

# Penn State Book Offers Range Of Dairy Housing Options

ITHACA, N.Y. — Good dairy housing provides animals with a clean, dry, and comfortable area for resting, eating, drinking, and exercising. In addition, it is cost-effective to build and maintain, provides safe and efficient working conditions for caretakers, and protects the environment. Penn State Dairy Housing Plans, NRAES-85, offers twenty-nine plans developed by faculty and staff of the Department of Agricultural and Biological Engineering at Penn State and Penn State Cooperative Extension. The plans provide information that can help design a more successful freestall barn, heifer barn, or dry cow, and maternity housing facility.

A revision of Penn State Freestall and Heifer Housing Plans (1994), this 106-page publication offers twelve freestall housing plans, six heifer housing plans, four dry cow and maternity housing plans, and seven plans for details and components. For this edition, all plans have been revised to incorporate recommendations for freestall design, ventilation, and cow movement.

Also in this edition are introductory discussions for each section and a list of suggested readings. The freestall section offers plans for various two-row, three-row, four-row, and six-row freestall barns. Included in the heifer section are plans for bedded-pack housing, counter-slope housing, single-slope housing, and three types of heifer freestall barns.

## Dairyman Shares

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The life expectancy of Knigge's Lely robot is about 10 years. Lely offers routine maintenance and emergency service as needed, as well as providing numerous software and component updates.

What about the profitability of the operation?

As on any dairy farm, "with current milk prices, it doesn't leave room for many mistakes," Knigge said.

There are about 1,000 robotic milkers in the world with the majority of them in Europe. Canada has more in operation than the U.S. Several dairy producers in Pennsylvania have installed them within the last two years.

At this point, a certain number of robotic milkers are allowed in each state, pending wide-scale approval.

The section on dry cow and maternity housing contains ideas for housing dry cows in bedded pack groups, multiple pen barns with drive-through feeding, pre-fresh/maternity pen areas, convalescence areas, and post-fresh housing facilities.

Included in the detail and components section are sidewall curtains/drainage, watering locations, floor surfaces, feed barriers, freestalls, and ventilation openings. The plans are drawn for specific numbers of animals, but in most cases they can be changed to accommodate the numbers of cows or heifers needing housing.

Authors of Penn State Dairy Housing Plans, NRAES-85, are Robert E. Graves, Agricultural and Biological Engineering Department; Dan F. McFarland, Penn State Cooperative Extension, York County; and John T. Tyson, Penn State Cooperative Extension, Erie County.

Penn State Dairy Housing Plans, Second Edition, NRAES-85, is available for \$15 per copy, plus shipping and handling and sales tax, from NRAES, Cooperative Extension, P.O. Box 4557, Ithaca, NY 14852-4557.

The shipping and handling charge is \$3.75 for a single copy within the continental U.S. New York residents, add 8 percent sales tax (calculated on both the cost of publications and the shipping and handling charges). If ordering more than one copy or if ordering from outside the U.S., contact NRAES (Natural Resource, Agriculture, and Engineering Service) for shipping rates and possible quantity discounts. Orders from outside the U.S. must be prepaid in U.S. funds. All major credit cards are accepted, and checks should be made payable to NRAES. For more information or a free publications catalog, contact NRAES by phone at (607) 255-7654, by fax at (607) 254-8770, or by e-mail at [NRAES@CORNELL.EDU](mailto:NRAES@CORNELL.EDU). To learn more about NRAES and browse through our entire publications catalog, visit our Website at [www.nraes.org](http://www.nraes.org).

This and other information about Penn State Dairy Housing Plans is available online at [www.nraes.org/publications/nraes85.html](http://www.nraes.org/publications/nraes85.html).