

University Of Pennsylvania Dedicates Greenhouse Dairy Barn

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cially as to Marshak's vision of where human needs for veterinary science was headed, and how he helped the university chart its course for leading the field of medicine in maintaining its relevancy in conducting research and preparing new veterinarians for modern field experiences.

The dedication ceremony was overseen by Dean Kelly, and was attended by several hundred people, including Judith Rodin, president of the university, university trustees, vice presidents and all university school deans, state legislators and agricultural organization leaders, state Secretary of Agriculture Charles Brosius, representatives from other schools of veterinary medicine in the United States and Canada, the School of Veterinary Medicine's board of overseers, and faculty and staff from both campuses.

The new greenhouse barn is believed to be the first full-sized dairy cow barn constructed in the greenhouse style in Pennsylvania.

The technology incorporated in the Marshak facility represents a cross-section of almost every modern dairying technique employed in the industry.

For example, the facility uses a water-flushing system to clean its free-stall aisles of manure. The flushed material is then separated and the liquid recycled and eventually the manure is stored in a lagoon and used to fertilize fields.

The same feature exists near State College at the huge Evergreen Farms water-flush freestall facility with a 1,700-cow herd, owned by Wayne Harpster.

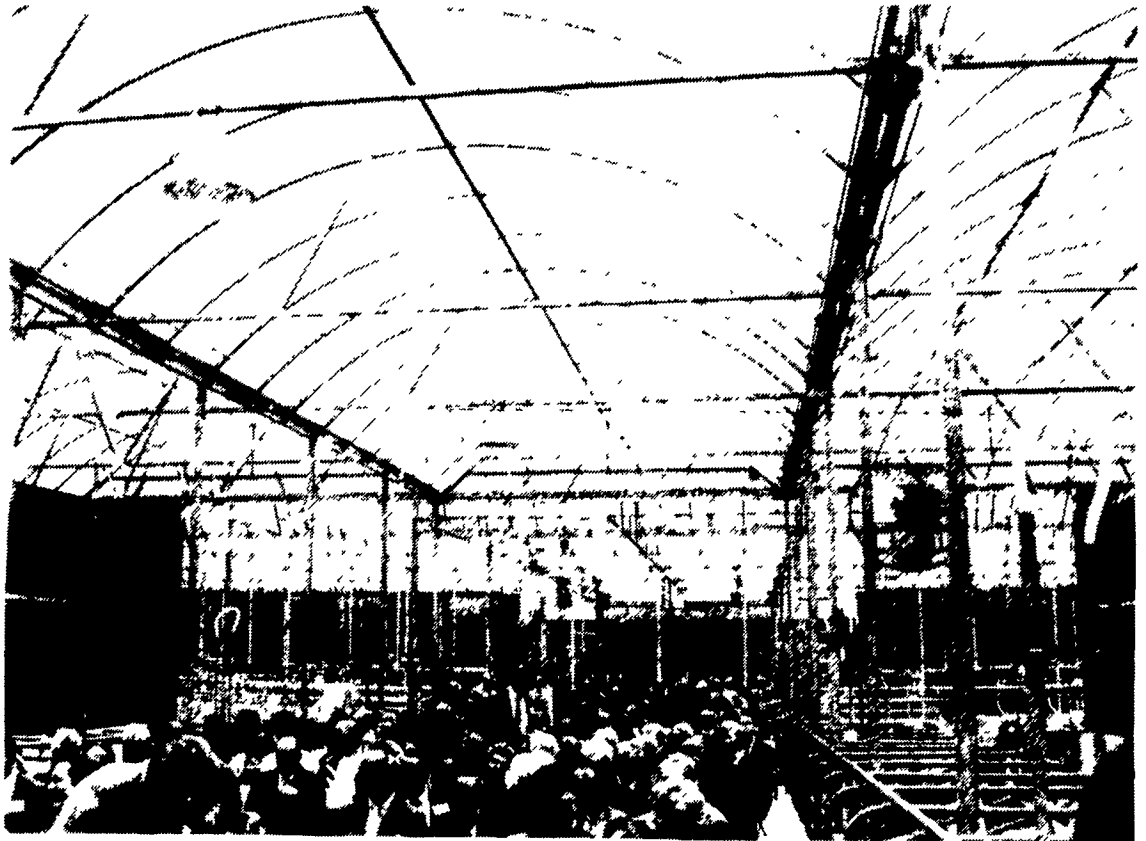
The greenhouse design represents the newest, and perhaps most affordable type of large housing, a fact not lost on the vet school.

