

"Starter knife" and coupler mount on spring-loaded support arm that fits existing bolt holes on planter.

NEW ATTACHMENT ADAPTS EASILY TO MOST PLANTERS

They Inject "Starter" At Rear Of Planter

"We needed a starter fertilizer attachment that wouldn't get in the way of up-front tillage equipment on our planter. There was nothing on the market so we built our own," says Don Ohlman, Central City, Neb., about the rear-mount starter fertilizer injector he designed and now manufactures.

Ohlman runs ridgers on the front toolbar of his 6-row Deere Max-Emerge planter so there isn't room for conventional starter fertilizer attachments. But even if he could use them, he doesn't like the way most commercially available starter fertilizer knives work.

"They plug up with trash under minimum till conditions and they tear up the seedbed. Our unit eliminates both of these problems and lets you accurately apply starter off to the side of the seed where it does the most good," says Ohlman.

With the help of his son Dave, who is an engineering student at the University of Nebraska, he's worked on the attachment for three years. After trying 14 different designs, he's finally settled on a unit that easily attaches to the rear of most planters with no modification. He produced 50 units for use on neighboring farms this spring and plans to go into full production later this year.

THEY MAKE IT EASY TO GUIDE TRUCK INTO POSITION

"Load-Out Lights" For Combines, Choppers

Giving directions to load-out trucks while harvesting is easy with a new directional light kit put together by a Canadian custom hay harvester and machine shop operator who got tired of losing grain and forage on the ground, especially at night.

"Often the cab windows are so dusty the truck driver can't see you when you give directions to move forward or back. At night, the problem is even worse," says Krahn.

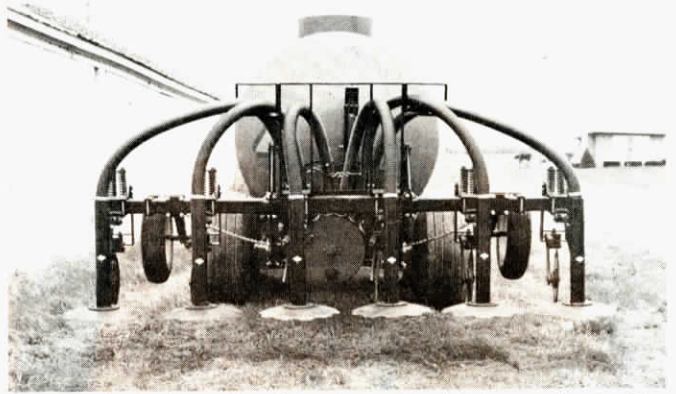
He simply mounts two different colored lights on a metal bar that mounts on the outside of the cab. The lights are wired into

the machine's electrical system and controlled by a single self-centering toggle switch. When pushed forward a green light comes on, signaling the driver to pull ahead. Pushed back, the yellow light comes on telling the driver to fall back.

The switch can be located anywhere in the cab. "On my New Holland 2100 forage harvester, I put the switch on the hydrostatic speed control lever. This works great because it lets one hand control ground speed, spout direction, and the load-out lights, leaving the other hand free for the steering wheel," says Krahn.

Another benefit is that soil isn't packed behind the rear-mount starter knife. "The fertilizer doesn't get compacted under packer wheels so it spreads out more rapidly toward the row," says Ohlman, who applies 10 to 20 gal. per acre of starter (a nitrogen, phosphorous, and potassium mix).

For more information, contact: FARM SHOW Followup, Donald F. Ohlman, Rt. 1, Box 80, Central City, Neb. 63826 (ph 308 946-3431).



Notched 24-in. dia. discs at the end of each output hose inject manure in a band 2 to 3 in. below surface.

THEY SPREAD MANURE EVENLY ACROSS ROOT ZONE

New "Injector Discs" For Liquid Manure

When Wayne Solt, Pearl City, Ill., built a confinement beef barn with a manure pit in the mid 1970's, he expected the collected liquid manure to "pay for the barn" in reduced fertilizer costs and increased yields. He never got bigger yields and, in fact, he thinks they were actually reduced by as much as 50% in some cases.

"Our corn fields looked terrible. We had high-low corn meaning that in the same row some corn was knee-high and some was waist-high. Something was wrong even though the liquid manure we were applying tested out at 200 lbs. nitrogen, 90.6 lbs. phosphorus, and 61.8 lbs. of potassium per acre. I thought maybe we had a compaction problem so I bought a subsoiler and ripped down to 24 in. When that didn't help, we got in touch with Bob Hoeft, crop specialist at the University of Illinois," says Solt.

Hoeft and a graduate student set up test plots on the farm and conducted tests for 7 years. In 1986 they concluded that the knife-injected manure formed a strongly concentrated manure zone. Crop roots would grow over to the manure zone and then turn 180° away, particularly under wet conditions. "Research showed that the

manure didn't cause reduced yields. The problem was with the method of application," explains Solt.

Armed with the new information, Solt set out to develop a manure applicator that would spread liquid manure evenly across a zone 2 to 3 in. below the surface. His work resulted in the new horizontal spinning "injector discs".

The notched discs are 24 in. across. They penetrate about 3 in. and their forward motion causes them to rotate. Solt says the discs actually take less power to pull than injector knives. "Manure enters the center of the disc. The result is a pencil-thin band of liquid manure spread across the full width of the disc. In 1987, which was a dry year for us, we got yields as high or higher than anyone in our area and the high-low growth pattern of plants was no longer visible," says Solt, who sold rights for the design to Badger-Northland. The company is conducting field tests and hopes to have the "injector discs" on the market by 1989.

For more information, contact: FARM SHOW Followup, Badger-Northland, Inc., P.O. Box 1215, Kaukauna, Wis. 54130 (ph 414 766-4603).



Lights mount on metal bar that attaches to side of cab. Green tells the driver to pull ahead and yellow tells him to fall back.

The light kit uses 1 1/2 by 3-in. Tiger Eye clearance lights that are normally found on semi-trucks. They show up brightly day or night. Krahn says his kit can be installed in minutes. Sells for \$49.95 (Canadian).

For more information, contact: FARM SHOW Followup, Krahn's Agricultural Repairs, Box 97, Vauxhall, Alberta T0K 2G0 Canada (ph 403 654-4224).