Covering discs mount behind the sweeps on Heitmann's Deere 885 cultivator. Discs throw soil back over the slit left by the sweep, so the soil doesn't dry as fast.

Closing Discs Enhance Cultivator's Performance

Willis Heitmann has always been able to cover a lot of ground in a day with his Deere 885 cultivator. But he notes, "If we used it when the soil was a little wet, the 16-in. sweeps left a glazed trail in our heavy clay soils."

The sweeps would open up a slit that didn't close in damp soil. That allowed soil that was already smeared to dry that way. Heitmann was sure that cut into yields, particularly in dryland crops like grain sorghum and soybeans.

He noticed, though, that this smearing and glazing didn't happen after sidedressing anhydrous. After looking at the equipment he realized that the biggest difference was that the anhydrous applicator was equipped with covering discs.

So three years ago he took the covering discs from the anhydrous toolbar and mounted them behind the sweeps on one of his two 885 cultivators. The result was just what he'd hoped. With the discs throwing soil back over the slit left by the sweep, the soil didn't dry as fast or glaze over, either.

At the same time he was solving this problem, though, Heitmann was still not quite satisfied with the weed control from his cultivator.

"Our program for dryland crops is to band herbicides over the row, and then cultivate out the row middles," he says.

"Originally, I had the closers pitched in on the cultivator, like they were for the anhydrous applicator. Last year, I turned them around, so instead of throwing soil back over the slit left by the cultivator sweep, they picked up the loose soil and threw it toward the crop row," he says.

"The difference in weed control was amazing. Set this way, the closers not only threw soil toward the row, they completed the cultivating process by uprooting weeds loosened by the sweep. At the same time, they created a mulch layer over the slicked area that kept the soil from cracking after it dried out.

"We had three weeks of wet weather after the 1998 wheat harvest, when we normally would have been cultivating," he continues. "When we could finally get into the fields to cultivate, redroot pigweed had filled in the area between the herbicide bands. It was taller than the milo. The cultivator with the closers on it gave us excellent weed control. Because of the mulch the cultivator left behind, the soil didn't dry out and crack. And our yields were about 110 bu. per acre. I know the weed pressure cost us something, but the most we could ever expect from dryland milo here is between 120 and 130 bu. per acre, so I'm pleased with the yield."

Heitmann was so pleased with the results that in 1999 he bought a second set of closers so he doesn't have to move them back and forth between his anhydrous toolbar and the cultivator.

Heitmann uses DMI closing discs because they're spring-loaded, allowing him to better control operating depth. "They have a 2-in. wide mounting bracket, which is the same size as the 885 cultivator sweep shank. This makes mounting them very easy," he says.

He says if the closers were pitched right, they might be used to help furrow his flood-irrigated corn fields, too. "We've never had the problem with weeds in the irrigated ridges that we had in our dryland fields," he adds.

Where he used them this year for dryland grain sorghum, he harvested 118 bu. per acre. "We had very limited rainfall during the growing season in Republic county," he says. He feels that the closing discs saved what little moisture was in the soil. "In past years, the cultivator would have left the soil open and it would have dried out."

While this works well for Heitmann, he advises that the angle of the closers and cultivating speed need to be adjusted so that the right amount of soil is moved. "You may have to throttle back if the closers are pitched too sharp," he says.

Contact: FARM SHOW Followup, Willis Heitmann, R.R. 1, Box 64, Byron, Neb. 68325.

To make the SP grain loader, Brandenburger mounted an auger and a pair of conveyors on the frame of a hydrostatic-driven Uni-Harvester.

Self-Propelled Grain Loader Works Great On Ag Bags, Flat Storage

By Janis Schole

Loading high moisture corn out of Ag Bags – or other flat storage - onto semi-trailers used to be a time-consuming and back-breaking job for Minnesota farmer Francis Brandenburger, but a machine he designed has changed all that.

With help from a local machine shop, Brandenburger found a way to mount an auger and a pair of conveyors on the frame of a hydrostatic-driven Uni-Harvester. The resulting self-propelled grain-loading machine loads semi-trailers in minutes without the operator so much as touching a shovel.

"It works so well that when you're done emptying a bag full of grain there isn't even a shovelful left on the ground."

Brandenburger provided the design plan, and Dallas Bucholz of Hall Machine Works in Clear Lake, S. Dak., did the building. They worked on the project from mid-December until early May, 1999. Since completion, Brandenburger has loaded half a million bushels with it.

The pair of innovators started with the tractor section of a New Idea Uni-Harvester, using the main drive to run the additional hydraulic pumps they needed. Everything is hydraulic-driven. One of the main features is a rotating conveyor that uses a swivel taken from a utility company's bucket truck. This allows the loading conveyor to rotate 45 degrees, making it easy to accurately fill both the front and back trailer compartments.

"We've used bags for several years to store grain and loading out of them was the worst part. Picking up the high moisture corn from the heavy plastic 7,000 bushel Ag Bags was really a challenge. We tried using a vacuvator but it was too slow and high priced, plus it wore out too quick. It was finished after half to three-quarters of a million bushels," Brandenburger says. "This machine can also be used in flat storage or on outside grain piles. It fills a semi in approximately five minutes."

When Brandenburger wants to empty a grain bin, he removes the cross auger from his rig and slips on a home-made hopper attachment with one bolt. He can then load 1,000 bushels in five minutes if the bin door is wide enough.

Contact: FARM SHOW Followup, Francis Brandenburger, Rt. 1, Box 412, Nassau, Minn. 56257 (ph 320 668-2523).

Rotating conveyor uses a swivel taken from a utility company's bucket truck. Machine loads semi-trailers in minutes without the operator so much as touching a shovel.

"John Dean" Pickup Gets Attention Wherever It Goes

"I built it to look like an old time delivery truck. It draws a lot of smiles and amused looks wherever I go," says Dean Fechter, Belvue, Kan., who built what he calls a "John Dean" pickup.

Fechter had earlier built a "John Dean" tractor featured in FARM SHOW (Vol. 17, No. 1). Like the tractor, the pickup is equipped with an LUC gas engine off an old Deere combine. The engine is coupled to a transmission salvaged from a 1984 Toyota car.

The pickup is painted Deere green with an oak dashboard, an oak and walnut open-air "cabin", and wooden side rails on back. The hood on the "cabin" was made from metal off an old washer and dryer. The exhaust pipe is made from a length of stainless steel tubing and helps give the pickup a "big truck" look.

He fashioned the tractor's frame from scrap steel. He used the Toyota's axles, narrowing them up 10 in. The aluminum running boards are off an old pickup. He made his own foam rubber seat and upholstered it with bright yellow fabric. The horn was given to him by a friend and probably came out of a Model A or Model T Ford.

"It goes up to 40 mph. When I started building it I planned to use it to haul stuff around. But the more I worked on it, the fancier it got. After it was done my wife said there was no way I was going to use it to haul stuff in it because I'd probably scratch it up. So all we do is joy ride in it and drive it in parades," says Fechter.

Contact: FARM SHOW Followup, Dean Fechter, 21855 Oregon Trail Rd., Belvue, Kan. 66407 (ph 785 456-7622).

Fechter's "John Dean" pickup is painted Deere green with an oak and walnut cabin.