According to facts provided during the ceremony, the barn roof is constructed with 111,600-square feet of 6-mil thick, semi-transparent polyethylene plastic stretched on a framework made from six miles of structural piping.

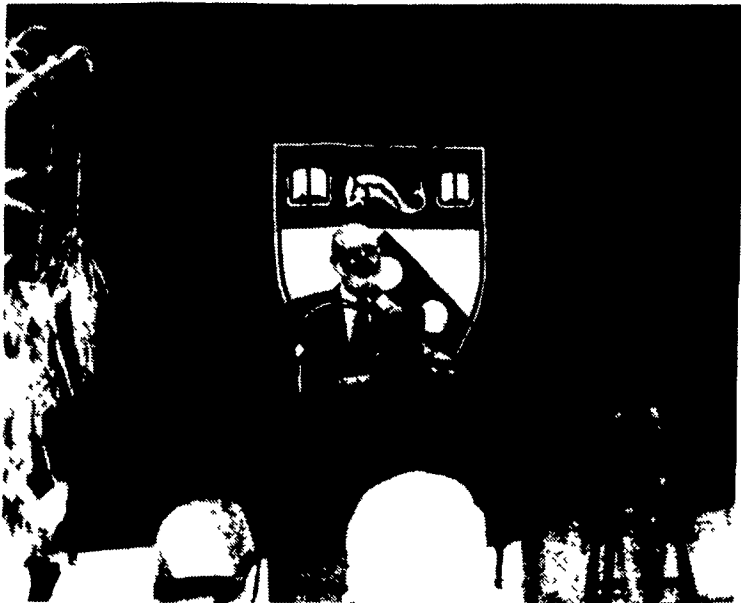
It rained during the ceremony, but with the white plastic, the arches and braces made by the piping, and the architectural design, the facility had an unusual brightness, sort of like a spiderweb in a fog.

The additional light may prove to be beneficial to the health of the cow.

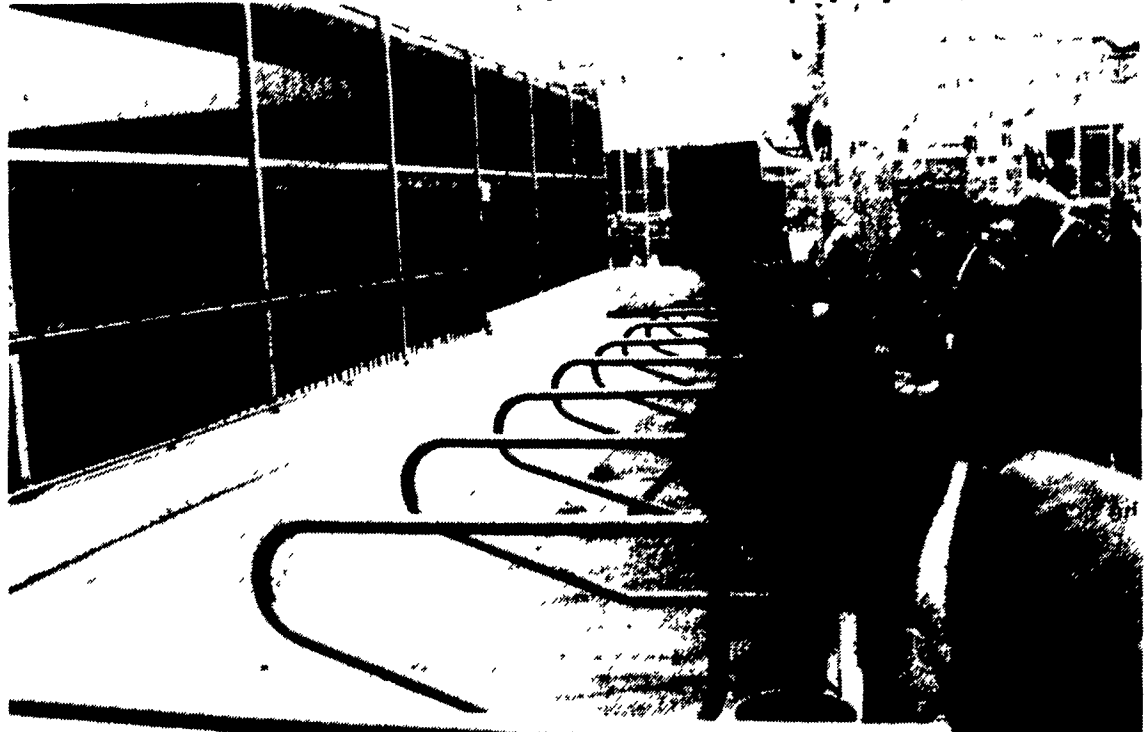
The curtained sidewalls of the facility were also striking because of the solar screening and



