



"We were amazed to discover that no machine like this had ever been patented," says Doug Strankman, farmer-inventor.

## Silage Bag Unloader

*Continued From Cover Page*

allows cattle to feed directly out of the bag (see sidebar story). It works great in situations where you can allow cattle direct access to bags. But Strankman still wanted to find a better way to get silage out of bags for mixing feed or to transport feed to cattle in other locations.

His powered bag unloader solved the problem. "It peels silage off the outer end with a toothed roller. A conveyor carries the silage up and into a wagon. All you need is one person and one tractor."

Perhaps the most unique feature of the bag unloader is that it pulls itself ahead by rolling up the plastic on a hydraulic-powered roller. That feature solves three problems at once:

- 1) It moves the unloader ahead as needed without a tractor or other power unit.
- 2) It neatly rolls up the plastic on an un-



Conveyor drops silage into waiting feed truck or wagon, greatly reducing the amount of labor required to unload silage bags.

per and lower roller, making disposal easy.

3) No shoveling is needed inside the bag because as plastic rolls up on the bottom roller, loose silage falls onto the conveyor.

All the operator has to do is slice the bag open down either side and feed the bottom half of the bag onto the bottom roller and the top half onto the top roller (Strankman was in the process of adding the top roller when these photos were taken so the top roller is not shown.)

The unloader is powered by a 60 hp. air-cooled Wisconsin gas engine that drives a hydraulic pump. It powers the 16-ft. wide beater drum - which is fitted with square metal teeth arranged in a spiral pattern around the drum - and the rollers that roll up the plastic. The feed conveyor is also hydraulic-powered.

In operation, the machine is moved ahead by raising up the beater drum and rolling up a foot or so of plastic. Then the drum is lowered to knock feed onto the conveyor. The 25-ft. conveyor consists of one long continuous set of chains driven by a single hydraulic motor.

Strankman says the drum is made out of heavy 3/8-in. wall pipe so it has lots of weight. "Frozen feed is no problem. The spiral pattern of the teeth prevents jumping as the teeth cut into the silage."

The machine loads out at a rate of 1 to 2 ton per minute. It's fitted with a hitch on one end for pulling to the next bag.

The plastic rollers can hold plastic from about half of an average size bag. Halfway through the bag, you cut the plastic and pull it off the roller for disposal.

"I've used it for almost a year now and I don't know how I got along without it. It's a great labor saver and should be standard equipment for anyone putting up silage in bags," says Strankman.

He's currently completing the patenting process. He plans to work with a manufacturer to put the machine on the market. Inquiries are welcome.

Contact: FARM SHOW Followup, Doug Strankman, Box 250, Blackfalds, Alberta TOM 0J0 Canada (ph 403 885-4000; fax 403 885-4800).



Spring-loaded plastic rollers on top and bottom roll up plastic, pulling feedgate ahead into silage.

## Self-Feeding Headgate For Silage Bags

Before Doug Strankman built his powered unloader for silage bags (see story at left), he built a self-feeding headgate for cattle that allows them to feed directly out of bags.

There are other self feeders on the market but what makes Strankman's feeder unique is that he fitted it with rollers that roll up the plastic from the bag as the feed is consumed. In fact, rolling up the plastic is what pulls the feeder ahead as cattle eat the feed.

The operator simply slices the plastic down either side of the bag and feeds the plastic onto the top and bottom rollers. "The plastic rollers are spring-loaded to keep plastic tight at all times, making a nice clean feeding area. The feeder is 16 ft. wide, which is big enough to fit around any size bag. You must set up a temporary fence about 15 ft. on either side of the bag so the feeder's portable panels can span the area between the fence and the bag."

The feedgate is bull-proof, built out of heavy 1/4-in. wall tubing. One key feature of the self-feeder is that the top layer of plastic - attached to the roller - acts as a "roof"

to keep snow and rain off exposed silage.

Strankman says people are surprised when he tells them he can feed 60 to 100 animals with one 16-ft. gate. "It takes about a week for cows to learn to stop pushing in for feed and wait for a spot to go in. Generally they feed for 1 1/2 to 2 hrs. in the morning and then again at night. In between, there are just a few stragglers," he notes.

One advantage of feeding direct from bags is that it lets you spread cattle out, reducing traffic in the yard.

If necessary, Strankman can limit cattle from pushing the feedgate too far ahead by using a chain and stake at either end of the feeder.

To move the feeder ahead, he rolls up plastic using large hand cranks.

Strankman is currently obtaining a patent on the self-feeder. He plans to work with a manufacturer to bring it to market. Inquiries welcome.

Contact: FARM SHOW Followup, Doug Strankman, Box 250, Blackfalds, Alberta TOM 0J0 Canada (ph 403 885-4000; fax 403 885-4800).



Strankman feeds as many as 100 head with this one 16-ft. feedgate. "It takes about a week for cows to learn to stop pushing in for feed and wait for a spot," he says.

## "Grain Drain" Keeps Axial Flow Combines Clean

There are "dead" areas in front of and behind the unloading augers of Axial Flow combines. You can keep these areas clean with these new poly deflector blocks.

The "Grain Drain" kit consists of a pair of 20-in. long by 13-in. wide, 10-in. deep plastic blocks that install easily on all Axial Flow combines. You simply clean out the grain tank thoroughly, then glue them in place with silicone cement. They prevent grain, dust and dirt from collecting in the dead areas.

"They make cleaning out the grain tank between crops or at the end of the season a breeze," says Kelly Behrens, manufacturer. They sell for \$125 and are available at



Plastic blocks install on either side of unloading auger in Axial Flow combines. selected Case-IH dealers or from the company.

Contact: FARM SHOW Followup, K Behr Ag Products, 112 Main St., Box 246, Albert City, Iowa 50510 (ph 712 843-5357).

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