Dairyland Initiative
UNIVERSITY OF WISCONSIN–MADISON

The Dairyland Initiative NEWS

Fall Workshops

The next set of Dairyland Initiative Workshops will be held November 12-14 in La Crosse, WI . Dr. Ken Nordlund will present on the deficits of common ventilation systems in calf barns, management of air quality and cold stress to minimize respiratory disease in calves through building design and management, and teach principles of positive pressure tube systems on Wednesday, Nov. 12. Thursday's workshop will focus on finding solutions for holding area cooling through the use of positive pressure tube systems to provide an effective, lower energy solution for heat abatement. Participants from the Nov. 12 and 13 workshops will be listed on the Dairyland Initiative website as trained consultants for positive pressure tube design for calf barns and/or holding areas. On Friday, Nov. 14, Dr. Cook will go through the steps needed to create facilities that make your cows happy, healthy, and productive, using partial budget calculators to show that the decision makes economic sense. Participants will collaborate with each other to design an "ideal barn" using the concepts learned from the day's presentations.

Full details and registration information can be found on **The Dairyland Initiative** website. Spaces are limited to 40 participants each day so be sure to **sign up** soon!

Issue 7, Summer 2014

In This Issue

What's New on the Website?

- **The Arguments for Social Stability in Transition Cows**: Check out Dr. Nigel Cook's article written for *Progressive Dairyman*.
- *Hoard's Dairyman* series on **transition cow housing**.
- **Coming Soon:** Virtual tour of a robotic milking facility for Guernseys and Holsteins.

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

By the Numbers…

2,638 Active Users
695 WI Dairy Producers
296 Non-WI Dairy Producers
589 Veterinarians
159 Construction Professionals
424 Consultants & Supporters
419 Extension, Education & Students
56 Lending Professionals
22,698 Total Daily Log-ins since Oct. 2010

Announcing Dr. Ken Nordlund's Retirement

After 25 years of service at the University of Wisconsin School of Veterinary Medicine, **Dr. Ken Nordlund** retired this past July. Dr. Nordlund came to the UW SVM as a founding member of the Food Animal Production Medicine section in 1989. His numerous contributions to the dairy industry include the Transition Cow Index, which uses dairy records to monitor fresh cow performance of herds, research linking freestall design and lameness in dairy herds and barn design to transition cow performance, and supplemental positive pressure tubes for improved ventilation of calf barns and in holding areas for heat abatement. In addition to his research and clinical services, Dr. Nordlund directly influenced veterinarians and the herds they serve through his teaching career, lecturing in the Food Animal Production Medicine course, coordinating and teaching in the Basic Skills in Dairy Production Medicine clinical rotation and the Dairy Herd Management Certificate Program, and speaking at numerous programs of the American Association of Bovine Practitioners and other organizations world-wide.

Together, he and Dr. Nigel Cook founded The Dairyland Initiative as an online resource for welfare-friendly dairy cattle housing recommendations.

The Dairyland Initiative staff would like to congratulate and thank Dr. Nordlund for his dedicated work toward improving the well-being of dairy cattle.

Letters of congratulations can be sent to:
School of Veterinary Medicine, C/o Dr. Ken Nordlund,
2015 Linden Drive, Madison, WI 53706

New Virtual Tours

Two new virtual tours featuring positive pressure tubes for heat abatement in holding areas and a naturally ventilated growing heifer barn are now available on the site.

Williams Brothers' growing heifer barn with protected waterers in the bedded pack.

The virtual tour of the **milking center holding area** highlights the combined use of positive pressure tubes and sprinklers to cool cows efficiently in the naturally ventilated area. These tubes deliver fresh air at a rate of ~50 air changes per hour with the air jets targeted to reach 300-400 ft/min (1.5-2 m/sec) at the level of the cows' back, in effect "showering" cows with fresh air at minimum heat abatement speed when combined with soaking from sprinklers.

Williams Brothers Farms built a **new barn for calves post-weaning through 10 months of age** for their 75-cow herd. This east-west oriented barn with 14 ft (4.3 m) high sidewalls, split curtains, and supplemental positive pressure tubes maximize the benefits of natural ventilation. "You can utilize the whole [sidewall for bringing fresh air] instead of having spots where there's no air," said Vic Williams in regards to deciding to pour a 2 ft (61 cm) instead of a 4 ft (122 cm) concrete knee wall.

Footbath Design

Footbath regimes are an integral component of infectious hoof disease control in freestall dairy systems. Topical application of antibacterials such as copper sulfate, formalin, zinc compounds and other disinfectants have been shown to aid the control of foot rot and digital dermatitis (heel warts), and the footbath is a simple mechanism for treating large numbers of cattle quickly and efficiently.

