

## Pull-Type Bedder Blows Sand, Sawdust Into Stalls

Bedding cows has never been easier than with this new pull-type bedding machine that blows sand or sawdust into free stalls as you pull it past them.

Mensch Manufacturing's pto-powered bedder consist of a 7-ft. box that mounts on a 12-ft. long trailer chassis. It'll haul 7 to 8 cu. yds. heaped.

The spreader box features a 12-in. wide conveyor chain belt that runs lengthwise down the center. It delivers sand to a discharge belt, which then blows it out 3 to 15 ft. in either direction. Track used for the discharge is snowmobile track.

It has a 50-in. inside wheelbase for easy maneuvering in cramped quarters.

One Wisconsin dairyman who tested the system cut his bedding time to just 30 minutes, down from six hours with the front end loader he used before, the company says.

Available in two models - M 3100 and M 3150 - with rear and front discharge, respectively.

Sells for \$19,995.

Optional agitating shaft for lighter materials, such as sawdust, is available for \$1,500.



Machine discharges sand 3 to 15 ft. in either direction.

The company also manufactures the "Side Shooter" bucket for front-end loaders that handles both sand and sawdust for bedding. Three sizes available - 5, 6 and 7-ft. buckets.

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## Machine Separates Bedding Sand From Manure

A new machine built by a manufacturer of mining equipment was recently introduced to dairy farmers for separating sand from manure.

McLanahan Corporation's newly patented Sand-Manure Separator separates bedding sand from manure, allowing sand from freestall barns to be reused as bedding and manure to be handled without wear and tear on equipment.

Manure from the barn is scraped into a reception pit and then augered into the separator, which separates 80 to 90 percent of the sand from the manure depending on sand texture. In the hopper, sand-laden manure is mixed with air and recycled water. The air suspends the manure solids, and the solids/water mixture gravity flows out of the machine into storage. Sand, meantime, settles

out and is carried up a screw conveyor and piled on the ground. Separated from manure, the sand is around 15 percent moisture, notes McLanahan's Andrew Wedel.

Eight of the company's separators are now installed in new dairy facilities in Michigan, Pennsylvania and Wisconsin.

Sand separators come in two sizes - 22-in. dia., 22-ft. long auger or 10-in. dia., 10-ft. long auger. They process the manure from 700 and 150 cows in 10 hours, respectively.

Sells for \$28,600 and \$17,000, respectively.

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## Diet Change Reduces Volume Of Manure

Feeding dairy cows a limited corn-based diet could reduce the amount of manure, they produce, according to research by an Ohio State University animal scientist.

Instead of allowing cows to eat as much forage as they want, Steve Loerch is feeding cows a limited, high energy corn diet that ensures cows get needed calories and nutrition while eating less.

"We're trying to provide cows with the same amount of nutrients per day by packing it into a smaller package," Loerch says.

Corn is almost twice as digestible as forage, and recently Loerch began looking at the correlation between the corn diet and manure production. Less undigested feed means less manure, he says.

For example, in one study a group of Holstein cows were fed a high-forage diet - 70 percent forage and 30 percent corn - while another group received a high corn diet - 13 percent forage and 87 percent corn. Both diets provided an equal amount of calories and nutrients but the cows fed the high corn diet ate 30 percent fewer pounds of feed and ex-

creted nearly 40 percent less manure.

One drawback for farmers who depend on manure to fertilize fields is that the corn diet cows excreted almost 20 percent less nitrogen and more than 30 percent less phosphorus.

Interestingly, the study showed the corn diet to be cheaper. The forage-based diet cost \$1.76 per cow per day, while the corn-based diet cost only \$1.38. Feed costs were based on \$2.80 per bushel corn and \$80 per ton hay.

Loerch says the diet will work with beef cows, too.

"Beef producers can save up to 70 cents per day depending on the price of hay," he says. "Beef farmers and nutritionists eight years ago said you couldn't limit-feed beef cows, but we've done it for seven years and it's saved money and reduced manure."

