

Fence Cleaner Chops Tumbleweeds, Thistles

Mark Stelter and his son, Preston, created a machine that removes and chops tumbleweeds and thistles along fence lines.

The New Leipzig, North Dakota, inventors rent out their fence cleaning machine, which eliminates hours of hand labor.

"One customer cleaned a mile long fence in an hour," Mark says. "He said it would have taken all day or longer by hand."

The fence cleaner is pulled behind a minimum 50 hp tractor. It's offset slightly to the right side. Its size is similar to a silage chopper, Preston notes, at about 11 by 11 ft. by 5 ft. tall.

It runs off the tractor's pto and hydraulics. Driving at 1 mph, the vertical picking unit - with street sweeper-type bristles - runs close to the fence wire, picks up weeds and debris, kicks it over to the machine and chops it up fine into 2 to 5-in. lengths with double-edge knives. The debris is fine enough to blow through the wire fence and disperse, Mark says. Along chain link fences, the windrow of chopped weeds could be baled and used for windbreaks or bedding.

Tumbleweeds banked against fences first caught Stelter's attention in 2002, when the weeds were especially thick due to drought conditions.

As the third generation owner of Stelter Repair, Inc., Mark came up with a design, and Preston did most of the work building and testing the fence cleaner.

"The concept we have is down to a one-pass system. It picks and chops at the same time," Mark says. "The closer you can keep it to the fence, the better the job."

Customers have been very interested in it, Mark says. But it may be a piece of equipment landowners rent or purchase in a partnership. The fence cleaner is in the patent process and Mark expects the cost to be \$20,000 to \$25,000.

As he's driven through Midwest and Central U.S. states, Mark says it appears the machine would be useful in many places. State highway departments, conservation districts, departments of natural resources and other agencies will also likely be interested.

One recent customer said he was amazed



Vertical street sweeper-type bristles pick up weeds and debris and kick it over to the machine, which uses double-edge knives to chop the material up fine.

how the machine chopped up the tough tumbleweeds even under damp conditions. He couldn't even see the machine because the weeds were so thick, but they kept feeding into the machine and windrowing behind, he told Mark.

The Stelters hope to have machines avail-

able for sale by fall.

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Add-On Culti-Diker Makes Mini Ponds

Making thousands of mini ponds per acre to catch and hold water for crop use isn't a new idea, but it's never been easier than with the new Culti-Dikers from Ag-Vantage. They simply hook on to existing equipment. Best of all, when they're not needed, just lift them up, and they're out of the way.

"The Culti-Diker units are light enough that they can mount right to a drill or row-crop cultivator without tearing it up," says Jeff Jarolimek, president, Ag-Vantage. "We have guys who have used them for four or five seasons, and they've had no problems."

The Culti-Diker bolts directly on the rear shank of most cultivators. Grain drills need a 2 by 2-in. bar mounted across the rear, and then the Culti-Diker is mounted to it. As the unit is pulled through the field, one of three rotating paddles slides into the dirt before flipping over for the next shovel to fill and in turn flip, leaving behind a depression.

Jarolimek says the pockets are 2 to 6 in. deep and 12 in. long by 6 in. wide. The Culti-

Diker Max with four paddles digs even deeper, making pockets 6 to 12 in. deep.

"I've had guys tell me the pockets have stayed the whole season," he says. "Others use them after planting until the first or second cultivation in the field. Still others use it on their final trip through the field."

The Culti-Diker is priced at \$345 standard or \$382.50 with an extra downpressure, heavy duty spring. Ag-Vantage also makes toolbars and track fillers for use in pivot irrigation fields and an extra heavy duty Culti-Diker that requires a separate bar behind a ripper. It weighs 150 lbs.

"The Culti-Diker works in both irrigation and dryland situations and can easily be moved from one piece of equipment to another," says Jarolimek. "If they're not needed, it is simple to lock them up out of the way."

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Culti-Dikers hook on to existing equipment. When they're not needed you can just lift them up out of the way.

Silo-Bag Cleaner Makes Disposal Easier

It's a cross between a mower conditioner, wringer washing machine and a baler, say engineers at the University of Wisconsin-Madison who hope that one day their prototype silo-bag washer will be widely used to help farmers dispose of plastic used for silage bags and bunker covers.

Getting rid of the used plastic has been a problem for years, says Brian J. Holmes, Biological Systems Engineering professor. Consider that one 300-cow operation can use as many as 12 silage bags a year. That amounts to 3,600 ft. of plastic 12 ft. in diameter.

The plastic is bulky to handle and expensive to dispose of at landfills - if you can find a landfill to accept it. So many farmers simply burn or bury it, which is illegal in most states. Or they don't do anything at all and the plastic piles up.

Recycling is the best solution, but the plastic needs to be cleaned first. A UW engineer student designed and experimented with a prototype that brushes the dirt off the plastic, pulls the plastic through rollers and deposits it in a basket where it is compacted with a plunger, ready to be tied into a plastic bale

about the size of a small hay bale. The machine operates off a tractor's hydraulics.

In a recent demonstration, the bales were loose, Holmes says, and there were mechanical problems that need improvement. "We're in the early stages," he emphasizes. "We need to get it to work better." The goal is to improve the machine and demonstrate it at Farm Technology Days in Green County, Wisconsin, in September.

Ideally, producers would be able to clean and bale the plastic and transport it to a recycler. Or an entrepreneur would take the machine to farms, bale the plastic and haul it away. It may be feasible to recycle the plastic into a variety of products or use it as a fuel.

"The whole thing hinges on economics," Holmes says, as well as what regulations may be created in the future.

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Prototype silo-bag washer may one day help farmers dispose of plastic used for silage bags and bunker covers. It brushes dirt off the plastic, pulls the plastic through rollers and deposits it in a basket where it's compacted with a plunger, ready to be tied into a plastic bale about the size of a small hay bale. The machine operates off tractor hydraulics.

