

Volume 8
June 27, 2006

This Month's Topics

- * Farmer to Farmer Tour
- * Frequently Asked Questions
- * U of MN Requesting Information from CDB Producers
- * Another Grant to Research Compost Dairy Barns

Ideas? Suggestions?

Welcome to the Compost Dairy Barn Newsletter. This newsletter is intended to facilitate networking among people interested in compost dairy barns. We encourage your input. If you would like to share some of your experiences or have ideas for topics in future newsletters, contact Mindy Spiehs, Wayne Schoper, or Vince Crary.



Stocking rate may influence somatic cell counts, bedding needs, and incidence of teat injuries

Farmer to Farmer Tour to Be Held in Carver County, Minnesota

The University of Minnesota Carver County Extension Service will be hosting a free Farmer to Farmer Tour focused on compost dairy barns on Tuesday, July 18, 2006.

A two-stop tour has been organized. The tour will start at 11:00 a.m. at Edgewater Meadows located near Mayer, MN. A free lunch will be served at noon, sponsored by the Carver County Dairy Core Group. At 12:45 p.m. Wayne Schoper—Extension Educator from Brown & Nicollet Counties, will talk about his experience with compost barns over the past five years. Wayne will share his observations from four barns in his area that been in operation for 2 or more years. The second stop of the tour will be at Hoese Dairy, Inc near Wattertown, MN. The tour will conclude at 2:30 p.m.

Carver County Extension Educator Laura Kieser provided the following information about the two compost dairy barn facilities

on the tour:

Edgewater Meadows. Owners Tom and Jody Luebke built their compost dairy barn in August 2005. Their original herd of 40 Holsteins, Ayrshires and Guernseys moved into the facility in September 2005. In addition, approximately 40 Holsteins were purchased at that time. The compost portion of the barn measures 40 x 150 ft. with an 11 ft. alley on one side. The barn features drive-by feeding using J-bunks. A TMR is fed once each day. Two Big Ass® fans, with 10 ft blades were installed in the new portion of the barn. Eight ceiling fans are used to ventilate the older part of the barn. The existing stall barn was converted into a double 4 step-up parlor and holding area. The Luebkes chose to expand to capture increased efficiency within the operation and to ease labor needs and increase family time.

Hoese Dairy Inc. Scott and Eric Hoese built their compost dairy

barn in November 2005. Their original herd of 65 Holsteins moved into the new facility in December 2005. In March 2006, approximately 30 cows were purchased and moved into the compost barn. The bedded pack area measures 50 x 200 ft. A 14 ft feed alley is on one side of the pack. There is room for 120 cows in the barn. They utilize three Big Ass® fans with 12 ft blades in the barn. Along with the compost barn, they built a double 4 step-up parlor. The Hoeses chose to expand to allow Eric to join the business and they recently became a S-corporation. Their decision to build a compost dairy barn was based on improved cow comfort and increased production.

There is no cost to attend this tour, but you need to register by Friday, July 14, 2006. Contact Laura Kieser at the Carver County Extension Office to register for this event or for more information. (952) 466-5300

Frequently Asked Questions: Stocking rate, Teat injury

Question: Have you seen herds that stock at a higher rate than the recommended 80 ft²/cow?

Answer: The stocking rate of 80 ft²/cow appears to be about right. Some have tried to crowd the cows more than this with the result of having higher SCC and dirtier cows. However, there have been some herds that have been

successful at higher cow densities BUT they also have increased the intensity of the bedding management. Density can be increased if smaller breeds such as Jerseys are used. Producers are telling us that Jerseys need approximately 65 ft²/cow.

Question: Have you noticed any problems with teat injuries or

stepped on teats with cows in compost dairy barns?

Answer: I have not heard any reports of increased injury, but suspect that injury could increase with higher density. .

Answers provided by: Jeff Reineau, University of Minnesota Dept of Animal Science

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U of MN Requesting Information from Compost Dairy Barn Producers

The University of Minnesota Compost Dairy Barn Research Team is requesting information from producers. We want to know how many semi-loads of sawdust you add to your compost dairy barn during the year and how many cows you have on the composting pack.

As part of the North Central Region Sustainable Agriculture Research Education (NCR—SARE) grant proposal that was recently funded, U of MN researchers will be conducting a survey to gather information from producers currently using compost dairy barns. Dr. Marcia Endres has already collected some basic information from producers. This information has been critical to our understanding of these facilities. However, there are still

gaps in the information.

One item of interest is the nutrient composition of the compost in the barn. We have speculated that the higher the cow density, the higher the nutrient density will be in the compost; more cows will produce more manure. However, we also know that higher stocking densities result in increased bedding needs. Therefore, we are planning to collect information about the amount of sawdust that has been added to the compost dairy barn in the past year and the number of cows on the pack. This information will help us calculate the nutrient contributions of sawdust and cow manure to the compost pack during the year. These calculations will be used to try to correlate stocking rate and nutri-

ent density of the compost in the barn.

What does this mean for the average farmer? If a producer knows the stocking rate of the compost dairy barn during the year, we will be able to estimate the nutrient composition of the compost being removed from the barn. This will assist the producer with land application and manure management plans. These estimates will serve as guidelines but should not replace regular testing of the compost/manure in the barn before land application.

Help us help you...start keeping records on the stocking rate of your barn and the amount of sawdust you add to your compost dairy barn

Another Grant to Research Compost Dairy Barns

Researchers from the University of Minnesota learned recently that they received funding for their research grant *Estimates of Nitrogen Availability from a New Manure Source*. The ten member team includes faculty from the Water Resource Center, Department of Soil, Water, and Climate, and Extension Service. Eight producers will also participate in this study. Funding was provided by the Minnesota Agricultural Experiment Station Rapid Agricultural Response Fund.

The goal of this research project is to determine availability of

nitrogen in compost dairy barn manure on response of the following corn crop in order to provide recommendations to livestock producers on appropriate methods and rates of application.

Researchers will determine the appropriate sampling techniques for compost dairy barn manure and measure nitrogen release from compost dairy barn manure in the laboratory. They will also measure corn crop grain yield response to incorporated and non-incorporated compost dairy barn manure, supplemented with a range of fertilizer nitrogen. Finally, they will correlate labora-

tory results with corn crop grain yield response to use this as a predictor of nitrogen availability to determine correct application rates of compost dairy barn manure. The project will start in the Fall of 2006.

The Compost Dairy Barn Research Team is excited to get started on this and other research projects that have been funded in order to better educate producers about this new dairy housing facility. Watch for results of this research project in upcoming newsletters.

Editor's Note: The *Producer Spotlight* feature will return in the July edition of the Compost Dairy Barn Newsletter.