

Swine Committee Report

2011 NIAA Annual Conference

Tuesday, April 12, 2011



The Swine Committee met on Tuesday, April 12, 2011 from 10:30 am to 12:30 pm during the 2011 NIAA Annual Conference in San Antonio, Texas with 21 people present. Dr. Harry Snelson served as Chair, and Dr. Butch Baker, Vice Chair

The following speakers presented relevant information:

Dr. Lisa Becton, Director of Swine Health Information & Research, National Pork Board, presented “Pork Industry Carbon Footprint.” Dr. Becton updated the committee on some recently conducted research to evaluate the U.S. pork industry’s carbon footprint. This is part of a number of sustainability research projects Pork Checkoff is funding over the next few years (including water, air and land footprints). This research will serve as a baseline and benchmarking tool to help defend industry practices as well as facilitate producer improvements. The research focuses on the entire pork chain continuum. It utilizes a 3 phase approach including a literature review, scan Life Cycle Assessment (pork chain) and detailed LCA (impact of live swine). The carbon footprint analysis evaluated impacts on methane, nitrous oxide and carbon dioxide. The literature review indicated a need for further research. There was no systematic analysis of U.S. pork chain greenhouse gas emissions. Preliminary results indicate that the U.S. pork industry contributes 3.8 Kg-CO₂e/kg carcass weight. Results of the research were compared to published results from other countries and species. Comparisons may not necessarily be valid.

Dr. Lisa Becton, Director of Swine Health Information & Research, National Pork Board, presented “Pork Forum Report.” Pork producers approved a resolution at the 2011 Pork Forum that offered additional recognition of ongoing PRRS elimination projects, essentially supporting the ongoing research efforts of the National Pork Board. The resolution reads as follows:

“That the National Pork Board continue to be engaged in the PRRSV elimination discussions that prioritize research and education towards continued development and application of tools and strategies with the goal of elimination of the PRRSV virus.”

Currently there are several PRRS regional elimination projects underway. Some are funded by USDA’s PRRS CAP, Boehringer-Ingelheim’s ARC&E program and individual state efforts. There is a need to disseminate information to producers and veterinarians. The National Pork Board and the American Association of Swine Veterinarians could facilitate information dissemination to their targeted audiences.

Dr. Jeremy Pittman, Staff Veterinarian, Murphy-Brown, LLC, presented “Swine Dysentery Re-emergence.” The incidence of “bloody scours” appears to be re-emerging in the North American swine industry. Traditionally caused by *Brachyspira hyodysenteriae*, the disease disappeared from the U.S. swine industry during the 1990s. Re-emergence reappeared in 2004-05 largely among grow-finish pigs. In some cases recently, the industry is observing bloody scours without culturing *B. hyodysenteriae*. Diagnostic labs are also diagnosing *B. hyodysenteriae* without clinical disease. Should this be better referred to as “Swine *Brachyspira*” or *Brachyspira*-associated colitis or Porcine Enteric Disease Complex (PEDC)? A Novartis study shows variability in diagnostic results with regards to clinical signs and the association with *B. hyodysenteriae*. A study conducted by Trevor Schwartz examined clinical signs associated with *B. hyodysenteriae* and 2 types of *Brachyspira* spp. They found no difference in clinical

presentations. All *Brachyspira* species produced clinical disease. In the field, Dr. Pittman's work shows that clinical presentation does not associate with pathogens detected on laboratory examination. Clinical presentation is highly variable; you do not always see blood and/or mucus in fecal samples. It's easily missed on cursory barn inspections. Histopathology is supportive but not diagnostic. Some debate regarding the best diagnostic sample for bacterial culture including rectal swabs, colonic scrapings, or fecal material. Economic estimates average approximately \$12 per pig. The disease negatively impacts feed conversion, average daily gain, mortality (may double), increased live weight pigs, size variability, increased medication, eradication costs, etc. The industry is struggling with how to respond. Do you treat, control or eradicate the disease? The highest risk factor for transmission is largely infected pigs and exposure to infected pests. The bacteria survive well in feces (7 days), moist feces (40 days), soil (18 days) or feces + water (61 days). There is no vaccine. Control relies on sanitation, strategic medication, reduced risk factors and control of co-infections. Eradication may be attempted by 2 routes: treatment with Tiamulin or depopulation with emphasis on removal of infected pigs and rodents along with thorough cleaning and extended downtimes. There is the question about bacterial survival in waste lagoons.

Dr. Jon Zack, Director of Preparedness & Incident Coordination, USDA/APHIS, presented "USDA Program Updates: PVR/BR Program Update, Garbage Feeding Report, CSF Surveillance Program, and Influenza Surveillance Project." Dr. Zack was unavailable but provided his presentation, which was given by the committee chair Dr. Harry Snelson. USDA's surveillance vision is based on moving from program-based surveillance program to a comprehensive program that routinely collects samples from established surveillance streams. These samples could then be subjected to a variety of diagnostic tests depending on regulatory and industry needs. The agency plans to merge the PRV & Brucella testing into a stream-based program. **PRV Update:** All states remain PRV Free in the commercial herd. One herd (dually infected with PRV & Brucellosis) was indemnified in FY 2010. Samples were tested from the following sources: VDL (14,564), cull sow-boars at slaughter (278,022), market swine (meat juice — 13,318), and feral swine (2,653). USDA will be publishing a concept paper within a year describing the plan to merge the PRV & Swine Brucellosis programs for public comment. **Swine Brucellosis:** The Kentucky and Kansas labs tested 277,811 samples in FY 2010. Three transitional herds were indemnified for brucellosis (two in Texas, one in Florida). **CSF Surveillance:** NAHLN labs tested 14,666 swine in FY 2010. **Swine Health Protection Act:** 1405 licensed premises, 7462 inspections, 94 violations, 142 nonlicensed feeders identified. **Trichinae Herd Certification:** 42 farms participating. **SIV surveillance:** The objectives are 1) monitor genetic evolution and ecology, 2) provide isolates for research, and 3) provide isolates for vaccine development and diagnostic uses. Sample submission has increased dramatically since inception of the program in the fall of 2010.

Old Business: None

New Business:

Consensus Points for NIAA White Paper Development:

1. Movement to comprehensive and integrated swine surveillance program is strongly supported by the swine industry and veterinarians.
2. USDA should provide surveillance data to the National Surveillance Unit for additional epidemiological analysis.

General discussion: None

Committee Session adjourned at 12:17 pm.