

Guidelines Address Ventilation Systems For Dairy Tie Stall Barns

ITHACA, N.Y. — Inside a dairy tie stall barn, sufficient and continuous air exchange is necessary to replace warm, moist, or stale air with fresh outside air. These two publications can help dairy producers and their advisers plan effective ventilation systems: *Natural Ventilation for Dairy Tie Stall Barns*, NRAES-119, and *Tunnel Ventilation for Dairy Tie Stall Barns*, NRAES-120 (originally published October 1998). Both are companion guidelines to *Planning Dairy Stall Barns*, NRAES-37.

Natural Ventilation for Dairy Tie Stall Barns, NRAES-119, is a guideline to systems using a combination of sidewall openings and ventilation chimneys, stacks, or intermittent ridge openings to allow maximum con-

trol of air quality and distribution without mechanical fans. In a naturally ventilated tie stall barn, properly sized, located, and adjusted openings use the forces of wind and the difference between inside and outside temperature to provide the necessary air exchange and distribution.

This seven-page publication outlines fundamental requirements for natural ventilation systems, covering control and operation of openings, insulation, moisture control, sidewall closures, and ridge and stack openings. Four illustrations are included.

Cows that are too hot quickly drop in milk production. Tunnel ventilation is a summer ventilation system that provides the high air exchange rates and high-

speed airflow over cows that are necessary to help remove body heat during hot weather. Tunnel ventilation components include large exhaust fans along one end wall of the barn and large openings along the other end.

Tunnel Ventilation for Dairy Tie Stall Barns, NRAES-120, describes tunnel ventilation systems that can easily be installed in simple, unobstructed rectangular barn layouts, and that with additional planning and adjustment can also be installed in barns with obstructions or unusual shapes. The 15-page publi-

cation discusses designs that are best suited for two-row tie stall barns accommodating more than 40 cows.

It covers the following essential steps in developing a tunnel ventilation system: determining required fan capacity, determining required inlet size, locating fans and inlets, selecting fans, and installing fans and controls.

Alternative inlet and fan locations are discussed as well. This guideline also addresses key considerations for planning and operating a tunnel ventilation system, including preparing the

tunnel ventilation system for winter, when an alternative system should be used. It includes 17 illustrations, a table of fan and inlet requirements for typical tie stall barns, and sample calculations.

Natural Ventilation for Dairy Tie Stall Barns, NRAES-119, is available for \$3 per copy (plus shipping and handling); and *Tunnel Ventilation for Dairy Tie Stall Barns*, NRAES-120, is available for \$4 per copy (plus shipping and handling) from NRAES. Visit the Web site at www.nraes.org.

NAICC Welcomes New Member

COLLIERVILLE, Tenn. — Scott W. Welsh of Brubaker Consulting Group, Ephrata, has been approved for voting membership in the National Alliance of Independent Crop Consultants (NAICC).

Applicants must meet rigorous requirements of education (minimum bachelor's degree) and experience (four years), and agree to abide by the NAICC Code of Ethics.

The NAICC was formed in 1978 as a professional organization for independent crop consultants and contract researchers. Since that time, NAICC has

grown to represent more than 500 consultants, contract researchers, and affiliated professionals nationwide, and membership continues to show dramatic increases. There are 11 NAICC members in Pennsylvania.

NAICC provides an organization to unify members who share concerns, problems, experiences, and knowledge related to agricultural crop production.

For more information about membership, contact NAICC, 1055 Petersburg Cove, Collierville, TN 38017, (901) 861-0511, fax (901) 861-0512.

ITHACA, N.Y. — When considering a new or improved dairy manure management system, it is important to predict the costs, risks, savings, and operating changes that may occur.

Because there are many options, careful and objective planning is a key to success. *Guideline for Dairy Manure Management from Barn to Storage*, NRAES-108 (originally published July 1998), concisely reviews information essential to the planning process for dairy farmers and their advisers.

The 36-page guideline covers the following topics: planning the development or improve-

ment of a manure handling system, getting technical information and assistance, and meeting regulations; manure characteristics and production; alternatives for manure management; options for transferring manure from barn to storage; and manure storage types and storage management. Fourteen illustrations and 14 tables are included.

Leadership for the development of *Guideline for Dairy Manure Management from Barn to Storage*, NRAES-108, was provided by Stanley A. Weeks, subcommittee chair of the Farm Buildings and Equipment Task Force of The Dairy Practices Council. Extension specialists, university members, industry representatives, and regulatory and milk-plant field personnel also provided their assistance and expertise.

Guideline for Dairy Manure Management from Barn to Storage is a joint undertaking by the Northeast Regional Agricultural Engineering Service (NRAES) and The Dairy Practices Council (DPC). DPC is a nonprofit organization of educa-

tion, industry, and regulatory personnel concerned with milk quality, sanitation, and regulatory uniformity.

This publication is one of 61 approved guidelines directed toward proper and improved sanitation practices in the production/processing of milk and the manufacture of dairy products. DPC approval indicates review by milk inspection agencies of DPC member states and the U.S. Food and Drug Administration.

Guideline for Dairy Manure Management from Barn to Storage, NRAES-108, is available for \$8 per copy (plus shipping and handling) from NRAES, Cooperative Extension, 152 Riley-Robb Hall, Ithaca, New York, 14853-5701. Shipping and handling is \$3.75 for a single copy within the continental United States.

For more information or a free publication catalog, contact NRAES by phone at (607) 255-7654, by fax at (607) 254-8770, or by e-mail at nraes@cornell. Visit the Web site at www.nraes.org.

Guideline For Dairy Manure Management From Barn To Storage



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