

Penn Vet's Got Milk (and Ice Cream!)

The Scoop on the Dairy Program at New Bolton Center

BY SUSAN I. FINKELSTEIN

As it has been every year for over a century, this year's 109th Penn Annual Conference was a chance for Penn Vet colleagues and alumni to come together to share ideas and to learn and help shape veterinary best practices. Overheard at the 2009 conference, though, were some probing new questions urgently needing answers: Sweet cream or caramel swirl? One scoop or two? This year, the school served up something different and distinctly Penn Vet: ice cream made from the milk of cows housed at the Marshak Dairy at the school's New Bolton Center campus in Chester County, Pa.

Built in 1996, the greenhouse-style Marshak Dairy is considered one of the world's most innovative. Natural lighting and excellent ventilation within the barn create a healthy environment for the animals. **Dr. Robert Marshak**, Penn Vet's ninth dean and the dairy's namesake, was instrumental in establishing the farm. Not only home to a Holstein herd of nearly 400 cows producing 1,500 gallons of milk a day, the dairy is a working laboratory for students learning about cow healthcare, preventive medicine, nutrition and food safety. In addition to veterinary students, high school, college and veterinary-technician students spend time at the dairy in various capacities. The Marshak Dairy is also an ideal setting for research trials; projects largely have focused on nutrition, environmental sustainability, mastitis and cow comfort. Further, the group interacts with the Dairy Task Force of Pennsylvania and has several research projects involving production efficiency and environmental issues.

All the hands-on education and research couldn't come at a better time. Today's global economy has increased demand for dairy products in booming markets like China and India. In addition, drought in Australia and New Zealand has hurt exports in those countries. Hence, meeting the heightened secondary dairy needs for corn, wheat, fuel and packaging—much of which is petroleum based—in ecologically friendly ways has become yet another important part of today's dairy education.

"The dairy industry faces many complex challenges as we strive to meet the increasing global demand for dairy products in a manner that is environmentally sustainable," says **Dr. David T. Galligan, V'81, W'86**, professor of animal health economics and director of the Center for Animal Health and Productivity. "Our work is to develop tools in multiple dimensions that can help the industry meet these objectives."



Dairy program students are taught to be flexible so that they can meet the immediate needs of a herd as well as responsibilities of the dynamic industry at large. The program is designed to be a solid foundation of problem-solving skills to meet current and future problems. To achieve this goal, Penn Vet has assembled a diverse and enthusiastic group of faculty with interests in nutrition, reproduction, lactation performance, milking management, production statistics, economics, epidemiology, production record analysis and environmental impact, as well as the more traditional disciplines of internal medicine and surgery. An eight-week dairy production medicine course—taught by instructors from Field Service and the Section of Animal Production Systems in the Center for Animal Health and Productivity—offers intensive problem-solving at the herd level. Other electives, as well as independent studies in nutrition, record analysis, economics and application of Microsoft Excel in production medicine, allow interested dairy students to focus their experience at Penn.

To learn more about the Marshak Dairy and the dairy education program, visit www.vet.upenn.edu/NewBoltonCampus/Facilities/MarshakDairy/tabid/835/Default.aspx. For more information about the Center for Animal Health and Productivity, please visit the Web at research.vet.upenn.edu/cahp. 