

Power Sweeper Cleans Gutter Grates

John Miller says he had several dairy farmers ask how to mechanically clean gutter grates rather than scraping them by hand. So he designed and built the Gratemate, which provides a convenient and efficient way to clean any size gutter grates up to 24 in. wide.

"The Gratemate is a simple wheeled device with a durable nylon brush that rotates clockwise or counter-clockwise just by flipping a switch," says Miller. "The machine is available with a gas engine or as an electric unit, with power from a 24-volt battery. The battery operates the machine up to 10 hrs., then plugs into a 24-volt charger for re-energizing. The Gratemate is built on a compact metal frame and rides on 10-in. rubber tires, so it's easy to maneuver through

narrow doors or down alleyways."

Miller says the machine has a nylon brush, similar to that on a street sweeper, that rotates at 40 rpm. The brush is adjustable up and down and provides excellent cleaning action in forward or reverse. A water hose can be connected for additional cleaning power, or to just clean residue off the brush after it's used in dry conditions.

Miller says the gas model is priced at about \$2,400 and the electric model \$3,600. Raw material costs may change the price of a completed machine. Order direct from J Miller Ag Equipment by calling the company.

Contact: FARM SHOW Followup, J Miller Ag Equipment, 54 Christiana Pike, Christiana, Penn. 17509 (ph 610 593-6112).



Gratemate uses a rotating nylon brush to clean gutter grates up to 24 in. wide. A water hose can be connected for additional cleaning power.

Tillage Unit Converted To Cover Crop Seeder

The Verti-Seed Cart from Suplee Hollow Machine turns field cultivators, disks and other tillage toolbars into cover crop seeders.

"A local farmer came to me with the idea," says David Stoltzfus, Suplee Hollow Machine. "He had used a drill for his cover crops for a number of years. When he went to vertical tillage, he wanted to till and seed in one pass."

Working with his customer, Stoltzfus came up with the Verti-Seed Cart. Its 100-bu. cart trails the tillage system. A manifold and distribution system is bolted to the tillage unit toolbar. It can be removed without modification to the tillage tool.

"Our prototype was developed for a 20-ft. Salford vertical tillage system," says Stoltzfus. "With the 100-bu. hopper, my customer could vertical till and seed cover crops for most of the day without stopping to refill."

The Verti-Seed prototype manifold has 12 hoses with seed deflectors on their ends. The hoses are mounted across the length of the toolbar ahead of the first set of discs. Stoltzfus says the design can be easily adapted to larger or smaller tillage units.

A hydraulic motor-driven pneumatic

system is mounted on the cart, as is a scale. An on-board controller provides automated calibration and instant adjustment. An auger on the cart delivers material into the 6-in. dia., airflow tube that carries material to the manifold.

Calibration mode involves weighing the material in the hopper before and after a set number of auger turns. The weight difference is used to calibrate how much material is used per auger turn, which in turn is matched to ground speed.

"It doesn't matter what material you have," says Stoltzfus. "Any density can be calibrated in the field in a 3-min. process."

Stoltzfus notes that the Verti-Seed system would work as well for fertilizer as it does for cover crop seed. The current design has a 5,600-lb. capacity. However, it could be built lighter or heavier to adapt to a customer's need. While the prototype has a poly tank, future tanks will be stainless steel.

"We are now building a second Verti-Seed Cart for more testing this fall," says Stoltzfus.

While prices may vary according to steel and other component prices, Stoltzfus suggests a base machine with cart and distribution system would run in the \$20,000



Verti-Seed Cart converts field cultivators, disks and other tillage toolbars into cover crop seeders that can till and seed in one pass.

range. "With all the bells and whistles, the Verti-Seed Cart is in the \$40,000 range," says Stoltzfus. "That would include the rate controller, calibration system and mounting kit."

Contact: FARM SHOW Followup, Verti-Seed, 255 Buchanan Rd., Honey Brook, Penn. (ph 610 469-4169).



Manifold and distribution system uses 12 hoses with seed deflectors on their ends.

Side-Mount Ditch Mower

"I came up with a method of mounting a push mower alongside my riding mower to cut grass on ditch banks and in other difficult areas," says Leo Allgire, Montpelier, Ohio.

Allgire uses the side-mount mower on his Deere 1025R tractor. It lets him extend a 20-in. push mower as far as 6 ft. out to the side of the tractor.

With its handle removed, the mower is attached to a 6-ft. long arm made from 2-in. tubing that bolts into a bracket already on front of the tractor. The hinged arm is raised and lowered by a hydraulic cylinder that operates off the tractor's auxiliary hydraulic outlets.

The mower deck is suspended from a pair of short chains attached to a U-shaped bracket. One chain attaches to the middle of the deck in front of the engine, and the other attaches behind it. The design allows the mower to flex sideways and follow the ground contour of the ditch bank.

"It's simple to use and results in a nice, even cut," says Allgire. "I came up with the idea because I have a 200-ft. long ditch bank next to a road in my front yard. I built my first model about 15 years ago and have rebuilt it 3 times since then to fit different tractors. At first I left the handle on the mower, but I later removed it just to get it out of the way.

"I start mowing at the top of the ditch bank



Push mower extends 6 ft. out to side of tractor to cut grass on ditch banks (above). Deck is suspended from a pair of short chains that allow mower to flex sideways.

and make several passes to mow down the ditch bank as far as possible. Then I start mowing up from the bottom of the ditch. A 1 1/2-ft. long chain is attached to the middle part of the arm, and by hooking it onto the hydraulic cylinder I can raise the mower even higher."

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