

SPEEDY INSTALLATION WITH LOW HORSEPOWER REQUIREMENTS

Home-Built Tractor Tiler Lays Small (1 1/2-In.) Tile

Small, 1 1/2-in. dia. drainage tile does as good a job as 4-in. dia. tile, according to Canadian farmer Clarence Persall who's been testing the easier-to-install tile with a home-built tiler on his farm near Waterford, Ontario.

"The idea of using small diameter tile came from Europe. Since there were no commercial machines available to install it, we built our own," says Persall. He worked with ag engineer Don Hilborn, a government researcher in Cayuga, Ontario, to tile a number of fields.

Persall, together with his brother Doug and son Brad, spaced the 1 1/2-in. dia. plastic tile on 15-ft. centers in 500-ft. long runs at approximately 16 to 24 in. in depth. They say the flow rate after a rain is 1 to 1 1/2 gal. per min. in the second year of installation. "That's equal to or more gallons per minute than we get with 4-in. tile at a depth of 24 to 36 in. Our tests were in clay loam soil," says Clarence.

The Persall's run small diameter tile between existing runs of larger tile where they still have wet spots. On newly tiled fields, they first lay main lines with large diameter tile and then run small dia. tile between.

"A field can be tiled every 15 ft. with small tile for the same cost as conventional tile at 50 ft.," says Clarence.

The small dia. runs are connected to the larger tile by digging down to the tile and cutting an opening with a hole saw. Then the Persall's simply use their home-built tiler to lay the small tile at speeds of 1/2 mph with a relatively small 2-WD Ford 5000 tractor. "That's the biggest advantage. You don't need a huge machine and it goes in fast and easy. We run the tractor at 1,000 rpm's in 1st gear," says Persall.

Depth of the 3-pt. mounted shoe is controlled by a top-mounted hydraulic ram, not by the tractor 3-pt. Persall says this allows the shoe to slide to the bot-



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tom of the cut. To keep the shoe on proper grade, they use three methods. On difficult runs, they use a transom and "watch stick" fastened to the tiler itself. There is also a level mounted on the shoe shank that can be viewed from the tractor through a rear-view mirror. For runs that follow the grade of the land, dangling lengths of chain can help maintain depth. On larger jobs, a laser control system could be used.

The shoe and shank are built from one piece of steel cut out of 1-in. thick steel plate. The boom was built from heavy tubing and steel plate. It could easily be built stronger for bigger tractors, according to Persall.

For more information on test results and copies of plans for the tiler, send \$5.00 for postage and copying charges to: FARM SHOW Followup, Clarence Persall, Roanoke Farm, Rt. 1, Waterford, Ontario, Canada NOE 1Y0 (ph 519 443-5469).



As you drive through, vehicle's bumper pushes against "bumper pad" attached to the gate. After 4 ft. of travel, the gate swings open automatically.

OPENS FROM EITHER SIDE

New-Style "Bump" Gate Closes Automatically

You don't have to leave the seat of your car, truck or tractor to open or close drive-through gates equipped with a new mechanical control from Heizer Mfg. Co., Rawlins, Va.

To open, you simply drive through, letting the vehicle's bumper push against a plastic "bumper pad" attached to the gate. For tractors, you let the front wheels edge the gate open as you slowly drive through.

After about 4 ft. of vehicle travel, the gate swings open automatically. It remains open for about 10 seconds -- allowing plenty of time for the vehicle to pass through -- then automatically closes and relatches. The gate "bumps" open from either side and can be equipped with special controls to permit automatic opening and closing on horseback, without leaving the saddle.

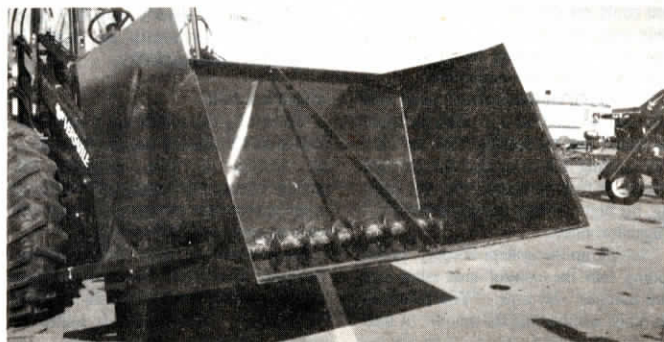
The mechanical control adapts to gates 12 to 14 ft. wide. It's designed to raise the latch end of the gate about 18 in. off the ground when fully open. "This lifting action gives the gate downhill momentum to close and latch automatically, even on inclines of up to 1 in. per foot," explains Marshall Heizer Jr., inventor-manufacturer.

He recommends that the control be adapted to gates made of tubular material, rather than panel-type gates which offer too much resistance in high winds for the opener to close the gate automatically. The device requires no batteries and no maintenance, except for a shot of grease once every 3 or 4 months.

"I think it's much more effective and economical than drive-over cattle guards for containing livestock," says Heizer. "They fill up with dirt and debris and you always get a few unruly animals that figure out how to get around them. They can't outfox this opener, which isn't bothered by mud, snow, dirt or debris. On standard cars and trucks, no modification of the bumper is required, making it easy for visitors to drive through gates equipped with this new mechanical closer."

The spring-loaded device, complete with automatic opening and closing latch assembly, sells for \$365.

For more information, contact: FARM SHOW Followup, Heizer Mfg. Co., Rt. 1, Box 21, Rawlins, Va. 23876 (ph 804 478-4327).



Built-in 14-in. dia. auger feeds material out to driver's right.

Loader Bucket Equipped With Unloading Auger

"It works great for loading silage or grain out of a pit silo and augering it directly into the feed trough or bunk," says Harold Forster, President of Harold Forster Industries, Airdrie, Alb., manufacturer of the new "Auger Bucket".

"It's faster and cheaper than using a feed wagon to auger material into feed bunks," he adds, noting that the bucket can still be used to haul and dump con-

ventional loads, such as hay bales.

The 100-cu. ft. capacity bucket attaches to your front end loader in place of the regular bucket. Since it's mounted on your loader, height is adjustable to feed into nearly any height fence line or portable feedbunk. Forster notes that the tractor should have at least 100 hp. and 4-WD or MFWD to handle the bucket and load.

The bucket measures 8-ft. wide, 4-ft. high, and 4-ft. tall and weighs 1,000 lbs. Its hydraulically-driven, 14-in. dia. feed-out auger can be removed in just a few minutes for hauling gravel and other loads that you want to dump. The auger's equipped with teeth to handle silage and feeds material out to the driver's right.

A manually operated slide door keeps material from coming out the side of the

bucket during transport.

Forster notes that the bucket also works well for feeding range cubes, pellets and even sawdust. It sells for \$2,850 (Canadian).

For more information, contact: FARM SHOW Followup, Harold Forster Industries Ltd., Box 1049, 143 East Lake Blvd., Airdrie, Alta. Canada TOM OBO (ph 403 948-3663).