Attachments Build Road Shoulders Inexpensively

For years, Norm Pierce has made road maintenance equipment that can help rural townships and counties postpone road repairs, and also avoid the need to reapply new gravel on shoulders (Vol. 30, No. 6). He recently sent FARM SHOW photos of 2 "new and improved" attachments - a drag box that hangs from the back end of a gravel truck, and a loader-mounted "reclaimer" that reclaims lost shoulder gravel from ditches.

"The drag box lets you put down asphalt to repair the edges of roads and deteriorating crowns and potholes, as well as distribute additional gravel to the road shoulders," says Pierce. "I made my first one 14 years ago and have made several improvements over the years that make it more friendly to operate."

The dragbox hangs from a framework that is bolted to the frame of a dump truck equipped with an auger at the tailgate. When the box is in place, material is augered to drop into the "gravel" box. As it falls onto the road shoulder, the backside of the box strikes it off at the desired level. "The sides keep it restricted to the 18-in. width," says Pierce. "Dumping to the left allows the operator

For years, Norm Pierce has made road better visibility of the box and better control over release of materials."

The drag box has a metal frame that pins onto a steel "leg", which is welded permanently to the truck frame.

A metal burm is used to direct material from the truck into the dragbox. The box can be raised for transport by adjusting a pair of chains that fit into slots on back of the box. The box also comes with a leveling device that automatically keeps the drag box level when the road surface changes.

The reclaimer is designed for loader tractors with at least 65 hp., but can also be 3-pt. mounted. It consists of a 5-in. square toolbar with a short hinged frame at one end supporting several big coulters. The coulters pull material back up to the edges of the road, with a hydraulic cylinder used to change their angle. Four 100-lb. counterweights are mounted at the other end of the toolbar.

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Photo shows OEM gauge wheel (far left) and urethane wheel (center) after 146 acres of use. New 4Ag wheel at far right has 1,233 acres on it.

"Indestructible" Gauge Wheels For No-Till Planters And Drills

"Our new gauge wheels for no-till planters and drills are practically indestructible. They could be the last gauge wheels you'll ever need to replace," says Spencer Smith, 4Ag Mfg., Elk City, Okla.

The gauge wheels are designed for Deere, Case, and Kinze planters and drills and fit both new and old-style models. They work equally well for planting no-till cotton, corn and soybeans, says Smith.

The wheels are made from a solid poly material that holds up to sharp stubble and rocks and also is UV-resistant. The result is longer life than rubber or urethane wheels, says Smith. "The hard material results in minimal lip wear, which helps keep dry soil out of the seed trench. The wheel's slick surface also helps to keep mud from forming."

Smith grows no-till cotton and rye, and says stubble damage to the original gauge wheels on his planter was a big problem. "We plant in the same row each year and were tearing up our gauge wheels way too often. We tried using solid urethane tires but still had problems with excessive wear, difficult installation, and tire punctures caused by stubble. In 2012 we contacted a machinist friend, Jake Hunter, and worked with him to build our own gauge wheels."

Smith used them for several years, and with no-till becoming more popular neighbors started asking him to build gauge wheels for them.

The gauge wheels are available in a 4 1/2 in. size for planters and 3 in. for drills. They come unassembled but are easy to put together, says Smith. "You use a rubber mallet to pound one of the OEM wheel halves onto the tire. Then line up the bolt holes, press the bearing in, and pound the other half of the wheel on."

They sell for \$125 per wheel and come with a 3-year warranty.

"Our gauge wheels cost more than the competition, but over time you save money because you don't have to replace them as often. We're still using the first gauge wheels we developed on our farm 8 years ago," notes Smith.

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Gravel is augered into bottomless 3-sided drag box, which hangs from back end of gravel truck.

Loadermounted "reclaimer" uses a series of big coulters to reclaim lost shoulder gravel from ditches.

Automatic Fence Lifter Reduces Labor

A solar-powered automatic fence lifter from Argentina recently caught our attention. Argentina rancher Pablo Etcheberry developed the economical and timesaving tool to help producers with livestock on intensive grazing. It's a practice that allows producers to raise more cattle and grass on the same land for more profit. But opening and closing gates to move the cattle to multiple pastures each day is time consuming and labor intensive. The PensAgro automatic poly wire lifter reduces several daily pasture visits to once every day or two, if you have more than one lifter.

"It only takes 1 1/2 minutes for 400 cows to go through," Etcheberry says.

Having worked in Montana, he notes that while North American ranchers typically move livestock through gates at the end of each electric fence line, South American ranchers have lifted the polywire fences by hand for decades. That gives them more options for places they can open up for livestock, and eliminates the need to install gates. It also creates a wider access for the cattle to a new paddock.

The lifter is mounted on a 7-ft. rod that can be moved anywhere on a fence. It connects to the wire with a ring that lifts and lowers when activated by a timer that is powered by a solar cell on the lifter.

"It makes a beep so the cattle hear it," Etcheberry adds, noting the cattle figured it out the first day as they were used to someone lifting the fence. It may take a few days for cattle to learn if they went through gates in the past.

It also puts the fence back down in 15, 30, 45, or 60 min. The wire can also remain up, which Etcheberry often does so the cattle can access water.

"Moving cows many times a day is the future. You need to move them to let the grass behind rest. More grass means more cows and more profit. Every one of the 280 acres on my ranch is only grazed five days a year," he explains, which gives the grass 360 days to rest and collect water.

The Automatic Poly Wire Lifter is taking off in South America and is available in North America for about \$300.

Etcheberry also sells a solar-powered



Solar-powered, poly wire lifter automatically opens and closes gates to move cattle to multiple pastures. Also available is a solar-powered automatic gate opener that comes with a remote control.



Automatic Electric Fence Gate Opener (\$268) that comes with a remote control to save producers the time and labor of getting out of machinery to open and close gates.

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