

Retractable bunker cover system uses a set of A-frame gantries that run outside bunker walls, quickly unrolling or rolling up a weatherproof cover over silage. It's held in place by filling overlying hoses with water.



Hotze and Jan Bosch have installed retractable bunker cover systems on more than 50 farms in the Netherlands, and plan to eventually introduce it to North America.

## Retractable Bunker Cover Makes For Better Feed

A retractable bunker cover system from the Netherlands quickly unrolls or rolls up an air and weatherproof cover over fresh-packed silage. Instead of spreading out tires or sandbags, the cover is filled with water, and drained as needed. The system was developed by Hotze Bosch to improve his dairy herd's production.

"We wanted to find a better way to feed our cows," says Hotze's son Jan Bosch, Agridek Duo.

Bosch explains that the grass they harvest in spring, summer and fall differs by season in energy, protein and structure. When feeding it out of a bunker, the ration changes as you reach a new section from a different season. This lack of consistency has a negative affect on the cows.

"We wanted to layer the forage in the bunker as it was harvested like lasagna laid in a pan," says Bosch. "That way, as the silage is removed from the bunker, it would be a consistent mix throughout the winter."

To create the layers, the Boschs needed a way to quickly cover and uncover the bunker. Hotze came up with a set of A-frame gantries that run along the outside of the bunker walls. A roll-up box hangs from the A-frames inside the walls.

The strong, reusable pvc fabric connects to hooks on the roller with seatbelt-like belts every 6 to 10 ft. Hydraulic motors drive the roller and act as brakes when the system is at rest.

The cover is held in place by filling overlying hoses with water. Larger hoses lay along the walls for airtight closures. In the winter the Boschs use salt water in a closed system to prevent freezing.

"We have a bunker silo that is about 20 ft. wide by 80 ft. long. We can cover it in half an hour," says Bosch. "The hoses use around 500 gal. of water."

Their prototype worked well enough that

the Boschs continued developing and testing the system. Since 2003 they have added layers to the bunker 10 to 14 times each year. Corn and other materials, such as byproducts, can be layered over forage.

In 2014 Hotze and Jan refined the system and set up a company to make it. In recent years, they have installed systems on more than 50 other farms in the Netherlands, proving the "lasagna" forage concept as well as the mechanical system.

"Our largest system design was for a bunker that is roughly 80 by 120 ft. and 13 ft. high," says Bosch. "The roller can travel at about 16 ft. per min."

Smaller systems are also available. Because each system is customized for the bunker and the number of cows, there is no set price. However Bosch estimates the price for a system will range between \$24,000 and \$240,000.

Most installations have been with a full

system at each bunker. However, the gantries can be equipped with either fixed wheels or swivels to travel between bunkers. Separate rollup boxes would be provided at each bunker.

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The base system is powered by tractor hydraulics. However, stand-alone power is an option. Other options include a heavier duty gantry system to pull multiple covers, as well as LED lighting.

The next step for the company is to work with marketing partners to introduce it to the rest of Europe and eventually to North America. Currently the website can only be viewed in Dutch. A video about the system (also in Dutch) can be seen at FARMSHOW.

Contact: FARM SHOW Followup, Agridek, Moskoureed 11, 9087 CE Swichum, Netherlands (ph 011 33 06 134 550 14; info@ agridek.nl; www.agridek.nl).

## He Makes Custom Covers To Protect Farm Equipment

Lloyd Kerry customizes plastic fabric covers to fit everything from portable generators to drill hoppers and more. Also a woodworker, Kerry got the idea for the covers when he needed a way to transport plywood sheets in an open truck in bad weather.

"I recalled watching a woman stuff envelopes and realized what I needed was a plastic envelope for the wood," says Kerry. "I found a company in Georgia that would make one for me. When I needed more, I found a source for the plastic fabric and had them made locally with Velcro closures. Eventually I started making them myself."

When a local cable company heard about the Kerry-All Pouches, they did a story on them. Kerry soon had a call from a farm equipment company asking if he could make some for drills and round balers. Soon he had more interest in equipment covers than he did pouches.

"I started a website, and now 75 percent of the covers I make are for farm equipment, and 90 percent of them go to farmers in the states," says Kerry. "Grain drill covers are my biggest sellers, followed by covers for portable generators."

Kerry also makes covers for tools like miter saws, outdoor equipment of all types, snow blowers and pouches for pickup beds. Covers are equipped with belt-loop tabs for quick tie-down.

When he gets a call about a custom job, Kerry finds a picture of the item on the internet and prints it off. He then draws lines on the equipment to show what measurements are needed and sends the photo to the customer.

"I ask that they be as accurate as possible with the measurements," says Kerry. "Once



Customized plastic fabric covers are available to fit everything from round balers to grain drills and more.



I have the measurements, I can send a quote for the cover and shipping."

Shipping can be a large part of the expense, in large part because Kerry is in Canada. Shipping a round baler cover to Washington state can add \$60 in shipping to the bill. Shipping for a large compound miter saw cover can add 50 percent to the total cost.

A 14-ft. grain drill cover is priced at \$180.95 (U.S.), while the 4 by 8-ft. plywood pouch that started it all sells for \$69.95.

Contact: FARM SHOW Followup, Kerry Woodworking, P.O. Box 231, Charlottetown, P.E.I. Canada C1A 7K4 (ph 902 566-1333; toll free 877 566-1335; www.kerryallpouch.com).



Ladder cover is hinged on one side so it swings open like a door when you need to climb.

## Prevent A Tragedy With Wagon Ladder Cover

When a little girl in Jeremy Henry's community suffocated while playing inside a hinged wagon full of grain, he decided to do what he could to prevent a similar situation on his own farm. A professional machinist as well as a farmer, he quickly designed and built covers for the ladders on his gravity box wagons.

"I have 2 little ones and another on the way," says Henry. "The covers make it impossible for kids to climb the ladders."

The simple covers are fabricated with 2-in. angle iron frames and 14-ga. sheet metal. Hinges and a latch came from the local

hardware store. Length and width depend on the ladder.

"The hinges are attached to one side of the ladder and the latch to the other. The latch can even be locked if you want," says Henry.

He encourages others to follow his lead. The low-cost covers are easy to open for an adult, but can keep a child out of what could be a life or death situation.

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