Penn Vet’s New Bolton Center Plays an Integral Role in Pennsylvania’s Farming Industry

Pennsylvania’s farms are a rich source of nutrition for the nation and a critical part of the Commonwealth’s economy. Veterinarians at Penn Vet’s New Bolton Center contribute to the farming industry through their work and research, conducting disease surveillance and immunization programs and providing expert guidance on animal reproduction, housing, and farm production efficiencies. New Bolton Center hospital treats animals from throughout the region, and its Field Service provides veterinary services at local farms. Penn Vet is training Pennsylvania’s future veterinarians, supplying more practicing veterinarians to the state than any other institution.

**Center for Animal Health and Productivity** focuses on improving the health of livestock herds while incorporating the economic, environmental, and food-safety aspects of the entire farm. Students learn strategies for increasing farm productivity including milk-yield evaluation, calving and reproductive efficiency, and even basic economics and record keeping. In addition to veterinarians, the diverse faculty includes nutritionists and an agronomist.

**Dairy and Swine Outreach Service** provides a comprehensive evaluation for farms that are facing challenges. New Bolton Center veterinarians diagnose the problems, make recommendations for solutions, and evaluate the progress as the turnaround plan is put into place. These experts examine all aspects of the farm with the goal of increasing efficiency and profitability, focusing on areas including health, nutrition, reproduction, herd management, and environmental impacts.

**Section of Reproduction and Behavior** provides comprehensive reproductive services for mares and stallions. Based at the Georgia and Philip Hoffman Research Center for Animal Reproduction at New Bolton Center, veterinarians work closely with board-certified surgeons and internists to provide routine and emergency care. Their ongoing basic and applied research contributes to the advancement of theriogenology, the study of animal reproduction. In addition, the Reference Andrology Laboratory provides service to the North American animal industries. This laboratory offers complete testing of semen from mammals and birds, which serves as an aid to practitioners working on reproductive issues.
Swine Teaching and Research Center is world-renowned for research on the housing of pregnant sows and their piglets, and on herd reproductive performance. The Center has created the “Penn” model of gestation housing, using state-of-the-art technologies for animal comfort, animal feeding, and nutrient management. Farms throughout Pennsylvania and the nation have adopted the Penn barn design.

Marshak Dairy has a herd of 200 cows and their calves and provides a working laboratory for faculty to conduct research and for students to learn about topics such as cow healthcare, preventive medicine, nutrition, and food safety. Research projects include nutrition, environmental sustainability, mastitis, and cow comfort. The dairy also provides teaching opportunities for high schools, colleges, and universities.

William B. Boucher Field Service provides routine and emergency medical care to thousands of animals on farms within a 30-mile radius of New Bolton Center. The veterinarians offer preventive health care, reproductive services, evaluation and treatment of medical conditions, and on-farm diagnostic services. The field service treats nearly 30,000 animals a year, primarily horses and cows, but also llamas, alpacas, sheep, and goats. The field service veterinarians also offer consultation on milk quality and animal production to farms throughout the state.

Pennsylvania Animal Diagnostic Laboratory System (PADLS) and Pathobiology provide full veterinary diagnostic services – including toxicology, pathology, and microbiology – to the Commonwealth. The clinical service laboratories at New Bolton Center manage a frontline detection system for many emerging diseases – such as avian influenza, mad cow disease, and West Nile virus – that are of public health significance. The clinical services are integrated into the research mission to provide data necessary to document the natural history of disease.

A subunit of PADLS is the Poultry Diagnostic Service. New Bolton Center has been instrumental in developing a statewide avian flu surveillance program, which involves the use of Geographic Information System (GIS) technology. In the last two outbreaks of avian flu alone, this system was instrumental in averting nearly $5 billion in damages. The faculty members not only provide diagnostic information, but also advise on the treatment, control, and eradication of infectious diseases.

Epidemiology and Public Health create models regarding the potential effects of infectious diseases in food animals, horses, and wildlife, looking at various types of diseases including those that can pass from animals to humans. Our faculty works with the Pennsylvania Department of Agriculture and the farming industry to develop comprehensive programs to avoid the spread of disease and to protect humans and livestock from dangerous pathogens.

Pennsylvania Johne’s Disease Advisory Committee advises the Pennsylvania Department of Agriculture on the implementation of Johne's Disease control and participates in Johne’s Disease certification training sessions for Pennsylvania veterinarians. Johne’s Disease can have a serious economic impact on Pennsylvania’s cattle and other ruminants. Researchers at Penn Vet helped to develop the National Voluntary Johne’s Disease Control Program and serve on the PA Johne's Disease Advisory Committee. The laboratory also provides Johne's Disease diagnostic testing. Currently, our researchers are studying ways to prevent Johne's Disease infection in calves, including vaccination and prophylactic medication.