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Combine axle hubs mount at either end of the pipe to act as bearings, eliminating the need for a center shaft.

## 12-Ft. Land Roller Has No Center Shaft

"I used a length of 38-in. dia. steel pipe, the hitch off a 24-ft. Morris rod weeder, and an old combine axle to build my 12-ft. land roller. The total cost was only about \$1,300," says Enoch Aarrestad, Debden, Sask.

Unlike most conventional rollers, this one has no shaft through the center of the pipe. Instead, the combine axle was split in half and mounted at either end of the pipe to act as "bearings".

"It works great for rolling peas and seeding alfalfa fields, pushing down stones, and smoothing out fields. It also does a good job leveling pocket gopher mounds when the ground is soft in the early spring. I saved a lot of money because commercial rollers of comparable size sell for about \$3,000 and they're not built as well as mine."

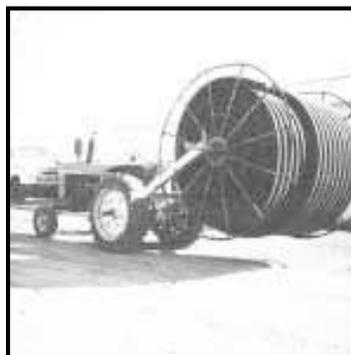
The roller consists of a 12-ft. long, 1/2-in. thick piece of water main pipe that had never been used. He bought a 4 by 8-ft., 3/8-in. thick sheet of steel and cut out circles to make the end plates. He removed the axle hubs from an old IH 150 combine and drilled holes in both end plates so that he could bolt on the

hubs. He welded the bolts in the end plates to waterproof them. Next he used lengths of 3-in. wide, 3/8-in. thick flat bar to make six spokes that welded to the inside of each end plate. He then welded the end plates and hubs to the main pipe. He bolted the wheel rims back onto the hubs, built a steel frame, and welded it to the rims and then joined them together. The hitch off a 24-ft. Morris rod weeder was then welded to the frame.

He mounted 2-in. dia. bungs on each end plate to add or drain water. Each end plate is 2 to 3 in. from the edge of the pipe.

"If I did it again I'd place the end plates out farther to make it easier to open and close the bungs," says Aarrestad. "Both end plates were welded with two full passes, both for strength and to be watertight as we almost always have it at least half full of water."

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Stringer handles 5 and 6-in. dia. tile wound onto 10-ft. dia. reels.



Prestin removed the shanks from a 10-ft. long toolbar and welded on a pair of 10-ft. arms.

## "Poor Man's" 3-Pt. Tile Stringer

"It's a handy way to handle big reels of tile and saved me a lot of money," says Tim Prestin, Wenona, Ill., who built his own 3-pt. tile stringer out of an old 3-pt. anhydrous applicator toolbar.

Prestin mounts the tile stringer on his Deere 4010 tractor. He buys 5- or 6-in. dia. plastic tile wound onto 10-ft. dia. reels.

To build the tile stringer he removed the shanks from the 10-ft. long toolbar and welded a pair of 10-ft. arms, made from rectangular steel tubing, onto both ends of the toolbar. A flat metal bracket with a hook at the bottom was then welded onto the end of each arm. To pick up a reel he shoves a 2-in. dia. steel pipe through the reel, then backs the tile stringer up to it and raises the arms until they hook onto the pipe. To lay the tile he first uses a backhoe to make a trench in

the ground. He drops one end of the tile in the trench and throws dirt on top to anchor it. Then he drives forward alongside the trench to lay out the tile.

"It's a simple, poor man's way to string tile," says Prestin, who built the unit two years ago. "I put in about 8,000 ft. of tile each year with it. I bought the steel tubing for the arms at a surplus store and spent a total of only about \$50 to build it. Commercial pull-type tile stringing trailers sell for \$2,500 to \$4,500.

"For big jobs I lay the tile on top of the ground and then feed it into a tiling machine. It also works great when used with a late-model backhoe and clamp-on laser."

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