



## TIRED OF FALLING FENCES?

# You'll Like These New Fence Brackets

Latest new development in fencing are special brackets that put permanent "sag proof" strength into new or existing wooden corner or end posts.

"I bought a rundown farm more than 20 years ago and have had my share of fences to build and repair," says inventor Malcolm Cammack, Hugo, Minn. "I decided there had to be a better way to support corner and end posts."

His "better way" turned out to be an 18 ga., cold rolled steel bracket that wraps around post junctions. Four styles of brackets are available

and all styles fit 4 to 6 in. diameter posts. There are separate brackets for inside corners, outside corners, end posts and inline continuous posts.

To install, simply wrap the bracket around the post and nail it on.

Costs for the brackets are \$2.27 for inside corners; \$2.85 for inline continuous brackets; \$3.46 for outside corners; and \$3.89 for end post brackets.

For more information, contact: FARM SHOW Followup, Cammack Farm Co., 9052 140th St. No., Hugo, Minn. 55038 (ph 612 439-4553).

## EXPERIMENTAL HARVESTER TAKES TO THE FIELD

# They're Turning Cactus Into Cattle Feed

Cattlemen of the western plains region have probably wished many times that pricklypear cactus could be turned into cattle feed. Now, agricultural engineers are trying to make that wish come true.

In the USDA Crops Research Laboratory at Colorado State University, researchers Dennis Mueller and Marvin Shoop are developing a cactus harvester that will pick the plants and remove the spines from them. The fleshy part of the cactus has proven to be a nutritious feed which cattle will eat after the spines are removed.

The first stage of development has produced a machine that picks the cactus and lays it in windrows, removing up to 92% of the pricklypear cactus growth.

"The harvester is basically an International front-mounted side delivery rake," says Mueller. "We have now attached a conveyor, and we are working on a burner to be installed underneath the conveyor to singe off the spines."

The rake is supported on its own wheels which lets it ride close to the ground on any kind of contour. It has specially designed teeth that uproot the cactus and deposit it in a windrow. The rake bars have variable speed which is hydraulically controlled.

Developing the singeing apparatus will take some time, and Mueller won't speculate on how far down the road it is to a commercial machine.

Researchers do know that cattle will eat and gain well on cactus with spines removed. In tests at CSU, heifers gained 1½ lbs. daily when their basal ration was supplemented with singed pricklypear. Without the pricklypear they gained .85 lb. daily.

Spineless pricklypears are 40% higher in carbohydrate than alfalfa hay, but they have only one-third as much protein. They are about equal in total digestibility.

Cattle like the fleshy cactus leaves once they're completely de-spined. They'll eat them even when small hair-like spines escape the burning process, but won't eat cactus with any of the large spines remaining.

If this machine can be perfected, it will have the double benefit of reducing undesirable range plants and providing nutritious feed. Pricklypear cactus is considered a problem on 79 million acres of plains rangeland from Canada to Mexico. In the worst infestations, cactus yields 1,000 lbs./acre of dry matter, compared with only about 300 lbs. of dry matter from grasses.

A complete study is now underway to evaluate cactus harvest, range renewal, cost of de-spining, cattle gains and other related problems.

For more information, contact: FARM SHOW Followup, Dennis Mueller, USDA Crops Research Laboratory, Colorado State Univ., Ft. Collins, Colo. 80523 (ph 303 484-8777).



Weighing 80 lbs., the tube assembles inside the bin. Handles on inside help victim pull himself up.

## IS YOUR LOCAL RESCUE SQUAD EQUIPPED FOR EMERGENCIES?

# Grain Rescue Tube Saves Time, Lives

"There's no rescue tool like it anywhere," says Bernard Scott of Tontogany, Ohio, whose FFA club has developed a lightweight aluminum grain rescue tube for rescuing persons submerged or partially submerged in grain.

The tube is made from three curved sections of aluminum designed to pass through 22 by 22 in. grain door openings and assembled quickly inside. Bigger than a 55 gal. drum, which is what usually gets used for emergency rescues, the tube weighs just 80 lbs. A comparable size steel barrel would weigh about 250 lbs. and the opening in the grain bin would have to be enlarged to accommodate it, wasting critical time.

Here's how a typical rescue attempt might go:

It takes just seconds to become totally submerged in loose, flowing grain with the unloading auger running. If a victim becomes totally submerged below the surface of the grain, most experts say the best way to get him out is to quickly cut large openings in the side of the bin several feet above ground to let the grain flow out. If the victim is near the surface, however, or partially above it, the tube should be able to rescue them. Because of the tremendous pressure of the grain and panic, the victim may have trouble breathing.

The tube is passed inside to rescuers who should be wearing safety harnesses. It is quickly bolted together using wing nuts held in place by small chains. Then, by digging and pushing, it is sunk down around the victim. Handles all around the outside aid rescuers, and handles inside let the victim pull himself up.

The FFA'ers, who spent about \$200 for materials and \$30 for machine shop labor to bend the metal, have donated the tube to their local rescue department. The club is willing to send plans to local farm groups who might want to build one themselves.

For more information, contact: FARM SHOW Followup, Bernard Scott, Vo-Ag Instructor, Otsego High School, Box 168, Tontogany, Ohio 43565 (ph 419 823-5091).



Tube bolts together quickly with wing nuts. Handles on outside aid rescuers.