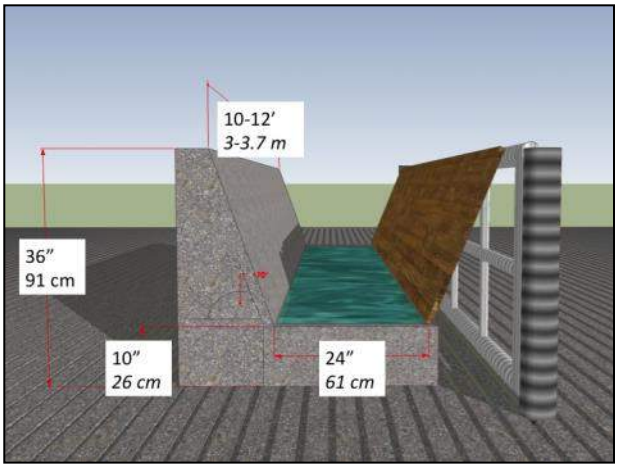
To maximize the number of foot immersions that occur as the cow walks through the bath, the Wisconsin Blueprint recommends that footbaths be ***10-12 feet (3-3.7 m) long***, at least ***24 inches (61 cm) wide*** with a ***step-in height of 10 inches (26 cm)***. Sidewalls should be sloped from a height of 3 feet (0.9 m) above the bath floor to the upper edge of the bath, and the sides enclosed to create a tunnel. This design will promote cow flow and reduce defecation. Since the bath is a long tunnel, we advise creating a hinged drop panel on one side of the bath so that a cow can be rescued, if necessary.

For help determining the correct concentration of chemicals, please consult our **Footbath Dose Calculator** and talk with your veterinarian before beginning any treatment protocol.

More information about footbath design and access to the Footbath Dose Calculator can be found on the Dairyland Initiative website -> Blueprint Tab -> Adult Cow Housing Decision Tree -> **#25 Footbath Design**.

Key Points

- No wash baths!
- Length: 10-12 ft (3-3.7 m)
- Width: 24 inches (61 cm) or more
- Step-in height: 10 inches (26 cm)
- Sidewalls: Sloped 3 ft (0.9 m) from the bath floor to the upper edge of the bath



Footbaths are recommended to be 10-12 ft (3-3.7 m) long to maximize the number of foot immersions.

This footbath is located at the end of a head-to-head freestall in a dry cow barn for use prior to calving.

A good location for a footbath in a robotic milking facility is at the exit of the robot. This particular footbath is situated between the central crossover alleys and the robots, and fitted with one-directional gates to prevent cows from entering backwards into the robot area.

Dean Foods Foundation Continues Support of The Dairyland Initiative

Thanks to another generous grant from the **Dean Foods Foundation**, a Platinum Sponsor of The Dairyland Initiative, dairy producers in the United States will continue to have free access to the site.

"The Dean Foods Foundation is proud to support The Dairyland Initiative because it underscores our commitment to animal health and welfare," says Jamaison Schuler, president of the Dean Foods Foundation. "More specifically, they have made tremendous progress by expanding their program to reach more farmers, hosting workshops, and sharing best practices on cow comfort throughout the dairy industry."

Save Cows Joins as Gold Sponsor

We are pleased to announce our latest partnership with **Save Cows Symposium** as a Gold Sponsor of The Dairyland Initiative. The **Save Cows Symposium** develops innovative practices and trains skilled hoof trimmers to improve hoof health through an in-depth understanding of lameness' causes and effects.

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 opportunities, 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!

Survey Results

The Dairyland Initiative is turning four years old this year so we asked our site users to fill out a short survey evaluating the website and its services. Over 75% of the responders stated that The Dairyland Initiative program overall is very or extremely useful and beneficial, and "a great resource for barn planning."

In order to better meet the needs of our users, we plan on adding printable handout pages for the Wisconsin Blueprint pages and expand our spreadsheet tools. If you would like to add your comments to the survey, please click **here**.

Questions or Comments? Contact:

Food Animal Production Medicine Section
School of Veterinary Medicine, UW-Madison
2015 Linden Drive, Madison, WI 53706
Ph: (608) 262-6800 Fax: (608) 262-8595

Dr. Rebecca Brotzman, Associate Outreach Specialist
rbrotzman@wisc.edu

Courtney Halbach, Associate Instructional Specialist
chalbach@wisc.edu