Photo courtesy Minnesota Agricultural Utilization Research Institute

Steve Lorentz has used corn stalks ground in a tub grinder to mulch 20,000 trees.

Tub Grinder Used To Make Cornstalk Bale Mulch

"I've used it on 15,000 of my trees and about 5,000 others and they're doing great," says Steve Lorentz who uses a tub grinder to lay down a mat of mulched cornstalks around the base of his young trees to keep down weeds and limit rodent damage.

The Stanton, Minn., tree farmer is finding cornstalk mulch works as well as commercial plastic mulching material but costs much less, as little as $1.50 per tree. He gets 5 by 6-ft. cornstalk bales from local farmers.

He uses a Patz tub grinder to shred cornstalks into 1 to 3-in. pieces, then blows the material around the base of the trees in an 8-in. deep mat through the machine's polyurethane hose. Lorentz equipped the tractor-pulled grinder with a hose swivel that pivots 270 degrees so he can blow the mulch up to 15 ft. in any direction from the grinder.

Using the tub grinder, Lorentz can mulch up to 400 trees per hour.

The mulch lasts about two seasons before it degrades and that's about ideal for the young trees that are hardy enough to do without it after that length of time, he says.

Lorentz also planted 200 tomato plants into a 6-in. thick cornstalk mulch this year and uses it on flowers planted around his house with good results.

He wants to make the system more mobile, perhaps by mounting the grinder on a truck, to make it more practical, he says.

Contact: FARM SHOW Followup, Steve Lorentz, 33249 35th Ave., Stanton, Minn. 55018 (ph/fax 507 263-4021).

Photo courtesy: Carl Ferencz, Oshawa, Ontario

Kerry's lock-in-a-tube consists of a lock inside a 5-in. dia. piece of pipe. Keeps thieves from using a bolt cutter on lock.

Simple, Crook-Proof Lock-In-A-Tube

None of the high-tech crime-fighting gadgets money can buy work as well as this simple-to-build "lock-in-a-tube" that a North American farm equipment dealer came up with.

"We tried motion detectors, cameras and security lights and were still getting broken into every six months," says Arnold Kerry, Utica Farm Equipment, Port Perry, Ontario. "We haven't lost a single lock since we came up with this idea last year."

Kerry welded lengths of 5-in. dia. pipe to the top of his gates, which are made of 4-in. dia. pipe, to completely enclose padlocks so that bolt cutters can't be used on them.

The 15-in. long pipe sections weld at 90 degree angles to strap iron on top of the gates. The strap iron forms a clevis that attaches the gates together with the pin running up through the clevis. The padlock fits inside the pipe and secures the gates.

"The only way to get at the locks now is to use a torch or hammer and chisel and that evidently attracts too much attention for crooks," Kerry says. "The real beauty of this idea is that it can be adapted to any situation, including the farm."

Cost to install the guards on both the front and back gate at his dealership was less than $100 (Canadian).

Contact: FARM SHOW Followup, Utica Farm Equipment, P.O. Box 717, Port Perry, Ontario, Canada L9L 1A6 (ph 905 985-9701; fax 9704).

Unit mounts on a four-wheel cart built out of 2-in. sq. tubing. An oversized radiator out of a 3/4-ton pickup cools the engine.

The gearbox is at a right angle to the engine crankshaft instead of in-line so it doesn't take up much room.

Power Cart Fitted With Portable PTO, Air Compressor

By C.F. Marley

"It's cheaper than using the 40 hp tractor I used before and it's a lot more maneuverable. If you have a flat tire out in the field, you can pull this rig right out to it," says B.L. "Butch" Uhnken who built a portable power cart fitted with a pto and an air compressor.

The Jacksonville, Ill., farmer primarily uses the portable rig to power an 8-in. dia., 72-ft. long auger at bin sites.

Mounted on a four-wheel cart built out of 2-in. sq. steel tubing, the unit is powered by a 30 hp Mercedes diesel engine off a semi trailer refrigerator unit.

It's fitted with a pto and right angle gear box that came off an old Mayrath auger.

"The gearbox is at a right angle to the engine crankshaft instead of in-line so it doesn't take up as much room," Uhnken explains. "It's pretty cramped quarters around some of the bins."

An oversized radiator out of a 3/4-ton 4-WD Ford pickup cools the engine.

Since the big radiator has a tendency to collect bees wings, the air compressor comes in handy for cleaning it off.

The air compressor is an upright air conditioning unit off an old Ford car. It's used to power a 1 1/2-in. dia. cylinder with 4-in. stroke which Uhnken uses to tighten the belts on the engine to activate the pto. The cylinder has a capacity of 125 psi's, but Uhnken used regulators to step down the compressor to 60 psi's, all that's needed to tighten the belts.

"I also put restrictors on the air line to keep from shearing auger pins when the pto starts up," he says.

The cart rides on four Deere riding mower wheels, with the front wheels set close together for easier maneuvering around bin sites.

Uhnken uses the tongue mounted on front of the cart to transport it from farm to farm behind his pickup. He positions it at sites by hand.

Out-of-pocket expense was about $400, including $200 for the Mercedes engine.

Contact: FARM SHOW Followup, B.L. Uhnken, 25 Westfair, Jacksonville, Ill. 62650 (ph 217 472-3851 or 245-4359).

"Cement Dust" Fertilizer Achieves "Amazing Results"

A new pelletized fertilizer containing cement dust is achieving "amazing results" in field tests on a variety of crops, according to a Missouri farmer who says the product boosts yields and reduces nitrogen leaching.

"First year test plots at a Midwest research farm produced amazing results," says Gregory Wommack of Silex, Mo., who's been working on the new fertilizer for years. "Soybeans treated with the product produced 6.6 more bushels per acre, a 17 percent increase. Alfalfa treated with it produced 1.9 more tons per acre."

Similar results were reported in 16 vegetable crops, four cereal grains and corn, Wommack says.

The product, Potassa-Cal, is a blend of potassium, ground calcium carbonate, calcium sulfate, and a calcium-rich by-product of cement manufacturing called cement kiln dust (CKD). Calcium and other trace minerals contained in CKD are important to plant nutrition and productivity, Wommack explains, and he and scientists have come up with a way to make a soil soluble pellet out of the fine, powdery product.

The pellets are brown in color and about the same size as urea pellets, with the same blendability as other dry fertilizers.

The fertilizer is broadcast at 300 to 400 lbs. per acre with a truck spreader at planting. Or banded with fertilizer discs on the planter at 220 to 250 lbs. per acre, with placement 3 to 4 in. from the row and 2 in. deep.

In soybeans, the product results in taller soybeans with more pods per plant. For example, in Wommack's 30-in. soybeans, plants averaged 55 to 60 in. tall with 100 pods per plant, compared with a typical height of 40 to 45 in. and bearing pods of 70 to 80 per plant.

What's more, in leaching tests on corn treated with a blend of Potassa-Cal and urea, nitrate leaching in the soil was cut by up to 50 percent.

"That's particularly impressive considering that the urea added an additional 180 lbs. of N per acre," Wommack notes. "Based on what we've seen, we expect Potassa-Cal could reduce leaching potential by 45 percent and could cut N use by 10 to 15 percent in broadcast applications."

Full benefits of Potassa-Cal may not be realized for a couple years after it's first applied, as indicated in independent tests by Arise Research, Casey, Ill., and Louisiana State University, Baton Rouge, Wommack notes.

The product is expected to be on the market this year and sell for about $130 per ton.

Contact: FARM SHOW Followup, Magic Green Corporation, 4598 Hwy. H, Silex, Mo. 63377 (ph 573 384-6300; fax 6305).