Six miles of structural piping was used to erect the new greenhouse-style Marshak Dairy Facility at the University of Pennsylvania School of Veterinary Medicine's Center for Animal Health and Productivity in New Bolton. This crowd of people is actually seated in a center aisle in the 200-cow freestall facility, beneath an 18- to 21-foot high white-plastic roof that uses 11,600 square feet of 6-mil polyethylene.



Dr. Robert Marshak, namesake of the Marshak Dairy Facility, part of the University of Pennsylvania School of Veterinary Medicine's Center for Animal Health and Productivity in New Bolton, addresses an audience of several hundred at the dedication of the facility. Seated directly behind Marshak is dean of the vet school Alan Kelly, while seated to the right is Judith Rodin, president of the university.



The Marshak Dairy Facility with the University of Pennsylvania School of Veterinary Medicine's Center for Animal Health and Productivity is built with an alley water-flush manure cleaning system. Here attendants at the dedication of the facility watch the first public demonstration of the flush system. The loudspeaker on the cow mattress is only a temporary fixture.



Dr. Alan Kelly, dean of the University of Pennsylvania School of Veterinary Medicine, gestures with outstretched arm for Dr. Robert Marshak, dean emeritus of the school, to lead the first cow into the University's 200-cow greenhouse-style research barn, named in honor of Marshak. With about 35,000-square feet of space, including a double-10 milking parlor, the freestall, cow matted facility was designed with many of the most modern features, such as the see-through solar blocking netting incorporated as part of the sidewall curtain system that is visible behind Kelly and Marshak.

windscreening — the sides of the facility appear as tinted glass — at once visible and solid looking, but at the same time allowing a complete view of the outside.

The solar netting is capable of blocking 98 percent of the sun, and the weather netting can restrict 80 percent of the wind and water. For additional ventilation there are 18 fans.

A double-10 herringbone computerized milking parlor with a rapid-exit gate, automatic take-offs, and teat rinse dispensers has a

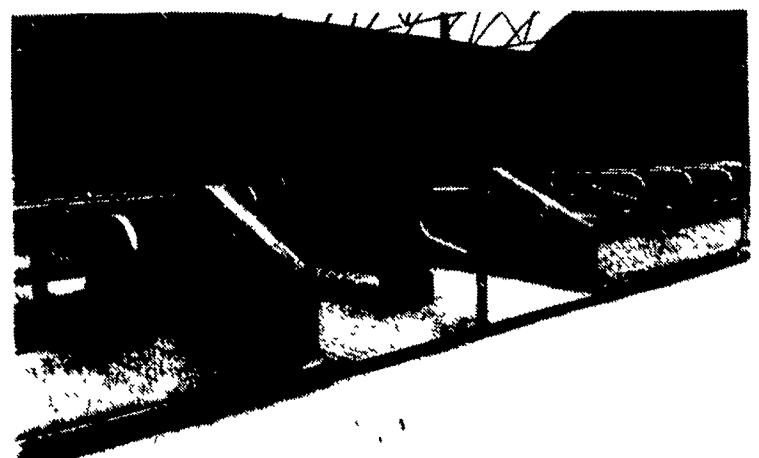
solid roof.

It too is similar in design to the Evergreen parlor, with solid sidewalls that are mostly able to be slid open for a breeze, or closed when too inclement.

The actual front of the facility consists of an administrative area, then a room overlooking the parlor.

From the parlor, the cows actually can be segregated into two separate milking herds, which was a function the School of Veterinary

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Tip watering tanks are located at key places in the new Marshak Dairy Facility.