Veterinary Services programs consist of surveillance for foreign animal diseases (FADs), and surveillance / eradication programs for diseases which are endemic in commercial swine or those in the ever-expanding feral swine population which pose risk to the commercial population. These consist of Classical Swine Fever (CSF) (Hog Cholera) surveillance, Pseudorabies (PRV) surveillance, swine brucellosis (SB) surveillance, and trichinae herd certification voluntary programs. New pilot programs in development and in search of funding are those for foot and mouth disease (FMD) and swine influenza (SIV).

The purpose for this presentation is basically to briefly overview what we are doing in each of these disease programs and to demonstrate that our guidepost for these programs is the swine industry and the National Pork Board (NPB) with which we make every effort to work closely with their representatives. We attempt to present materials yearly to AASV and to other national meetings where swine industry is involved, but also to have swine industry and NPB representatives at our planning sessions.

**Classical Swine Fever** Surveillance has been of increasing importance over the years as we look at our vulnerability to agro-terrorism and the commonly found swine international farm worker that may routinely travel between CSF infected countries like southern Mexico, Cuba, Dominican Republic, and others more distant. We carry out a multi-faceted surveillance program in cooperation with private practitioners on the farm that may run across look-alike potentially CSF-infected animals (Erysipelas, PCVAD, septicemias), etc.). Undiagnosed cases meeting the case definition are subjected to CSF testing. Slaughter animals condemned and meeting the case definition are tested for CSF by PCR. Wildlife services will test upwards of 2000 feral swine nationally for CSF, SB, PRV. Our greatest concern lies with Puerto Rico, where the pressure to find a better life by residents of Dominican Republic brings boatloads of people illegally into Puerto Rico carrying improperly processed sausage potentially carrying viable CSF virus. Additionally, 31 states still permit feeding of garbage to swine. Puerto Rico alone has in excess of 1200 garbage feeders. This is a high risk area for the introduction of CSF. We perform monthly inspections of the licensed garbage feeding premises to assure cooking at 212°F for 30 minutes to destroy infectious agents like CSF and FMD virus.

**Pseudorabies** eradication was a very successful collaboration of the work between industry and VS. Today, we consider this a FAD in the commercial compartment. Incursions of PRV are rather common when transitional swine herds are in close proximity to feral swine. Transitional herds are defined as those herds that have exposure to feral swine or have the opportunity to be exposed by means of fenceline exposure in a feral swine populated area. In most cases, transitional herds are small backyard herds or even hunt
clubs. Small backyard herds are the norm in southern states like FL where few commercial herds exist. Pseudorabies outbreaks in transitional herds have been rather common in feral dense areas in the southern states. Outbreaks in 2007 and 2008 have occurred in FL, AL, GA, SC, and even in northern states like WI and MI where feral swine are developing new populations. Our usual methods for dealing with these outbreaks include quarantine, trace-out investigations and testing, indemnity to the owner, and depopulation. If indemnity is accepted, the owner must develop an acceptable herd plan to demonstrate willingness to change management and exposure adequately to prevent future infections in repopulated herds.

**Swine brucellosis** activities are a mirror image of the Pseudorabies program and require no further explanation, except to say that with a zoonotic disease, we are providing information to owners and producers to help them understand how to prevent their own infections in family members from occurring.

Depending upon location, we have found **feral swine** to be infected at a 0 – 10% prevalence for SB and a 0 – 30% prevalence for PRV. VS considers all feral swine to be infected with these disease agents until proven otherwise and work closely with swine industry to assist in adequate biosecurity programs to prevent exposure in commercial herds. Feral swine present our greatest threat today in maintaining free status. There are numerous commercial herds in various states that pasture the herd. With increasing feral swine presence and expansion, the movement of these diseases into the commercial compartment is a daily increasing risk. Some states have programs aimed at feral swine eradication, however, with huge demands on state funds today and the resilience of feral swine, rarely is there an eradication success story. Add to that the desirability of feral swine for year-around hunting, the efforts to eradicate are often reversed by local reintroductions. Feral swine have populated into northern states like Minnesota and Michigan where we thought that survival in the winter would be improbable. However, quite the opposite, populations thrive and expand in these states as well.

Our **trichinae herd certification** program is voluntary. It is aimed at documentation of swine management practices to minimize risk of exposure to swine. It facilitates the free trade of product to various countries wanting assurance of risk reduction for this human parasite through pork.

Pilot programs for **FMD surveillance** and **SIV surveillance** (in cooperation with CDC) are just being developed. These have been requested by industry for some time, thus we have worked with industry to develop the program and secure funding. The FMD pilot will mirror what is being done in CSF Surveillance. SIV surveillance is a new pilot program in cooperation with CDC to be initiated in 2009. Multiple factors pushed us into this involvement including: emergence of the H3N2 subtype, triple reassortant viral mutations involving swine, avian, and human influenza A virus genes, and multiple reassortant events \( \rightarrow \) new virus + “old” (classical) SIV \( \rightarrow \) unique SIVs. The goal is to better understand the epidemiology and ecology of SIV in swine in the US by 1. establishing strain incidence and distribution of SIV in the United States and 2. identifying novel isolates that may cause more severe clinical illness in swine.
Additionally, industry has requested PRRS programs. This has been given consideration also and currently lacks available funding to take off, however we have run pilot cooperative agreements in states like Minnesota.
ETHICAL PRINCIPLES
KEY MESSAGES
MAINTAINING TRUST P1
MAINTAINING TRUST P2