



NEW Virtual Tours

Three new virtual tours have been added to the Dairyland Initiative website; two nursing calf facilities and one breeding age and bred heifer barn.

The first of the nursing calf barns features the “all-in, all-out” style calf barns at Double

S Dairy. These single-row barns supplement natural ventilation with positive pressure tubes.

Larson Acres also utilizes an “all-in, all-out” management system to help minimize risk of disease transmission. Barns are filled over a short period of about two weeks and emptied one at a time as calves are born and weaned. One barn is completely unoccupied at all times for the removal of bedding, cleaning pen panels, and washing the barn wall with time to dry out.

Split Rail Acres’ new, naturally ventilated freestall barn for breeding age and bred heifers highlights a 3-row pen with sand-bedded stalls built specifically for heifers 800-1200 lbs (360-545 kg).

These virtual tours are just some examples of how farms have used the Dairyland Initiative recommendations to improve animal well-being and are great resources for when looking into building or remodeling existing facilities.

What’s New on the Website?

- **Why is Sand so Great for Cows?** Check out the article written by Dr. Nigel Cook for *Progressive Dairyman*.
- Updated **directory of trained consultants** for supplemental positive pressure ventilation system design for calf barns (306 trainees) and cooling in holding areas (32 trainees).
- **Coming soon:** Example of an “ideal” barn layout for a 700-cow dairy from ideas brainstormed at our recent workshop on Planning New and Remodeling Existing Dairy Cattle Housing.

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By the Numbers...

2,478 Active Users

- 656 WI Dairy Producers
 - 264 Non-WI Dairy Producers
 - 150 Construction Professionals
 - 406 Consultants & Supporters
 - 577 Veterinarians
 - 103 WI Extension, Education & Students
 - 109 Non-WI Extension & Education Personnel
 - 53 Lending Professionals
- 20,615 Total Daily Log-ins**

We want to hear from you! Please share your success stories with us or comments about the website by [email](#), [Facebook](#), or [Twitter](#).





February 100-lb Dairyland Initiative Tours™ and Workshops

The weather warmed up just enough for Tour Day where over 40 people visited Larson Acres, Majestic View Dairy, and Mystic Valley Dairy who have reached exceptional levels of production through remodeling or building new facilities to maximize cow well-being, performance, and health. At Larson Acres' nursing calf barns, participants were given a fogger demonstration of how the positive pressure tubes supplement natural ventilation by directing fresh air four feet (1.2 m) from the floor to the calves without creating a draft. Majestic View Dairy featured converted mattress stalls to deep sand bedding and extended sidewalls for added lunge space. The final stop of the tour was at Mystic Valley Dairy where positive pressure tube systems and sprinklers are utilized to cool cows in the milking center holding area. Participants were able to speak with producers and hear their first-hand testimonials about the changes made on their farms.

Day 2 workshop attendees got an in-depth look at how to plan new and remodel existing dairy cattle housing with Dr. Nigel Cook who walked through the steps to create facilities that make cows happy, healthy, and productive. Concepts learned at the day's proceedings were that there is no one "perfect" barn layout, how to take into consideration the future needs of the herd, and to keep in mind how manure, feed, people, and cows must move through the facility when designing a barn.

Dr. Ken Nordlund talked about the importance of well ventilated calf barns and how to minimize respiratory disease in calves through management and building design on our third day of the workshops. Supplemental positive pressure tube ventilation systems are one option for improving ventilation in calf barns. Participants learned how to use our latest 6.0 version of the PPTV Spreadsheet Calculator to design tubes, bringing our total number of trained PPTV consultants to 306 people in 22 states and 13 countries. A list of the trainees and their contact information can be found on the website under the Professionals tab -> [Consultants](#).



