Innovative Swine Teaching and Research Facility

US - As society’s view of how we raise animals in agriculture settings continues to evolve, these changing attitudes impact farming practices. University of Pennsylvania School of Veterinary Medicine’s commitment to livestock farmers includes giving them models to understand the changing times, and tools for staying at the forefront of livestock practices.

As part of that commitment, the Swine Teaching and Research Facility at New Bolton Center in Kennett Square, Pennsylvania, has been has expanded and updated. The project was funded, in part, by a donation from The American Society for the Prevention of Cruelty to Animals. An official opening for the facility is scheduled for Friday, 14 May, from 10 a.m. at 505 Byrd Road in Kennett Square, Pennsylvania.

The facility first opened in January 2001, and provides an alternative model for the housing of pregnant and lactating sows. The unique husbandry scheme it employs has been adapted by swine producers on more than 20 different farms across the country to house approximately 40,000 sows. The swine center has now been updated to examine the latest trends and technologies being implemented in European swine production facilities.

The 16,000 square foot building features state of the art technologies for animal comfort, feeding and nutrient management, primarily for 200 sows and their piglets. An additional 6,000 square feet of animal space has been added to the existing 10,000 square foot farrow-to-feeder pig facility reflecting two major changes. New farrowing rooms will now completely free of crates. Instead farrowing pens are designed with specific areas for piglet sleeping, piglet nursing/sow laying and sow elimination. The second major change involves the expansion and modification of the gestation area for pregnant sows. The sows now have the opportunity to go outside and may choose from several different styles of bedded areas within pen gestation on which to sleep or lounge. These changes provide opportunities to research the need for bedding, outdoor access and alternatives to the farrowing crate.

Still in place is electronic sow feeding, a computerised feeding system that utilises a microchip to uniquely identify each animal and ensures individual animal nutrition even in a group setting. A separate computer controlled mix mill and pneumatic delivery system allows any animal in the barn to be feed any ration at any time.

Thomas Parsons VMD, PhD, Associate Professor and Director of the Penn Vet...
Swine Teaching and Research Center designed the new facility based on his studies of European farms where customer demands have required the development of alternative husbandry practices. The facility was constructed by Farmer Boy Ag Systems of Myerstown, Pennsylvania. Equipment for the project was supplied by Schauer Agrotonics, Prambachkirchen, Austria; MIK International, Siershahn, Germany; and Automated Products, Assumption, Illinois. Breeding stock for the farm will be donated by PIC, Hendersonville, Tennessee. According to Ines Rodriguez VMD, veterinarian in charge of swine health and welfare at the center, “Alternative husbandry systems are of increasing importance to US pig farmers as there is a growing awareness amongst consumers about where their food is coming from. Consumers are questioning how the animals raised for food production are reared. Improved animal welfare, minimal environmental impact, and the absence of antibiotics and hormones are all attributes that many modern consumers are seeking.” The approximately 4,000 piglets born at the facility each year will be sold to independent producers in an antibiotic-free/welfare friendly niche market. An additional 100 piglets are sold to young participants of the Chester County 4H Pig Club.

Alternative husbandry practices offer farmers economic benefits. Animal comfort and health are key to good production and often a premium can be garnered for these animals. “This project,” said Dr Rodriguez, “has been good for both large and small Pennsylvania producers who have found different niches in the market as welfare-friendly producers.” Nearly 10 per cent of the sows housed on Pennsylvania farms are utilizing pen gestation systems like those used at New Bolton Center.

The facility is designed to allow for observation of the animals while still maintaining a high level of biosecurity. A 1,000 square foot classroom in the center of the facility has windows overlooking the gestation area and viewing windows in the ceiling of the new farrowing facility constitute the floor of a loft observation area. Another feature of the facility is its capacity to meet 10-12 per cent of its energy requirements through the use of solar power.

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