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**BOLT-ON MINI SWEEPS CAN BE POSITIONED AT ANY HEIGHT ON TINE**

## Cultivator "Shoes" For Tine Harrows

Canadian farmer Garnet Kyle converted his 80-ft. tine harrow into a light-duty cultivator by bolting 2-in. mini-cultivator "shoes" to each tine.

The converted harrow takes a lot less power to pull than a regular field cultivator but kills weeds and volunteer crops better than harrows alone. "I save time. I can travel the field once now, instead of the two or three times needed with 3/8-in. dia. tines," says the Dominion City, Manitoba, farmer.

Turned upside down, the 2-in. wide attachments Kyle invented become field packers. "There are 32 shoes on 5 ft. of harrow. So I get overcoverage. On our heavy soil, the attachments pack more than several passes over with harrows," says Kyle, noting that once packed with the mini-attachments, the soil is left grooved and slightly lumpy for better resistance to wind erosion.

On 80 ft. of harrow, there are 512 tines. The mini-attachments sell for \$1.25 apiece

(U.S.), so a farmer can equip 80 ft. for about \$650. The attachments are made of tempered steel for long life and bolt to the tine with a set-screw. Kyle farms heavy clay soil in the Red River Valley, near the U.S.-Canadian border. He's worked more than 4,000 acres with a set of mini-attachments and says he's seen "no noticeable wear". But he cautions that farmers with abrasive soil, such as sandy loams, should use the attachments "sparingly".

Depth of the mini-cultivator shoes can be set anywhere up and down the length of the tines. "Mounted 2 in. from the end of the tine, the attachment skims the soil to break the crust. Mounted near the end of the tine, the mini-attachment works underground almost as deep as the tine would normally go.

For more information, contact: FARM SHOW Followup, Mini-Cultivator Attachment, Grainews, Box 6600, Winnipeg, Manitoba R3C 3A7 Canada (ph 204 944-5568).

**LETS YOU EXTRACT SAMPLES AT ANY TIME FROM ANY LEVEL IN THE BIN**

## First-Of-Its-Kind Grain Bin Sampler

You can take samples of stored grain from any level in the bin at any time with an easy-to-use new in-bin grain sampler invented by Canadian farmer-manufacturer Don Dutertre, Dinsmore, Sask.

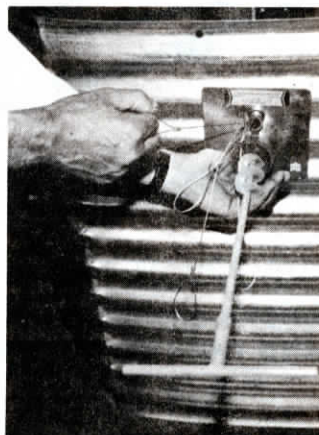
The sampler consists of a 2-in. dia. PVC pipe that's suspended from the roof of the bin somewhere near the center. This pipe, which runs from the top to the bottom of the bin, has small spring-loaded "gates" spaced every 5 ft. (or at whatever spacing you need).

Individual wires run from each gate down through the center of the sampler pipe and out a portal installed in the side of the bin. Each pull wire is coded so you can tell at a glance which gate each will open. To take a sample, you simply pull on a wire to open the gate and then collect the sample with a small hand auger that inserts into the bottom of the sampler pipe. On hopper bottom bins, the sample falls out by gravity.

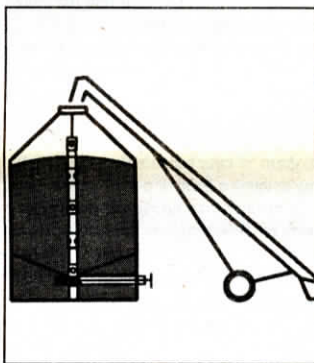
"All samples are taken from one location at ground level so you don't have to open your bin. You can check the sample for temperature, moisture and contamination from bugs and fungal growth," says Dutertre, who's "Grain-Check" fits any bin. More than one unit can be installed on larger bins, if needed. Bottom brace easily slips out of the way for operation of sweep augers.

The basic model, for 5,000 bu. bins, sells for \$189. Dutertre is looking for distributors.

For more information, contact: FARM SHOW Followup, Dutertre Manufacturing, Inc., P.O. Box 222, Dinsmore, Sask. Canada S0L 0T0 (ph 306 846-2005).



To take a grain sample, you pull a wire to open an inside gate(above), then auger it out. Plastic pipe (2 in. dia.) suspended from ceiling has spring-loaded gates spaced every 5 ft. (below).



**AUTOMATICALLY STORES FLAT AGAINST SIDES OF TRUCK BOX**

## Slickest Truck Top We've Ever Seen

You've never seen a truck top like this automatic fold-down cover built by Lloyd Hamilton, Cymric, Sask.

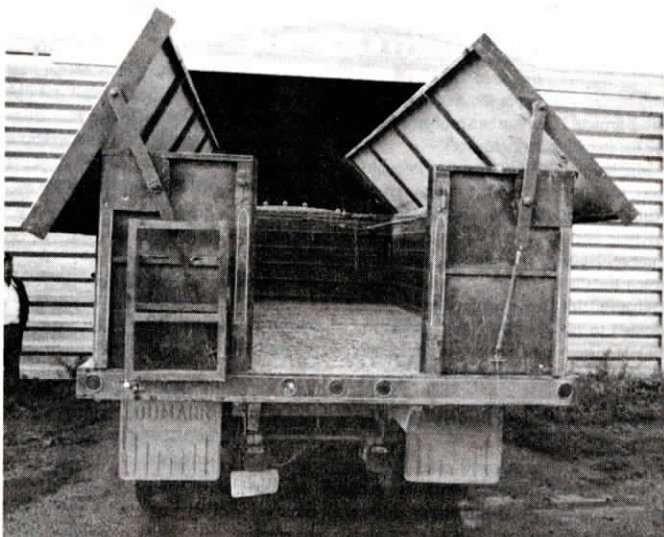
In the closed position, the two halves of the top lie flat across the 2-ton truck bed, tightly sealing loads of grain from rain and wind. When Hamilton flips a hydraulic

lever just behind the cab, the two halves of the cover quickly lift up and slide down the outside of the truck box. In the down position, they take up only 2 or 3 in. of room.

"I like it because you don't need much room to open it. They slide down flat against the sides out of the way," says Hamilton, who raises seed grains that must be handled carefully.

He built the truck top's unique opening mechanism by bolting two 12-in. dia. pulleys to a pair of pivoting brackets at the front of the truck box. The pulleys are turned by belts from a gearbox and hydraulic motor mounted along the lower front of the truck bed. As the pulleys turn, they flip the brackets upward, lifting the two halves of the cover which slide down along the truck sides. To flip the covers back into closed position, the direction the pulleys turn is simply reversed.

Contact: FARM SHOW Followup, Lloyd C. Hamilton, Box 12, Cymric, Sask. Canada S0G 0Z0 (ph 306 484-4627).



When "open" button is pushed, the two halves lift up and slide down the sides of the truck.



Two belt-driven 12-in. dia. pulleys (one on each side) open and close the two halves of the cover.