



Full bags are tied, then dumped onto the ground by pulling a pin on the hinged cage.

MAKE SILAGE WITHOUT THE EXPENSE OF A SILO OR BIG BAGGER MACHINE

Bagged Silage Cart Great For Smaller Farms

You can make chopped silage one bag at a time with a new do-it-yourself bagger cart that a Pennsylvania ag engineer says can be built for less than \$100.

Designer James Garthe told FARM SHOW the cart works great for farmers who need a limited amount of silage. "The most important benefit for smaller or part-time farmers is that it's an inexpensive way to make good quality silage."

The cart is designed to be pulled by smaller tractors without hydraulics. It consists simply of an old wagon axle and wheels, and a curved cage that supports the silage bag. Garthe made the bag cage out of 1/2 in. dia. PVC pipe slipped over heavy galvanized wire. The cage tilts forward 20° to facilitate filling and to hold the bag securely on the cart as it fills. Garthe says all parts, except the PVC and wire, can be found in salvage yards, or scavenged from old machines.

The cart tows directly behind a forage chopper or flail mower to instantly bag hay, corn or small grains as it's chopped. In hay, the crop is generally allowed to wilt for 15 min. to 3 hrs. after it's mown so it reaches the ideal moisture content of from 60 to 80%

moisture. Filling the 4 or 6-ft. dia. bags (which are normally used to bag big round bales) takes about 10 min. but when the bag first fills the farmer or a helper must climb onto the cart and pack the silage with his feet. Once the bag has been packed, and then filled again to the top, it's simply tied with twine, transported to storage and a pin is pulled on the hinged cage so that the bag - which weighs anywhere from 1,400 to 2,000 lbs. - can be dumped onto the ground.

Garthe says good preparation of a storage site is important to minimize damage to the filled bags. He recommends a closely mown area or an area scraped closely with a blade to minimize punctures.

Testing is still in progress on the small-scale bagging system so detailed plans are not yet available. However, Garthe says the trailer can be easily built and the design changed to adapt to whatever materials you have on hand.

For more information, contact: FARM SHOW Followup, James W. Garthe, Extension Agricultural Engineer, Pennsylvania State University, University Park, Penn. 16802 (ph 814 8655-4700).

HELPS PREVENT PLUG-UPS AND SERIOUS ACCIDENTS

Bin Safety Ladder's Also A "Crust Buster"

Many grain bin accidents happen when chunks of grain plug the unloading auger. Someone goes inside to pry the plug-up loose and grain suddenly comes tumbling down to cause serious injury or possibly even death.

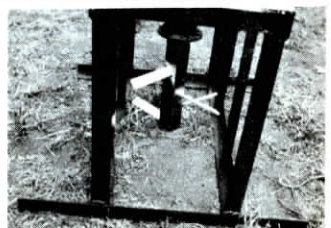
To solve the plugging problem and help ensure greater grain bin safety, a Minnesota firm has introduced a combination safety ladder-crust buster that fits all size bins.

It has a built-in, 4-blade crust-busting agitator at the bottom. If there's a plug-up, you undo it by turning the agitator handle which extends vertically to the top (or near the top) of the bin inside a 2-1/2 in. square tube. Steps welded to the vertical square tube make it easy — and safer — to climb down inside the bin. The entire assembly comes in 5 ft. sections which telescope together, without bolts or screws, for easy shipping, erection and dismantling.

Three chains that tie into the bin wall support the safety ladder. It doesn't interfere with filling the bin, or with bin stirrers, say its co-inventors Jerome Klingler and Keith Bakken.

A combination ladder-crust buster to fit a 16 ft. dia. bin costs right at \$275, plus about \$10 per ft. for bigger bins.

For more information, contact: FARM SHOW Followup, Klingler Mfg., P.O. Box 442, New Ulm, Minn. 56073 (ph 507 359-9849).



Bin agitator has 4 blades to break up grain chunks.

HE BUILT IT FOR A TOTAL COST OF \$3,885

Home-Built Spreader "Works Like A Charm"

"This is not a totally new idea but it worked out so well I thought other farmers might like to know about it," says Bob Johnson, Bagley, Minn., about his built-from-scratch truck spreader.

"About three years ago I realized I needed a larger liquid spreader and found the cost of a 3,000 gal. commercial trailer-type spreader to be in the range of \$10,000 to \$12,000. Not wanting to spend that much, I set out to see if I could put one together myself for less.

"After a couple weeks shopping around in my spare time, I located a 1960 International #190 truck and bought it for \$1,750. It

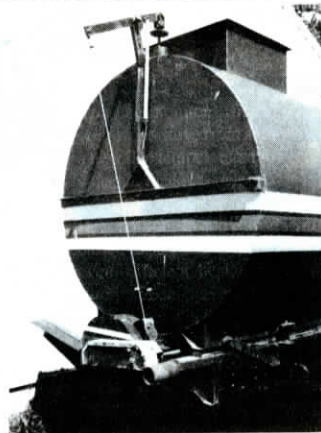
has a twin screw, which is a must for traveling in fields, and has a straight 5-speed transmission with a pto, just what I needed for this project. The 401 cu. in. gas-powered V-8 has plenty of power under all conditions.

"The frame extends 18 ft. behind the cab so I had a welding shop build a tank to fit it, following my specs, for a total cost of \$1,740. The tank has two baffles in it and I painted the inside with an epoxy paint to make it easier to clean.

"Next I needed an unloading system. Using two U-joints, I ran a long shaft from the truck pto to the back of the tank. Then I built an impeller and housing, patterning it after one I'd owned on a smaller spreader. Then I built a valve and seat to start and stop the flow of manure into the impeller. The impeller is driven by a short roller chain from the pto shaft. Controls for the pto and the valve are mounted in the cab. Cost of unloading system came to \$350.

"The final job was to paint it. A rented sprayer (\$10) and \$35 worth of paint, along with a few more hours, brought the total cost of the truck spreader to \$3,885. Because it can be classed as a self-propelled manure spreader, no license or insurance is required. It works like a charm and saves time on longer hauls on roads."

Contact: FARM SHOW Followup, Bob Johnson, Rt. 1, Box 287, Bagley, Minn. 56621 (218 694-6798).



Impeller shaft is driven by a short roller chain from the pto shaft. Controls for the pto and valve are in the cab.