

**COST JUST \$4,000**

## Farmer-Built Drier Works "Good As New"

Cash cropper Walter Glynn spent a lot of time shopping for a small-scale corn drier two years ago, but even the most persuasive salesman failed to close a deal with this resourceful farmer.

He ended up building his own. His tab for a continuous flow grain drier that can take 100 bu. of 30% corn down to 15% in an hour ran to \$4,000. All parts were new except for the blower fan, which he pulled off an old grain bin. A comparable factory-made model, he estimates, would have cost somewhere in the neighborhood of \$15,000.

For years, the Haldimand County, Ont., farmer made do with a pto-driven drier. Drying was uneven and expensive, so Glynn decided to build his own machine to dry his 75 acres of corn.

The sheet metal outer walls of his homemade drier are 17 ft. high, with an extra 10 in. of ¼-in. plywood sheet that clips onto the metal at the top. Glynn bought 10 ft. lengths of perforated tobacco kiln floor to form 2 drying columns 10 ft. high, 8 ft. long and one foot wide. The drier holds 160 bu. at a time. Glynn fills it to the top of the inverted v-shaped baffle over the drying column so that hot air doesn't escape.

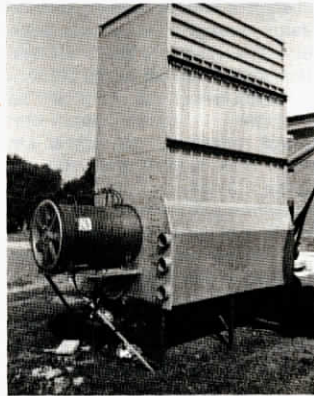
The drier has 2 heat sensors. One, near the top of the drying column, is set for 180°F and another, 3 ft. from the bottom, is set at 130°F for 30% corn. The lower sensor regulates the action of metering rolls that dump the grain into an auger leading to the storage bin.

Borrowing designs he had noted on new equipment, Glynn opted for homemade metering rolls (rather than a pair of augers running along the length of the drying columns) so that the grain would empty evenly. He used 1 in. pipe for the rolls and welded 4 ft. long "kickers" along the length of the pipe. The rolls are powered by a ¼ hp electric motor through a 50:1 reduction gear.

To minimize propane costs, Glynn also installed 3 lengths of 6 in. dia. flexible pipe to draw hot air from the bottom of the columns to the back of the burner. The heat exchanger pays off most days, especially when the 80°F waste heat warms outside air from 50°F in October. When the weather is particularly humid, the exchanger is of limited value. "But you don't get much efficiency out of your propane anyway, when there's too much moisture in the air," notes Glynn.

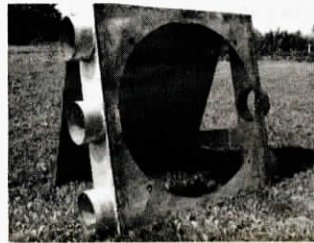
He's used the drier for only one season, and when he first filled the rig, he noticed that the walls soon started to bulge a little from the weight of the grain. He quickly welded some angle iron along the sides for extra support.

"I can hardly believe it turned out so well," says Glynn, although if he



Country Guide photos.

Glynn added angle iron cross-pieces when outer walls began to bulge under load.



This cowling fits over blower. Flexible pipe connections return hot air from bottom of drying column for recirculation.



Metering rolls (rather than augers) mounted into base of dryer empty out dry corn evenly along unit's length.

had to do it over again, he probably would have added a pressure switch on the top of the loading auger to prevent spillage while he's out harvesting the next load with his 12-year-old, 10 ft. IH combine. Glynn also plans to put a concrete pad under the drier.

Last year, he dried all his corn to 15.0 to 15.5% moisture by taking it down to 17% in the drier and using an aeration bin for the final stage of dry down. And the cost? Glynn now dries his 30% grain corn to 15% for 17 cents a bushel, less than half the usual elevator drying fees.

Reprinted with permission from Country Guide Magazine, Winnipeg, Canada.



In one pass, rocks on the surface and in upper 3 in. of topsoil are crushed and the powder worked back into the soil. Machine hasn't been tested on hard granite-type rocks.

**BREAKS THEM UP WHERE THEY LIE TO PRACTICALLY ELIMINATE PICKING**

## German Rock Machine Crushes "On The Go"

A new German rock crusher that crushes rocks up to 12 in. in dia. in the field and then works the crushed powder back into the ground is now on the market in Europe.

Developed by Josef Willibald, Frickingen, West Germany, the rock crusher resembles a roto-tiller from a distance and, in fact, it works the soil up and leaves it level much like a tiller. Crushed rocks are worked back into the soil where their nutrients are released to enrich the soil, says Alfons Ehrle, sales manager for the Willibald Company.

"The crusher is pto-powered and mounts on a tractor 3-pt. hitch. An intake rotor picks up stones to a depth of 3 in. and throws these to a slasher rotor. The stones hit the rotating slashers and are smashed instantly. The slasher rotor works about 4 in.

above the ground, "pre-smashing" large stones before they reach the intake rotor at the back," explains Ehrle.

The crusher, which practically eliminates having to pick rocks, can cover 1 to 2 acres per hour with its 5½-ft. width, says Ehrle. Two smaller models are also available.

Ehrle notes that there is some question whether or not the machine could successfully crush the hard, granite-type rocks common on farms throughout the Midwest. The company hopes to find a North American distributor and begin field tests soon.

For more information, contact: FARM SHOW Followup, Josef Willibald, Maschinenfabrik, D-7771 Frickingen-Altheim, West Germany (ph 07554 8411).

**ADDS 50 BU. TO CAPACITY**

## Fold-Down Bin Extension Fits Deere Combines

New for Deere "Titan" series combines is an 18 in. high fold-down grain bin extension that adds 50 bu. of capacity.

"You can put the combine in the shed every night by simply releasing a latch to fold down the bin extension," explains Kenneth Walton, sales manager of Walton Rebuilding, Delphi, Ind. The company also rebuilds and hard-surfaces worn out snapping rollers on corn heads.

The fold-down bin extension installs with only 10 existing bolts and requires no drilling or welding. "It's made of see-through hardware mesh so you can see when grain in the bin nears the top. And, it's painted green to look like part of the original



See-through extension lets operator see when grain in the bin nears the top.

equipment — not like an add-on," notes Walton.

For more information, contact: FARM SHOW Followup, Walton Rebuilding, Rte. 4, Box 113, Delphi, Ind. 46923 (ph 317 564-2990).