

Mega Composter Saves Dairies Big Money

Big dairies are saving money by turning manure into bedding, and as a result, reducing manure handling and storage. BeddingMaster composting machines from DariTech, Inc. do the job up to 50 percent faster than similar competitive systems.

"We've delivered 6 of them to Oregon dairies so far and more elsewhere," says Andy Ward, Ore. manager, DariTech, Inc.

The 6-ft. diameter composters come in 16, 32 and 40-ft. lengths. A heavy-duty electric motor keeps the drum rotating 24/7.

The manure first goes through separators to remove most of the liquid. The solids are passed into the composter drum that turns constantly, tumbling the manure, keeping it aerated, and feeding decomposing bacteria.

"We like to feed the drum for 20 to 30 min. out of every hour," explains Ward. "When you start with an empty drum, it takes 24 to 30 hours to fill it and then run it until product comes out the discharge end."

Ward explains that ideally the solids should turn in the drum for about two days. He has one dairy where they run material through in 28 to 30 hours, which is actually enough time to produce pathogen-free bedding with no odor.

"The exhaust fan draws cool air through the discharge opening, maintaining oxygen flow, bacterial levels and pasteurization," says Ward.

The ideal ambient temperature for optimum composting is 55 to 60 degrees. However, the composter can handle lower temperatures.

"We had one that was installed last summer, and winter temperatures got down in the 20's and 30's," says Ward. "They never had a problem all winter. The internal temperature cooled down some, but the machine still maintained the target level of 140 to 150 degrees."

The units are very low maintenance, requiring about an hour a day once set up for automatic filling and discharge. Temperature levels need to be checked, as do the separator amperage levels. Ward explains that amp levels indicate the dryness of material feeding into the drum.

One part of the daily routine includes greasing the wheels on which the drum turns. The mid-size steel drum weighs 28,000 lbs. empty.

"We went with a steel drum on steel idler wheels to handle the weight," he says. "To



BeddingMaster composting machine turns manure into bedding. The 6-ft. dia. composters come in 16, 32 and 40-ft. lengths.

keep the steel from flaking, a little grease needs to be added each day."

Ward says the machines are very simple in their design. Linear boards on the inside of the drum provide temperature-maintaining insulation. Spaces between the boards host bacteria. The boards also protect the interior of the drum from the abrasive affects of the revolving solids.

Suggested herd size for the three models is

600 head for the 16-ft. unit, up to 1200 head for the 32-ft. unit, and up to 3,000 head or more for the 40-ft. unit. Prices vary depending on how manure is currently handled.

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He Raises Rabbits In A Big Way

Jason Thuss spends a lot of time out in his rabbit barn. So, he's glad he took time to research equipment and barn set-up. It resulted in an efficient operation that's comfortable for him and his rabbits.

After visiting many other rabbit producers, the Kerwood, Ont., farmer decided to purchase Italian-made cages by Clerici that are sold through an Ontario distributor.

"I am big on buying local, but in this case the Europeans had it figured out," Thuss says. "These cages are modular so you can use them as dry doe, nursing or fryer cages. The nursing cage has a nest box that slides in and a 'bullseye' to lock a doe out when you want to deal with her kindle (baby rabbits)."

The cages are stacked three high, and metal sheets under each cage direct the feces to a central manure alley. An automated system scrapes and augers the manure to a stack outside the barn.

Feeders and waterers (purchased at a local farm supply store) are also automated so Thuss can spend more time checking out his herd's health, tending to kindle, and record keeping. He maintains four bloodlines, with 300 does (California breed), 30 bucks (New Zealand White breed) and ships 225 5-lb. rabbits/week. Does average 8 to 9 kindle/litter and 8 litters/year. He culls aggressively — the oldest doe is 320 days old.

Thuss admits he wanted to raise poultry, but the high setup cost made him consider rabbits. He started with 70 rabbits and decided to expand when he was laid off his job last year.

"I love the rabbits. I love my barn. I love how it's clean. If you have a nice clean barn it really is enjoyable to spend time there," he says.

Thuss spent about \$110,000 for cages, concrete, ventilation and manure handling. He keeps the barn at 57 degrees in the winter and uses fans and an automated ventilation system in the summer. His veterinarian and nutritionist set up the feed pellet blend with antibiotics to keep his herd healthy.

"You have to keep the proper medication or you can lose half the herd. It's happened to me," Thuss says. Keeping everything sterile is important.

So is marketing. Thuss converted a mini-school bus into a rabbit-hauler and weekly he takes a load of live rabbits 60 miles to a butcher/processor. The meat is sold in Ontario stores. The market tends to be better during the winter, as high as \$1.50/lb. at Christmas and Easter. Thuss says he makes about \$1/rabbit.

"Make sure the market is going to be viable," he suggests to people thinking about raising rabbits. Producers must also have a



Jason Thuss raises rabbits in modular cages stacked 3 high. Metal sheets under each cage direct feces to a central manure alley.

processing plant and a place to sell the rabbits nearby.

Thuss is a director of Ontario Rabbit, an education/grower organization and has become an enthusiastic promoter of rabbit with its all white meat, nearly zero fat content, and other beneficial nutrients.

"It tastes great. It's better than chicken," Thuss says. "There are lots of recipes out there. I like to eat rabbit deep fried."

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An automated system scrapes and augers manure to a stack outside the barn.

Home-Built "Tracks" Boost Mower Traction

"I installed home-built tracks on my zero turn riding mower, and it resulted in vastly improved traction. I can mow through places I never could before," says Roger Foster, Tower Hill, Ill., who attached channel iron tracks to the drive tires on his Country Clipper zero turn riding mower.

"I use the tracks mostly in early spring when the ground is thawing out and is so soft and slick that I can hardly walk on it. Without tracks I could easily get stuck in such conditions. But now I can drive right on through, without making ruts," says Foster. "I remove the tracks as soon as the lawn dries out."

Each track consists of a series of 7-in. long, 1 1/2 by 3/4-in. channel iron bars that are spaced 4 1/2 in. apart, with 2 full links

between each bar. The tracks are welded to lengths of double no. 60 roller chain.

Foster did careful measuring so he can slip each roller chain onto the tire when the tire is deflated. He laid the roller chain on a work bench and tach welded the channel iron bars onto it at 2 different places.

"The tracks don't cause any damage to my lawn, even on turns," says Foster. "I suppose if I turned too fast it might tear up the grass but normally it doesn't hurt anything. I didn't want the tracks to cover the full 12-in. width of the tires because I was afraid it might scuff up the yard."

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To improve traction on his zero turn riding mower, Roger Foster attached home-built channel iron tracks to the drive tires.