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**SPOKED WHEELS COVERED BY PLATES
"ADAPT TO ANY PLANTING CONDITION"**

"Universal" Closing Wheels For Planters

By Bill Gergen, Associate Editor

"Our new planter closing wheels are designed to adapt to all conditions at planting, unlike other wheels that only work when conditions are near perfect," says inventor Walter Carroll, Wauneta, Neb., who's currently testing his innovative planter add-ons with Deere & Co. and Agco Allis-White.

Five years ago Carroll was the first to try using spoked wheels as closing wheels by mounting the specially-curved spoked wheels in place of the original closing wheels (Vol. 17, No. 4). The spoked wheels pinch the furrow from the sides rather than shoving dry surface soil back over the seed. The tilling action of the spoked wheels leaves the soil in a mulched condition above and to the sides of the seed. He licensed his original patent to Acra Plant.

His new patent pending "EquaMizer" system uses spoked wheels that are partially covered by 11 1/2-in. dia. aluminum plates. The plates cover one or both sides of the closing wheels, depending on soil conditions. The spoked wheels are 13 in. in diameter so 1 1/4 in. of each spoke extends beyond the aluminum cover plates. The half-section plates are held on by metal clips and can be fastened to either the inside or outside of the wheel.

"You can tailor the system to any combination of tillage or soil moisture conditions," says Carroll. "You can use it four different ways - closing wheels only, double plates, or single plates mounted inside or outside the closing wheels. The spokes perforate the soil and the cover plates pack it down over the slot. There's just enough spoke exposed to break up the soil. When both plates are bolted together it's the widest closing wheel on the market. Works great in low moisture conditions where you want to seal in all available moisture.

"In some cases farmers will want the flotation provided by both plates. However, in no-till or tight soil you can use just the half sections which can penetrate heavy residue more easily without riding on top. Also, in wet soils that resist closing the half sections pack the soil tighter if that's what is desired.

"Most planter manufacturers offer either rubber or cast iron closing wheels. Each wheel works good in certain conditions. However, neither type of wheel works adequately in all conditions and a lot of farmers don't want to spend the money to own more than one set. For example, cast iron

wheels are designed primarily for no-till and can't be used on soft ground because they're so narrow and heavy that they'd bury themselves in the soil. Another problem is that switching from rubber to cast iron wheels or visa versa is a big job. With my system you simply slide each plate over the axle that supports the closing wheel, and rotate three clips - there's no need to remove the wheels or bearings.

"In the near future farmers will be planting genetically altered seed. Because of the high cost per acre of this seed farmers can't afford to plant without making sure that the seed is tucked properly into the soil.

"I got the idea when I tried to develop a wider closing wheel for cotton farmers who were having problems with soil crusting over the seed, resulting in poor seed emergence. Many of them had to replant after heavy rains. I found that the bolted-together plates and spoked wheel combination created depressions where rain allowed silt to settle. Cracks developed between depressions encouraging cotton seed emergence.

"In super heavy ground where you're concerned about closing the slot I recommend mounting half section plates inside the wheels so they can apply more pressure to the slot. In heavy clay soil that's farmed no-till you don't have to worry about soil crusting over the slot so you can mount the plates on the outside. The spokes will perforate soil from the inside and create a deeper depression so that it'll warm up quicker. We found this worked really well in Illinois on heavy clay soil where the farmer planted into a cover crop of ryegrass."

Four molded circular "knobs" on one side of the plate fit between the spokes and are used to bolt the two half sections together. The half section plates are made in left and right hand versions. The left version goes on the outside of the left closing wheel and the right version goes on the outside of the right wheel. If you want to cover just the inside of the wheels, put the left hand plate on the inside of the right wheel and the right hand plate on the inside of the left wheel.

The cover plates are expected to sell for \$60 per row.

Contact: FARM SHOW Followup, Walter Ray Carroll, HCR 65, Box 77, Wauneta, Neb. 69045 (ph 308 394-5888).



Half-section plates are held on by metal clips and can be fastened to either the inside or outside of the wheels, depending on soil conditions.



Self-contained kit consists of heavy-duty drag chains, aluminum slats, and beater bars which slide into truck as a single unit. Plumbs into truck's existing hydraulics.

**SLIP-IN KIT LETS
TRUCKS DO DOUBLE DUTY**

Conversion Kit Turns Grain Truck Into Spreader

You can quickly turn your grain or gravel dump truck into a manure spreader with this slip-in kit introduced recently at the Western Canada Farm Progress Show in Regina, Sask.

It was such a hit at the show, the manufacturer says he's been swamped by orders from all over North America.

D & M Williams Manufacturing Ltd.'s self-contained kit consists of heavy-duty drag chains, aluminum slats, and beater bars. They slide in as a single unit and lock into position.

The kit plumbs into the truck's existing hydraulics which are more than adequate to drive the spreader unit which has four heavy-duty chains fitted with slats and dual

beater bars fitted with eight 10-in. dia. blades. Chains drag on the spreader pan, not on the floor of the truck, notes the company.

Once you're finished, you can quickly remove the kit and have full use of your truck for other jobs.

Kits are available for 13 to 15-ft. long gravel boxes and 14 to 16-ft. grain boxes. Hydraulics must be installed for trucks without dump hoists.

Sells for \$8,500 and \$9,500 (Canadian), respectively.

Contact: D & M Williams Manufacturing Ltd., Box 1854, Assiniboia, Sask., Canada SOH OBO (ph 306 642-3202; fax 4214).

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