

Self-Propelled Landscape Rake Equipped With Powered Drum

A hydraulic-operated rotating drum is at the heart of this self-propelled landscape rake built by Bernard Wielenberg of Grey Eagle, Minn.

He built the patent pending machine out of an old Massey Ferguson self-propelled swather. It's equipped with a 9-ft. wide rotating drum made from an 8-in. dia. steel pipe, with 5/8-in. rebar spaced 3 in. apart welded on in a spiral around the entire length of the drum. As the drum turns, it chews up the soil and shoves small rocks and clumps of sod off to the side.

The machine is powered by a 6-cyl. Chrysler engine and hydrostatic transmission off the Massey Ferguson swather. The rig's rear axle and transmission are off a Ford F-150 1/2-ton pickup. The axle and differential face backward, with the swather's transmission used to shaft-drive the pickup transmission.

The engine shaft-drives several hydraulic pumps and motors that rotate the drum, tilt it from side to side, and move it back and forth at an angle.

"It does an excellent job of leveling the

soil and leaves a smooth seedbed to plant grass into," says Wielenberg. "I came up with the idea because I recently built a house with a large yard and needed a better landscape rake. I also use it to help my son with his excavation business. It works on the same principle as a road grader except for the powered drum. The front wheels even automatically tilt to the side when turning, just like on a road grader."

He says the self-propelled machine is easier to operate than a skid loader-mounted landscape rake. "It runs smoother and doesn't bounce up and down as much, which can jerk up a lot of big rocks and gouge the soil. The rotating drum just slides over rocks," says Wielenberg. "I also have a much better view."

The center of the drum is suspended from the wheel hub off a Ford F-350 pickup, which rides on the ball hitch off an old trailer house. The drum is rotated by a hydraulic motor that chain-drives a gearbox located at one end of the drum. A pair of vertical hydraulic cylinders raise or lower either side of the drum independently. "Each cylinder is controlled by a separate valve," says



Self-propelled rake uses a 9-ft. wide rotating drum to chew up the soil and shove small rocks off to the side, leaving a smooth seedbed to plant grass into.

Wielenberg.

The rig's cloth seat is off a Plymouth van, the steering wheel off the swather, and the steering gear off a 1970 Chevrolet van.

Wielenberg says he's looking for a

manufacturer.

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As automated harvester moves through the field, an "air knife" pushes picked berries onto a conveyor which delivers them into a collecting bin. Photo at right shows the company's self-propelled picking machine with hydraulically-controlled platforms.

Automated Berry Harvester Reduces Fruit Loss

"Our new harvester uses high volume, low pressure air to move blueberries and raspberries through the machine, reducing field loss beneath the plants by as much as 60 percent," says Blueline Manufacturing owner Gregg Marrs.

Marrs says the all-wheel drive machine uses a CANBUS system that reduces wiring and hydraulic hose circuits by 25 percent. The operator platform has a touch screen control system that shows the speed of each machine operation. As the machine moves through the field, the automated air knife pushes picked berries onto plates, and then to a conveyor and collecting bins.

This 3rd generation harvester has its own 75 hp. engine with 4-WD. Harvest speeds depend on factors such as fruit ripeness, plant size, variety and pruning style. Marrs says the machine can typically harvest one acre of hand-picked quality berries per hour. Priced at \$219,000, Marrs says the machine is a viable investment for growers with as little as 50 acres. He says the big advantage of owning the machine is that the grower can control his own harvest schedule and not have to rely on the availability of labor or be as

concerned about weather conditions.

Blueline also imports the Kokan 500S harvester, a pull-type machine that uses touchless pulsating air jets to gently harvest blueberries, blackberries, raspberries and black currants. The fruit is collected by a patented picking head using only pulsating air to remove the berries. The machine uses air filled collection plates that soften the drop to reduce damage and bruising. Fruit is collected in bins carried on the sides of the machine.

The company has produced tree fruit picking equipment for 15 years and last year introduced the OPH100N, a self-propelled 4-WD machine with all-wheel steering. It has hydraulically-controlled platforms that can swing into trees for easy picking. Empty bins enter the front of the machine and exit automatically from the rear with soft-drop technology. Marrs says this machine can also be used for training and thinning branches, pruning and trellis repair, which reduces the need for ladders in the orchard.

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Tree Band Stops Pests

Bugs caught by the Bug Barrier tree band are out of sight beneath the band as is the adhesive that catches them.

The climbing bug band consists of 2 materials. The first is a double layer of 3-in. wide white fiber that is wrapped around the tree. In the case of deeply furrowed bark, a narrow putty knife should be used to push the fiber into the furrows so it clings to the bark.

The bug-catching material is a green film with adhesive on one side, covered by protective backing. Once the film is cut to provide an overlapping layer, the protective backing is removed. The upper edge of the film is wrapped against the fiber, leaving about 3 in. of the film hanging down below the fiber and about 1 1/2 in. away from the tree trunk.

As pests climb the tree, they encounter the fiber layer forcing them to climb out on to the adhesive. The system has been proven effective. In a test on fall canker worms in Charlotte, N.C., a bug barrier on a single tree captured 9,500 adult females. Each one was estimated to be carrying from 100 to 200 eggs, so it effectively removed from 1 to 2 million pests.



As pests climb tree, they encounter a fiber layer in tree band that forces them out onto a layer of adhesive.

Bug Barrier Tree Bands are available in different length kits. The 10-ft. kit is priced at \$32.99.

Contact: FARM SHOW Followup, Little Hardware Co., Inc., 1400 South Mint St., Charlotte, N.C. 28203 (ph 704 253-4782; www.littlehardware.com).

"How I Made Our Yard Hydrant Easier To Use"

Bill Collins, Clinton, Mo., recently sent FARM SHOW photos of the 2-ft. long extension he mounted on the handle of his new yard hydrant. It provides the operator with more leverage, and makes it easier for his wife to use the pressurized hydrant.

"My wife is 70 years old and weighs only about 100 lbs. Unfortunately, the plumber installed the hydrant so close to our barn that she found the handle difficult to lift," says Collins.

He removed the handle and drilled a hole through it. Then he welded a 2-ft. length of 1 1/2-in. dia. pipe to a small, U-shaped channel iron bracket and bolted it on.

"It works slick. My wife is really happy with it," says Collins. "It's so easy to use that our 7-year-old grandson can operate it. When my 80-year-old friend saw how easy it is to use, he went home the same day and made one for himself."

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A 2-ft. long pipe mounted on hydrant handle provides operator with more leverage.



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