



The machine makes a vacuum that sucks residue into the hammermill which then "totally pulverizes" all crop material and deposits it back on the ground.

Giant Mobile Chopper "Disappears" Straw

You've never seen anything like this giant chopper that pulverizes straw and other crop residue in the field, then puts it back on the ground where it's sprayed with a solution that helps break down residue and control potential virus and pest problems.

The tractor-pulled mobile chopper is equipped with a hammermill powered by a 400 hp Cummins diesel engine. The machine works a 12-ft. wide swath chopping down to about 2 to 3 in. off the ground. The machine creates a vacuum that sucks residue into the hammermill which is equipped with specially designed blades that whirl around at about 100 mph. The vacuum created by the chopper pumps the "biodegradable surfactant" out of a 600-gal. tank and sprays it onto bare ground. As the residue falls back to the ground, it's sprayed again.

"Farmers are skeptical until they see it work," says inventor Gordon McKee, a retired farmer and welder from Amity, Ore. "The pulverized straw forms a layer of fine residue that coats the ground through win-

ter to protect new growth. In spring, it rots away. The machine can also be used on corn stalks and other residue provided the material being chopped is dry.

"The machine weighs 10 tons. I use a 170 hp tractor to pull it which is more power than I need. It's important that the hammermill always operates at peak capacity so it stays clean. My average speed is about 4 mph, depending on field conditions. The spray solution costs about \$10 per acre to apply at an application rate of 1/2 gallon per acre."

Four hydraulic cylinders raise or lower the machine to put it at the proper cutting height. The cutting system and treatment solution pump are pto-driven.

McKee plans to sell the first 5 straw recycler machines he builds for \$85,000, although he expects final production units to cost more.

Contact: FARM SHOW Followup, Gordon McKee, Keeway, Inc., 7120 Perrydale Road, Amity, Ore. 97101 (ph 503 835-3183 or 503 623-3051).



Hochstetler modified an old hand-held corn knife to cut off ends of ears.



De-silker uses a 1/4 hp electric motor to "power" a paint brush.

Slick Way To Husk Corn

For every problem, there is an inventor who can find a way to solve it.

That's certainly the case with Milan Hochstetler, Cumberland, Va., who raises a large "family plot" of sweet corn each year for he and his wife as well as his children and their families. They have a lot of corn to process at the end of summer so Milan went looking for a better way to shuck it. He came up with a couple pieces of equipment that speed up the job.

"The chopper cuts off the ends of the ears. I used an old hand-held corn knife like they used to use when putting corn in shocks. I drilled a hole at the outer end and pivoted it on a wooden trough that holds the ear. The knife blade is guided up and down by a piece of wood with a narrow slot in it. After we chop off the end of the ears, husks come off easily.

"I also made a de-silker using a 1/4 hp,

electric motor with a wooden disk mounted on the shaft and a paint brush with the handle cut off bolted to the edge of it. A block of wood bolts to the opposite side of the disk to counterbalance the weight of the paint brush.

"At first we tried using two brushes but that made it too aggressive. Even with one brush, you have to be careful not to press the corn against the brush too hard. It can bruise the corn.

"Juice from the corn builds up on the brush and needs to be washed off with detergent after an hour or so. We normally have a safety shield over the wheel but it was removed to take this photo.

"This method is at least 3 times as fast as removing silks by hand."

Contact: FARM SHOW Followup, Milan Hochstetler, Box 233, Cumberland, Va. 23040 (ph 804-492-4295).



New track system makes use of an add-on axle that mounts behind tractor's original rear axle. Each track is held in place by a row of steel spring guides.

ADD-ON AXLE "WRAPPED WITH TRACKS"

Rubber Track System For Utility Tractors

"It has tremendous flotation on soft ground which allows it to go just about anywhere, and the tracks can be quickly removed so you can use the tractor on wheels for other jobs," says retired engineer Chuck Williams of Vancouver, Wash., about the rubber track system he designed for his Ford 1720 37 hp, 4-WD tractor.

Williams has a lot of experience with rubber tracks, having designed them for snowmobiles for many years. His new track system makes use of an add-on axle that mounts 6 ft. 4 in. behind the tractor's original rear axle.

Williams removed all the tractor's original wheels, replacing them with duals all the way around, mounting big truck tires at the rear.

The 2 1/2-ft. wide cleated tracks wrap around the tires on both rear axles. The tracks have 1-ft. long, 1 1/4-in. high rubber cleats staggered every 6 in. To hold the tracks in place, a row of steel spring guides inside each track runs between the dual wheels on both axles. The guides allow the belts to stretch under stress, then return to their original shape. Both tracks are supported by a hydraulic suspension system that mounts on the tag-along axle.

An 8-ft. sq. steel platform mounts behind the tractor seat over the tag-along axle. The platform bolts directly to the tractor frame and can be used to haul spray tanks, fertil-

izer, hay bales, etc. A backhoe can be mounted on back of the tractor and a loader in front.

"It converts a small tractor into a multi-purpose rig that can be used all year long," says Williams. "The tracks have 7,240 sq. in. of belt in contact with the ground and the tractor and track together weigh only 3,240 lbs. Ground pressure is only .222 psi compared to 3 or 4 psi for most conventional rubber tracked tractors this size. The track floats right over mud and snow and can even run over your toes without hurting them. Track thickness is only 3/8 in. thick. It's the same belting I use on the snowmobiles I build. It's very flexible so it'll stretch as needed without damage.

"It takes only 1 1/2 hours to remove the tracks and put the wheels back on. I made an adapter plate that bolts onto the original wheel hubs to carry the outside dual wheels. To mount the tracks on each axle I let the air out of the first wheel and slide the track over it, then mount the outside wheel and pump up both tires."

Williams is looking for a manufacturer and says that a tractor equipped with his track system, as well as a loader and backhoe, could be marketed for about \$50,000.

Contact: FARM SHOW Followup, Chuck Williams, Box 804, Vancouver, Wash. 98666 (ph 360 573-1177).

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