Mark your Calendars for our Upcoming Workshops

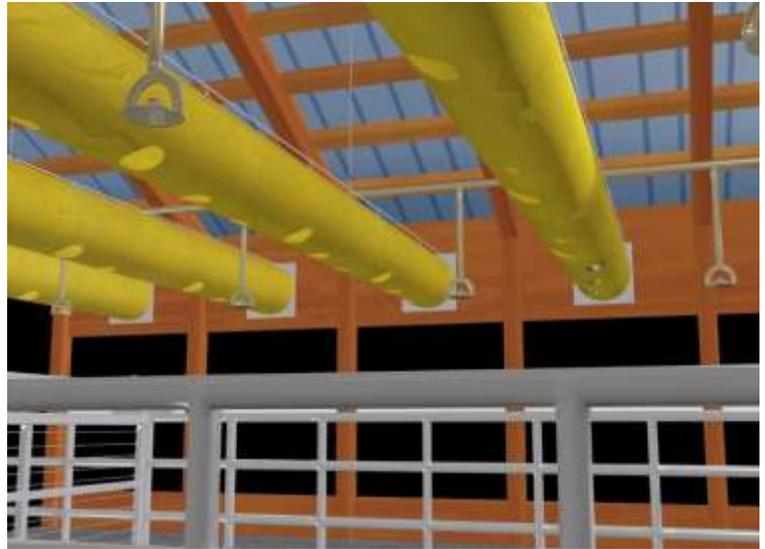
We will be hosting our next set of workshops November 6, 7, and 8 in Madison, WI. Watch your email and the website for an informational brochure coming soon.

The next calf barn PPTV program will be a preconvention seminar at the American Association of Bovine Practitioners' conference in Albuquerque, NM in September.

Holding Area Heat Abatement Using Positive Pressure Tubes

Modern holding areas are ventilated using natural ventilation to move fresh air into the holding area and recirculating fans to create air velocity on the backs of wetted cows. While these systems work well on many days in many facilities, too frequently the holding area is poorly ventilated due to building obstructions and lack of wind, and recirculating fans produce velocity with increasingly hot, very humid air from within the holding area.

A new approach to effectively cool cows in the holding area is through the use of positive pressure tubes which assure the delivery of fresh air moving at the desired speed of 300-400 ft/min (1.5-2 m/sec) to the level of the cows' backs and generate appropriate air velocity on every cow in the space. While our experience is relatively limited at this time, our observations indicate that the tube systems can deliver good conditions for cow cooling with reduced electrical power use and reduced noise within the milking center. Compared to current state-of-the-art holding areas that are fully equipped with fans, positive pressure tubes use roughly 40% less electricity.



Challenges for installing the tubes include the crowd gate being too high and the ceiling being too low to accommodate the size of tubes needed for the space. In general, crowd gates should be no higher than 10 ft (3.1 m) off of the ground when raised with at least 4 ft (1.2 m) of clearance between the gate and ceiling.

Dispersing sprinklers between the tubes is a very important component of cooling cows. When water is evaporated from the skin, it carries away body heat from the cow. Low humidity air moving at 300-400 ft/min (1.5-2 m/sec) maximizes evaporative cooling. Together, positive pressure tubes and a sprinkler system are an effective heat abatement method for holding areas.

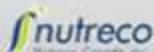


More information about holding area heat abatement techniques can be found on the Dairyland Initiative website -> [Blueprint Tab](#) -> [Adult Cow Housing Decision Tree](#) -> [#14 Heat Abatement](#).



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Thank You Sponsors!

The Dairyland Initiative is funded by sponsorships, login subscriptions, consultation fees, and money generated from programs. We have several sponsorship levels available, with recognition on the website, during our programs, and anywhere the Dairyland Initiative is presented. If you would like to discuss sponsorship options, please contact Dr. Becky Brotzman by email at rbrotzman@wisc.edu or by phone at (608)262-6800. We greatly appreciate the support of our sponsors!



Our staff of veterinarians is available for a variety of facility consultation services. More information can be found under the "[Services](#)" tab on the website. For calf barn and holding area positive pressure tube ventilation system designs, we highly recommend contacting one of our trained consultants using the locator maps and directories in on the "[Professionals-Consultants](#)" page of the Dairyland Initiative website.