

**NEW-STYLE OPENER APPLIES LIQUID FERTILIZER 2 IN. BELOW SEED**

# Drill And Fertilize In Just One Pass

Thanks to a new-style opener designed by Oregon Wheat farmer Larry Garrison, of Maupin, you can inject liquid fertilizer as you drill in your small grains.

Garrison designed and is manufacturing the opener that places liquid fertilizer 1½ to 2 in. directly below the seed.

The narrow profile opener cuts through trash, leaving a clean opening for the seed. Besides eliminating the separate trip to apply fertilizer, Garrison notes that, by placing the fertilizer close to the seed, the roots extend down through the soil, keeping pace as the fertilizer leaches down. Thus, the plant gets more use out of the fertilizer.

"Placing the nutrients under the seed also eliminates weed competition by restricting the fertilizer to use by the growing crop, not the weeds," Garrison points out.

The openers bolt in place of the old shoes or hoes. They fit on most shoe and hoe type drills, as well as the IH 510 double disc opener drill which is built strong enough so no reinforcement is needed for the openers.

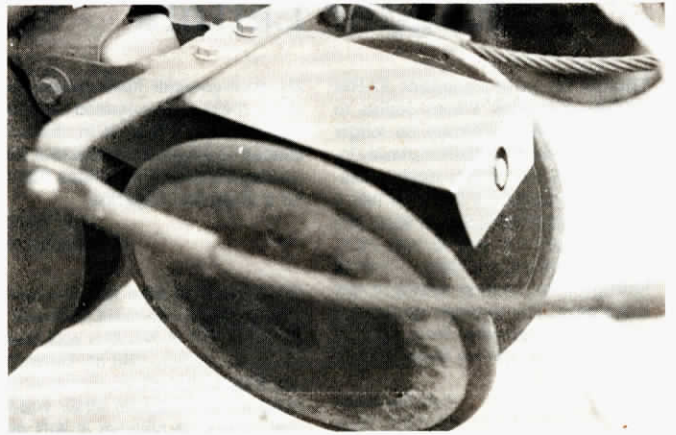
Equipped with a chrome point, and stainless steel fertilizer tube, they sell for \$125 to \$150 each, depending on the make of drill. Garrison points out



**By installing the new opener on your conventional drill, you convert it into a no-till or minimum-till drill, says manufacturer.**

that "by installing the new opener on your conventional drill, you convert it into a no-till or minimum till drill that applies liquid fertilizer as it seeds — for about one-sixth the per foot cost of a new no-till drill."

For more information, contact: FARM SHOW Followup, Larry Garrison, Star Rt., Box 3AA, Maupin, Ore. 97037 (ph 503 475-7349).



**Couser's shield keeps clods and roots from plugging the firming wheels.**

## SOLVE PLUGGING PROBLEMS IN TRASH

# Attachments Improve Max-Emerge Planters

"We purchased our first Deere Max-Emerge planter in 1976 and each year we have had to replant rows, both corn and beans, due to clods, roots, etc., clogging the firming wheels of an individual planting unit. The problem increased when we went to more conservation tillage with more crop residue at planting time," notes Dick Couser of Couser Machine and Supply, Nevada, Iowa, manufacturer of a new "Firming Wheel Shield" that has solved the problem.

The shield attaches with two bolts, using the existing two holes in the firming wheel frame and exposes the spring adjusting bolt so that the pressure of the firming wheels can be changed without removing the shield.

A tine-tooth herbicide incorporator can be bolted on top of the shield using the same two bolts. For planters with row leveling chains, a shorter shield is available.

"A number of planters in the area have used the shields with the same excellent results. From ridge planting to conventional tillage, even mud and standing water conditions last



**Trash Thrower is a low cost option to furrow openers.**

spring, it's been used with no problems," says Couser.

The Firming Wheel Shield for Max-Emerge and Kinze planters sells for \$8.95, plus shipping.

The company also manufactures a low-cost "Trash Thrower" for Max-Emerge and Kinze planters.

"It's a low-cost alternative to furrow openers and other trash cleaners that can cost as much as \$100 more per row than our unit," says Couser. "With the Trash Thrower, we have better seed spacing, especially in soybeans. And, the sweep leaves a clean area for banding herbicides."

The Trash Thrower features a 10 in. sweep attached to a shank bolted to the planter unit's base plate. The sweep helps clear clods and residue from in front of the planter unit for better seed spacing.

Seed depth is adjustable and there are no bearings to replace as on other trash clearing systems.

The Trash Thrower sells for \$39.95 per row, including the sweep.

For more information on both attachments, contact: FARM SHOW Followup, Couser Machine and Supply, Rt. 2, Nevada, Iowa 50201 (ph 515 382-5560 or 4897).



**Kit costs 25 to 50% less than "ready made" machines.**

# Do-It-Yourself Chisel Plow Kit

"We've cut the cost of chisel plows by letting the farmer put the pieces together himself," says Allen Snyder, developer of a new business in Tecumseh, Mich., that plans eventually to offer a full line of tillage implements that farmers can put together and add the finishing touches to themselves.

The idea behind the chisel plow kit is to cut the cost of the chisel by letting the farmer perform "finishing" functions that high-paid union laborers might otherwise perform. "Most farmers can weld as well as non-farm factory welders who are only concerned with making their wages and next Sunday's football game," says Snyder.

The 3-pt. lift and cylinder mounting connections are tack-welded at the factory and only need to be completed. The farmer needs a pair of pipe clamps to hold the shank bars securely when he welds the front-to-rear frame members, which are cut with a tolerance of plus or minus 1/32 in. so that assembly without a jig is easy. Once welding is complete, the frame is painted and the shanks mounted.

The plow is offered with a 26-in. shank which, when mounted, has about 28-in. clearance from the bottom of the chisel plow frame to the bottom of the point. The distance between the front and rear shank mounting bars is 4 to 8 in., greater

than conventional plows for better trash clearance, says Snyder.

Points for the shanks are not supplied with the plow since good quality points are usually offered at lower cost locally. "Our materials are as good as that in any plow on the market and better than many," says Snyder.

The plow kits cost 25 to 50% less than ready-made units, depending on the brand. A 5-ft. wide, 2-bar mounted unit sells for \$480.

For more information, contact: FARM SHOW Followup, Allen Snyder, ASKO, Inc., P.O. Box 148, Tecumseh, Mich. 49286 (ph 517 423-3164).