off, and install new rubber with our proprietary process for about

half the cost of buying new ones," Homer says. "The resurfaced rollers have our full-contact pattern that'll work considerably better than when the machine was new with the OEM rollers. That's what sets us apart from other companies that do this."

Circle C also builds new rollers, using seamless DOM tubing rather than welded pipe common on most new machines. The Circle C rollers are machined on a computerized lathe, then balanced to within 1 millimeter at high rpm's so they operate without vibration.

"We've been building rollers since 1997 and have regularly upgraded and improved products and manufacturing procedures with the latest technology," Homer says. "The most significant improvements have



"We can strip and recover existing hay rollers for about half the cost of buying new ones. Your hay will dry up to 50 percent faster," says Mel Homer with Circle C Equipment.

been in the life and durability of the rubber compound and the bonding techniques we use to adhere the rubber to the metal. Our spiral roll pattern has also been improved to handle feedability challenges in tough conditions." The resurfaced rollers carry a

one-year warranty.

Contact: FARM SHOW Followup, Circle C Equipment, 333 E. Feedville Rd., Hermiston, Ore. 97838 (ph 800 367-1847; www.circleequipment.com).

Duck Foot Tine Boosts Harvest Speed, Helps Clear Cutter Bar

"The biggest thing with the Duck Foot is that it saves money and it's not time-consuming to put on," says Steve Kastning of the slip-on paddle tine that he designed and sells. "You gain ground speed to help get the crop off in a timely manner."

He came up with the design after frustrating years of harvesting lentil crops. Ideas like putting belting or duct tape over the header tines didn't help much to allow the crop to clear the cutter bar and prevent stripping and shelling. He experimented with white plastic, creating shapes to slip over the tines and attach to the reel pipe.

Kastning worked with an engineer to create a CAD drawing for a 3D printer to fine tune the design before having a mold made. He tested the Duck Foot for a few years on his own farm before he put it out to the public in late 2017. It attracted interest from an Australian farmer who's also a MacDon dealer, and it debuted in 2018 at Canada's Farm Progress show where Duck Foot won a Sterling Innovations award.

The Duck Foot is molded from the same durable, high-UV rated plastic that MacDon tines are made of. Duck Foot slips over the existing tine and is secured with quality (120-lb. tensile strength) cable ties.

"I can put them on a 45-ft. header in about 25 minutes by myself on every other time. And I can pop them off even quicker," Kastning says.

"Duck Foot works in every type of crop, with a big advantage in lentils and beans, but also straight cut canola and small grains," he adds. "Customers with thin crops really love them. The standard tine is small and misses a lot of the crop, which gives you cutter bar loss. The Duck Foot tines also work well for hay."

Kastning sells them directly for \$12.50/each plus GST Canadian and \$9.50 U.S., shipping included. A 40-ft. header takes 190 tines, placing them on every other time. The Duck Foot should last a lifetime, he says.

"We always get a really good response. For anybody that has had thin crops, Duck Foot has exceeded their expectations," Kastning says.

Currently Duck Foot only fits on MacDon headers, but by 2020, he hopes to have them for other models.

Contact: FARM SHOW Followup, Steve Kastning, Site 713 Comp 17 RR7, Saskatoon, Sask. Canada S7K 1N2 (ph 306 725-7554; www.duckfootparts.ca; steve@duckfootparts.ca).



Plastic Duck Foot paddle tine slips over the existing tine and is secured with cable ties. It helps the crop clear the cutterbar and prevents stripping and shelling.