BioReactor Composting System Dairy Manure

100 20

KUTZ

Swiss Valley

Kutz Dairy LLC

N3612

SYSTEMS XACT Systems Inc. 340 Sidney St. Trenton, Ontario, Canada 613-394-1922 800-920-0630 Serial # 2011-6013 Made In Canada

Kutz Dairy LLC

Alan Kutz said that he and his men were able

to install the BioReactor in just 4 hours.





The Kutz Dairy Farm in Wisconsin chose the XACT BioReactor to compost their dewatered dairy manure in order to tap into the additional revenue that good compost can provide to their farming operation. The compost they are producing is consistently high quality and volume, which means that these dairymen are able to establish markets and provide good product on a reliable basis. It is not hard to understand with this kind of

smart thinking how the Kutz Farm has earned a reputation for success. Now, not only do they make money from the milk, but also from the manure too.

Because of the clever design of the BioReactor, the Kutz team was able to do the installation themselves in just 4 hours! The BioReactor arrived on the farm on 2 trucks. After setting the frame and drives on the prepared concrete surface, a crane lifted the drum and set it in place. Popped on the discharge and infeed ends, and they were good to go.



The BioReactor has 2" of insulation to help contain and maintain the heat levels of the composting process. Because of this feature, the dairy situated the BioReactor outside and saved the cost of a building by doing so.

Bear in mind, Wisconsin has very cold winters, but the BioReactor will perform and compost



successfully in spite of the frigid temperatures. The dewatering of the manure takes place in the building adjacent to the composter and the discharged compost is conveyed in to a storage building at the end of the BioReactor. This allows the operators to work in the relative comfort of building while the "heavy lifting" is done by the BioReactor.



Their BioReactor is 10' diameter x 60' long; it weighs 83,000 lbs; has a capacity of 120 cubic yards (based on 70% of total) and will hold 150,000 lbs. of dewatered manure. The composting protocol that the dairymen opted for is a 4-day retention period processing about 30 cubic yards per day. Given the time and temperatures of this composting protocol, the compost they are producing, upon discharge, will be pathogen-free, weed seed-free, insect larvae-free and odorless. When it comes to marketing their compost, this high standard of quality and consistent throughput will be vital to their success.

The 150,000 lbs. of manure produced will be turned 240 TIMES PER DAY, and is driven by 4 Friction Drives--each one being only 3 hp. The friction drives provide smooth, quiet and reliable operation. Other great engineering features of the BioReactor which wise dairymen, like the Kutz owners, appreciate are:





- Carbon Steel Walls (up to 5/8" thick)
- Solid Steel Trunnion Wheels
- Fixed Ends with Spring Connectors
- Heavy Duty Mounting Frames
- Wear Bars for Durability
- Interior Liner Rings
- Negative Ventilation System for Process and Odor Control
- Foam Insulation for 24/7/365 Temperature Control
- Automatic Discharge Door











These are the trunnion wheels upon which the BioReactor will ride. Each wheel is machined from one piece of solid carbon steel and weighs 800 lbs.



Ron, Pam, Aaron, and Alan Kutz milk 1600 jersey cows and have plans to expand to 3,000.



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