

## **Testimony for the House and Senate Agriculture and Rural Affairs Committee Joint Informational Meeting**

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Good morning Chairman Vogel, Chair Schwank, Chairman Causer, Chairman Pachinski, and other distinguished members of the Senate and House Agriculture and Rural Affairs committees. Thank you for the opportunity to discuss the critically important subjects of *Animal Health, Biosecurity, and Secure Food Supply*, which in turn also highlight animal welfare and reducing human exposure to pathogens.

We have many challenges in animal health, biosecurity, and food supply, but the rapid spread and impact of African Swine Fever, a highly contagious and deadly viral disease affecting both domestic and wild pigs, has certainly focused attention on biosecurity. Not only has the disease spread across Asia and Europe, the estimate of loss in China due to African Swine Fever is now as high as 50% of their animals. This is equivalent to all of the hogs in the rest of the world. There was a 63% jump in China's pork imports in May raising the specter of a shock to global markets from this devastating loss of protein, a clear and present danger to a secure food supply.

In addition to the steps taken by the Pennsylvania Department of Agriculture (PDA) and USDA to raise awareness and reduce risk, the College of Agricultural Science and Penn State's Center for Security Research and Education have initiated planning with PDA, especially Kevin Brightbill, for a *Foreign Animal Disease Preparedness and Response Symposium* to be held in mid-March, 2020. Our aim is to develop a broad discussion and "cross-check" of our preparedness for African Swine Fever and other threats. We expect an attendance of approximately 150, including government (especially USDA-Animal and Plant Health Inspection Service, APHIS), industry, extension and faculty.

While we are, of course, acutely aware of African Swine Fever, we also cannot take our eyes off current and continuing issues animal health and biosecurity across Pennsylvania and the US, such as in poultry, including avian flu, *Coryza* bacteria and bedbugs.

We remain vigilant and actively engaged in researching solutions for avian flu and other diseases, and integrate this with Extension training programs. With financial support from the legislature 3 years ago, we have appointed 5 Extension staff and 5 faculty, including veterinarians. One of those faculty, for example, Dr. Troy Sutton, Assistant Professor of Veterinary and Biomedical Sciences, is an expert on avian flu and vaccine development. Just in the last few weeks, from funding provided by Penn State Provost Nick Jones, we hired Dr. Erika Ganda, Assistant Professor of Food Animal Microbiomes, the understanding of which is essential for more efficiently managing pathogenic bacteria and reducing dependence on antibiotics.

Another new appointment, Dr. Gino Lorenzoni has reported that "There is a tremendous shortage of specialized poultry veterinarians in Pennsylvania. This shortage, coupled with the increasing popularity of 'backyard flocks', has likely contributed to our state having the highest number of salmonella food poisonings per capita in the USA (over 3,000 cases, 700 hospitalizations, and 8 deaths during the last year on record, according to the Centers for Disease Control)". To address this problem, Dr. Lorenzoni is leading a team of poultry professionals (from The Pennsylvania State University, the University of Pennsylvania, and the USDA) who will serve as instructors for a 3-day course on food safety and bacterial, viral, and parasitic diseases of poultry. Dr. Lorenzoni is currently writing a poultry diseases guide that will serve as the foundation for the course, to be distributed to the course attendees, and will be published on the Penn State Extension website. At the end of the course, the attendees will be capable of diagnosing the most common poultry diseases in small flocks and for training flock owners to safely handle eggs and poultry meat.

These new hires and other physical improvements and new equipment, funded by both the legislature and Penn State, have significantly improved the capabilities of our Animal Diagnostic Laboratory, which of course collaborates with similar labs at PDA and the University of Pennsylvania School of Veterinary Medicine.

Our ADL research team jumped quickly from the initial detection of the *Coryza* outbreak in December to DNA analysis of multiple strains in January. With collaboration from U Penn, they developed a rapid and specific PCR assay, identifying the pathogens, and testing for any genetic variation among them, including identifying the correct vaccine. All of the isolates were very similar, implying that the bacteria have spread from a common source.

More recently, we became aware of problems with serious bedbug infestations in poultry houses. Some of you may have attended a research tour to the laboratory of Dr. Nina Jenkins, who is the world expert on controlling bedbugs with a preparation using an insecticidal fungus, *Beauveria bassiana*, safe to all vertebrate animals, which is now used commercially for bedbug control in homes and hotels. The current product is not suitable for poultry houses, but Dr. Jenkins has taken the lead on developing new formulations and application methods that could be.

More broadly, our poultry extension team has responded to poultry industry requests for non-credit courses for workforce development, and have a section on animal health and biosecurity in all of them. This includes a new hatchery school scheduled for October and a brooder school in the spring of 2020 (Brooder schools teach farm managers and company representatives how to care for the young birds that are placed in a house, making sure the health, nutrition and environment are optimum for growth). We will have two new poultry extension educators working by next week, and that extra help will assist in developing and delivering these courses.

Finally, I'm also delighted to follow up on my testimony last year that Penn State has allocated \$98 million to replace the Henning Building, which housed much of Veterinary and Biomedical Sciences and Animal Science, with demolition of the old building already underway.

Collectively, we have much to do to address the biosecurity threats to food and the welfare of our food animals, but I am impressed with the collaboration and determination to remain prepared.