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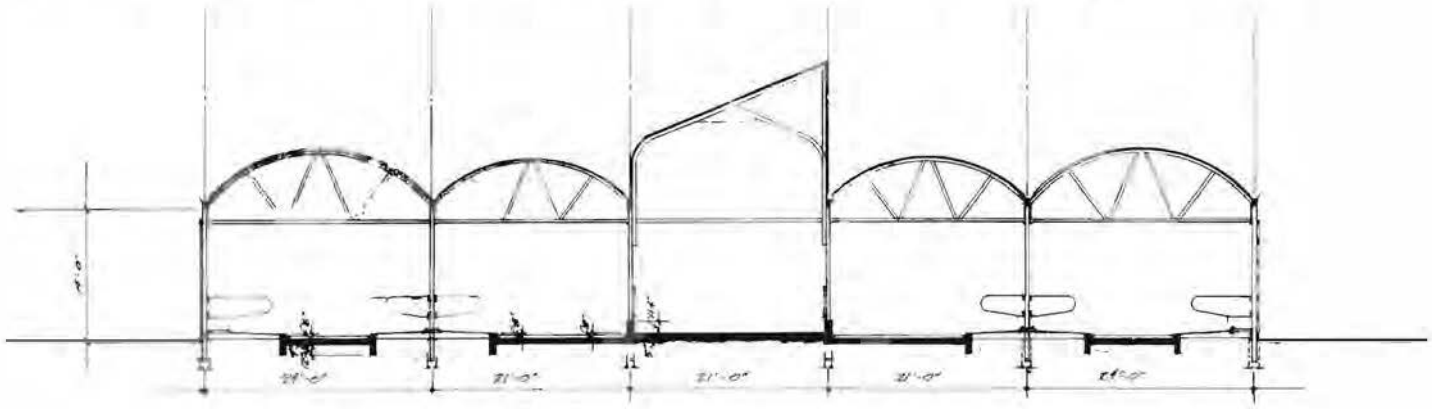

The University of Pennsylvania School of Veterinary Medicine has completed plans and signed contracts to start construction of a 200-head solar dairy barn for teaching and research at New Bolton Center in Chester County. The Allam Dairy Facility solar dairy barn will be a first in Pennsylvania. This type of barn, usually built in the Northern states and Canada, has proved to be a big boon to the dairy industry. A solar barn is energy efficient, naturally bright, and easy to keep dry, all essential conditions for productive cows. Also, it is cost effective in terms of manpower and building expense.

The Allam Dairy Facility solar dairy barn is named after Emeritus Dean, Dr. Mark W. Allam, Class of '32. Dr. Allam was interim dean of the School of Veterinary Medicine from 1952-1953. In 1953 he was appointed dean and remained in that capacity until 1973. Dr. Allam was instrumental in the development of New Bolton Center and still takes a great interest in it.

The new Allam Dairy Facility at New Bolton Center will serve as a living laboratory for the School of Veterinary Medicine. "It is a commercial dairy with modifications for extensive and intensive research. We recognized that in order for us to do relevant research we needed the environmental setting that emulates the real world," says Dr. William Chalupa, professor of nutrition at the School's Center for Animal Health and Productivity (CAHP). "It's like having an on-site patient for us to study," states Dr. David Galligan, associate professor of animal health economics at the School. "In this case our patient is the farm. We now can explore ways to keep the dairy farm healthy and productive while keeping costs at a minimum through the use of a living model."

The new facility will serve as a research and teaching site in such fields as epidemiology and preventative medicine, nutrition, reproduction, infectious and chronic diseases, and dairy cattle health economics. In addition, the new Allam Dairy Facility will provide the region a resource with potential for commercial applications and enhance the teaching environment for veterinary and graduate students interested in the medical and managerial aspects of dairying.

"In order to adapt to our climate we've made design modifications to reduce heat build-up," Dr. Galligan explains. "The shell of the building is pre-manufactured as a solar agriculture building, in essence, a plastic greenhouse." In the summer, the sides of the barn can be rolled to facilitate cross ventilation. The facility consists of an administration area that includes a room with view of the double ten herringbone milking parlor; four sections of 40 free stalls where cows can lie down; and, a space for 48 comfort stalls or traditional tie stalls. A commodity building and bunker silos will be located on the north side of the barn.

"The layout of the free stall area enables us to care for and milk approximately 160 cows with relatively little labor," says Galligan. Through the use of electronic gates the cows can be herded to the milking parlor and milked, requiring the labor of only one person.

The tie stall area accommodates 48 cows which are tied-up at feed bins in a traditional dairy farm fashion. This set-up will be used primarily for nutritional studies. Each cow can be fed a different mix and monitored by computer. The tie stall area of the barn can be converted to a free stall-style barn, if needed. Manure from the entire barn is deposited into an eight-month holding tank and is periodically and strategically spread onto fields which reduces the need for chemical fertilizer, cutting the overall farm cost.

The new dairy facility is made possible by a grant from the Commonwealth of Pennsylvania and through the generosity of the following: American Cyanamid Company, Princeton, NJ; The Bedford County Farmers Association, Bedford, PA; Church and Dwight Company, Inc., Princeton, NJ; Mr. Emerson C. Frey, Millersville, PA; Mr. W. B. Dixon Stroud, Media, PA; and Wawa, Inc., of Media, PA.

Penn's Center for Animal Health and Productivity at New Bolton Center, the School's large animal facility, was established in 1986 to implement teaching, research and service programs directed toward the improvement of health and productivity in food animal herds and flocks. The focus of CAHP is improved production through the maintenance of physical and economic health in the whole animal population.