



"It was designed specifically to handle manure with a lot of sand in it," says Darrell Zimmerman about his hydraulic-driven, tandem axle manure spreader.



Heavy duty, 5-ft. wide apron chain at bottom delivers manure to a beater on back, which spreads manure in a pattern about as wide as the wheels.

5,100-Gal. Manure Spreader Designed For Custom Work

After he couldn't find what he wanted on the market, Darrell Zimmerman built his own heavy duty manure spreader - a hydraulic-driven, tandem axle model that unloads out the back. It has a capacity of 5,100 gal., or 70,000 lbs.

"We designed it specifically to handle manure that has a lot of sand in it," says Zimmerman. "We operate a custom manure hauling business, and more and more of our dairy customers are using sand for bedding."

The spreader has sloping sides that mea-

sure 9 ft. wide at the top and 5 ft. wide at the bottom and is 22 ft. long. The undercarriage, wheels and axles were purchased from Houle Mfg. The sides are made from 1/4-in. thick steel reinforced with vertical tubing. A heavy duty, 5-ft. wide apron chain at the bottom delivers manure under a gate and to a beater on back, which spreads the manure in a pattern about as wide as the wheels.

"We finished building it last December and have used it so far to haul about 30 loads. It works good," says Zimmerman. "I use my

Case MX 240 front wheel assist tractor to pull it. I got the idea from another local farmer who built a spreader about twice as big as ours (Hess Farms, Bad Axe, Mich.). As far as I know, the biggest commercial model on the market designed for sand handles only 4,000 gal. My brother, who works at a welding shop, did most of the work.

"I paid \$10,000 for the undercarriage, wheels, and tires. My total cost to build it was around \$27,000, which is about the same as what you'd pay for a 4,000-gal. commer-

cial model. However, custom manure hauling is a seasonal business and when you're hauling hundreds of loads a year, the extra capacity makes a big difference. Also, it costs more to haul sand manure because you have to use a payloader to load the manure which is a lot slower than using a pump."

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Doug Gunnink bred his own silage corn variety that has a high test weight and is also high in protein.

Farmer Starts Seed Company

Why buy high priced seed corn when you can breed it yourself?

Doug Gunnink didn't really know how to do that, and he didn't have a million dollar research budget, but he somehow did it anyway. The Gaylord, Minnesota farmer not only bred his own line of varietal silage corn, but he thinks he did a better job than the big guys with the deep pockets and PHD's.

"Five years ago, I wrote an editorial on GMO corn and how people all over the world didn't want it," says Gunnink, an advocate of intensive grazing and sustainable farming. "I started looking at producing organic seed corn and saw some of the royalties companies were getting. I've been a Holstein breeder all my life and thought, what if I started putting those energies into silage corn."

After four years, Gunnink had produced a silage corn variety that he has named Royal. The new line began with some public lines of corn obtained from a USDA corn breeder located at Ames, Iowa. Gunnink identified some high protein and high yield lines. He planted two varieties with desirable characteristics, but from different populations, together in the same field. He then selected out of this crossbred population for standability

and dry down.

The result is a varietal cross, as opposed to a hybrid cross. It's simply the result of a cross between two open-pollinated varieties, so you can't replant the seed and get the same cross. You have to buy the seed from Gunnink.

He shoots for a 58-lb. test weight and tries to maintain a protein level of about 10.5 percent. Protein levels ran from 9.8 to 10.5 percent this past growing season. Neighbors that have the new line report 26 to 27-ton per acre yields.

He treats his seed with Soil Restore, an innoculant that he says stimulates beneficial mycorrhiza and trichoderma fungi in the soil by 6 to 10 times. He credits the more active fungi for making minerals in the soil more available for plant use, thereby increasing yields and raising protein and feed values, as well as reducing plant disease.

To get an independent evaluation of his new line, Gunnink sent Royal off to research trials in Arizona. The results verified his trials, yielding 34.89 tons of silage per acre when planted at 22,500 (innoculated) seeds per acre. The new silage corn variety tested at 10.5% crude protein and only 17.9% starch compared to 28.8% starch with other varieties and was valued at \$40.39 per ton, return-

Barn Cams Let You Monitor Remote Sites, Livestock On TV, Computer

Remote monitoring of livestock, pets, valuable crops, workers, and even baby sitters via the Internet is getting easier and more affordable all the time.

Prices for equipment have plummeted in recent months, so anyone who understands the basics of computers can now get live video of anything you want to monitor onto the Internet.

To get started, you can go online and find all kinds of systems. Or you can call Bill and Susan Thiel, Oconomowoc, Wisconsin. They operate Saddlebrook BarnCams, LLC, which assembles and sells turnkey Internet monitoring systems.

The Thiels run a network of "BarnCams" that transmit live video of their 15 Appaloosa horses to the Internet, where anyone who wants to can watch what's happening in their barn (www.appaloosa.com). Thousands of Web surfers have "stopped by" to check out the horses, especially during foaling season.

Bill put their first BarnCam together five years ago because Susan was attending a meeting in Georgia at a time when three of the couple's registered mares were due to foal. She didn't want to miss the births. He put an old video camera in the foaling stall, ran a cable from the camera in the barn to the computer in their house and sent the images to a Website. Though she was nearly a thousand miles away, Susan could log onto the Website and watch.

The Saddlebrook BarnCams now offers cameras no larger than a quarter and wireless 2.4 Ghz transmitters that can send signals right through floors and walls. They offer an extra high power transmitter that can send clear signals to your TV, VCR or computer up to a mile away. Systems can be purchased for \$250 and up. They're selling to

ing more than \$1,400 per acre.

"It's exciting to see the results come back so very good," says Gunnink. "We are starting to see that it has terrific potential."

For the near term, Gunnink plans to sell Royal direct (\$48 per bag - limited quantities available), along with an open-pollinated si-



BarnCam comes with a camera no larger than a quarter and wireless transmitters that can send signals right through floors and walls.



Live video can also be transmitted to a computer Website.

livestock producers, veterinarians, kennels, and even homeowners who want to check on things in the barn or at home when they can't be there physically.

Contact: FARM SHOW Followup, Saddlebrook BarnCams LLC, N76W36096 Saddlebrook Lane, Oconomowoc, Wis. 53066 (ph 920 474-7776; E-mail: sales@BarnCams.com; Website: www.barncams.com).

lage variety. He also raises and sells grass seed selected for intensive grazing and distributes grazing grass seed marketed by a Dutch company.

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