"Reaper" Strip-Till Unit Built To Handle Heavy Trash

"My partner and I used other strip-till units and had problems with trash causing plugging and soil berms that weren't to our liking," says Lyn Rosenboom. "Two years ago we built our own system with a free-floating row cleaner made with two large 22-in. sawtooth blades and called it the Reaper. Those large, slow moving coulters remove virtually all the trash in front of the shank and don't throw it over into the next row. Fertilizer is placed into clean soil and the zone behind the unit is perfectly tilled."

Rosenboom and his partner, Steve Peterson, started Niffty Ag. to build and market the new equipment. The Reaper has a rack and pinion system designed into the shank for easy adjustability and a knife assembly that can be adjusted back and forth for additional clearance. Row units are mounted on a high clearance frame suitable for 6 to 24 rows.

"This system grew out of a need to handle high trash situations that occur because of higher corn populations and corn hybrids that produce larger stalks and leafier plants," Rosenboom says. "Even though there are a bunch of strip till manufacturers out there already, we think this design offers the performance and workability in extremely tough conditions where other designs fall short."

The Reaper has a forward facing shank that follows multiple straight running coulters to fracture the soil in a very defined zone. The shank runs between two additional saw-tooth

blades that churn the soil while keeping it flowing past the shank. They move trash out and allow positive fertilizer placement through an integrated tube running down the face of the shank. There's a long-wearing knife at the base of the shank. Firming wheels behind the shank can be adjusted to build a porous soil berm or create a flattened strip of soil.

"From experience we know this design works in any trash situation," Rosenboom says. "It's set up to handle anhydrous, liquid or dry fertilizer and place it at the bottom of the deep tillage zone." A rigid and adjustable closing wheel prevents NH3 from blowing out, which is another benefit. Hydraulics create down pressure or lift pressure, depending on the tillage situation. If a row unit encounters rocks, a spring reset toggle trips the shank and protects it from damage.

Depth adjustments allow farmers to use the Reaper for deep fall tillage and fertilizer application or shallow spring tillage prior to planting. Row units mount on 7 by 7-in. tillage bars and sell for \$5,000 to \$5,500 each, depending on setup. Niffty offers 12, 16 and 24-row tool bars on tires or tracks. The 12-row frame on tandem 55 tires starts at \$35,500. The 24-row on 36-in. tracks sells for \$98,500.

"We'll fit the Reaper to any size and any type of bar," Rosenboom says. "We've found these row units pull easier than others on the market, so a high horsepower tractor can



Free-floating row cleaner uses two large 22-in. sawtooth coulters that remove virtually all the trash in front of the shank, without throwing it over into the next row.

actually pull a 24-row machine with Reaper row units."

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Mobile Milking System Catches On In Eastern Europe

A Lithuanian company contacted FARM SHOW recently about their mobile milking systems for farmers with 20 to as many as 300 cows on pasture.

"Our mobile system brings the milking parlor to cows rather than have the cows come to the parlor," says Marijus Balys, a spokesperson for UAB Moto Techa Global. "We started making these systems in 2004 and have sold more than a thousand of them in Lithuania." Dairies in Latvia, the Ukraine, France, Switzerland, Canada and Australia have also bought Moto Techa systems.

"Mobile milking is catching on because the cows don't waste energy walking to a parlor," says Balys. "Our main customers are organic farmers and operations that make extensive use of rotational grazing, where cows are quite a distance from buildings and farm exter."

Moto Techa's portable 2,4 or 6-cow system is typically pulled to milking sites by a small tractor or a pickup truck. The 2-cow system is for up to 20 animals, the 4-stall model for up to 50 cows, and the 6-stall model for more than 50 cows. Hydraulic cylinders raise the wheels and lower the grated floor to the

ground. Electricity can be provided by a generator run by a tractor pto or a portable diesel engine. An enclosed tented trailer carries the vacuum machine and milking units. A separate cart carries wash water and the bulk milk tank.

All 3 sizes of the Moto Techa portable milking system have a galvanized frame, roof, floor and vacuum pipe. They include 12-volt lighting, milk vacuum hoses and bowls for supplementary feeding. The system uses Interpuls milking units powered by a Motech portable vacuum machine.

Balys says the milking stations are comfortable for the cows and the person doing the milking. "Cows are milked in single stalls on both sides of a central aisle. The operator has excellent access to the udder and the milking machine. Milk flows to a bulk tank through a pipeline system, just like in a stationary parlor. When a cow is done milking, a gate opens on the side of the stall and the cow walks out. Another gate opens at the rear of the stall and the next cow walks in. It's simple and stress free for the animals and the operator," Balys says. When milking is completed, semi-automatic washing devices



Lithuanian milking system "brings the milking parlor to cows rather than have the cows come to the parlor. Cows don't waste energy walking to a parlor."

clean the equipment. Bulk milk can be hauled away after each milking or stored in the tank if a cooling system is used.

The company makes larger systems for up to 300 cows. The cost of a double three parlor with 6 milking units, not including the cooling tank, the vacuum unit or the generator, is \$7,700.

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He Makes Canopies For Deere Tractors

Nelson Horning's specialty is building parts for Deere balers, but he's developed a sideline business building canopies for Deere 10 and 20 series tractors. "Several customers asked me to build a canopy because they thought the price that Deere was asking was way too high," Horning says. "I put together a few quotes and guys ordered them right away because they could save nearly 50 percent."

Horning cuts the canopy components with a CNC laser and precision forms the roof metal. The metal is powder-coated with a durable yellow finish. Horning believes his powder-coated finish will stand up to sun and weather better than the painted version offered by Deere.

"We've made close to a hundred of these so far and the response has been real positive," Horning says. "The canopy is certified ROPS and meets the requirements for rollover protection on older Deere tractors. We try to keep 15 to 20 on hand for orders as they

Horning says the canopy business is bolstered by a 70 percent rebate program run by a local health care system that serves 4 states in the Northeast part of the country. "The health care provider has statistics that show farmers are less likely to contract skin cancer if they're protected from the sun while doing field work on sunny days," Horning says. "The canopy meets those requirements, and the fact that it's certified ROPS is an added bonus."

Horning said his canopy design is very similar to the one Deere offers through its dealers, but he believes his quality is better. He sells his canopy for \$750 and offers a discount for quantity orders.

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Nelson Horning builds this canopy for Deere 10 and 20 series tractors that he says is better in quality and lower in price.