African swine fever virus (ASFV) is the only known arthropod-transmitted DNA virus. It results in high morbidity and mortality of infected swine and has serious implications for agricultural economies and trade. ASFV infection in swine is reportable to the World Organization for Animal Health (OIE). Currently, the United States is ASFV-free; however, the recent spread of the virus into new areas in Asia and Europe increases the risk of its introduction into the Western Hemisphere.

The National Wildlife Disease Program (NWDP) recently completed a review of ASFV, its potential introduction into the U.S., and the possibility of it becoming established in feral swine and native tick populations.

Despite a robust U.S. regulatory framework, the illegal importation of animals and their products is very difficult to control and manage. Introduction or spillover of ASFV into feral swine populations would significantly complicate an ASFV eradication program in domestic swine. Areas at high-risk for ASFV introduction include garbage feeding operations, backyard swine operations, feral swine hunting clubs, military bases, international air or sea ports, and/or farming operations utilizing an international labor force. Additionally, the movement of feral swine across borders presents a challenge in the event of an ASFV incursion into Canada or Mexico.

Although a substantial amount of research has been conducted on ASFV, there is no approved vaccine available to protect domestic or feral swine. Thus, early detection is critical to the rapid control and successful elimination of the disease. Introductions of ASFV into Europe and Asia suggest that passive surveillance is an effective tool in a coordinated early detection system. The NWDP is conducting passive surveillance in feral swine as part of a coordinated effort by APHIS and industry partners to rapidly detect ASFV if introduced into the United States. Wildlife Services recently worked with Veterinary Services to host two foreign animal disease training sessions for NWDP disease biologists and feral swine specialists, ensuring they have the latest information on disease detection and reporting procedures.

Passive surveillance capitalizes on the expertise of NWDP wildlife disease biologists, and other state and federal wildlife biologists to identify unusual morbidity and mortality events in feral swine. If any such event warrants further scrutiny, wildlife disease biologists work with Veterinary Services and State Agriculture Departments to determine if a foreign animal disease investigation should be initiated.

Because coordination is key, and managing an outbreak requires cooperation among multiple agencies, cooperators, laboratories, and stakeholders, the NWDP is evaluating ASFV response procedures with its partners. Responses to ASFV outbreaks in wild boar in Europe show that coordinated management actions (i.e., carcass removal of dead boar and population reductions) successfully limit ASFV spread in free-ranging boar populations. Similar actions may be necessary if ASFV were detected in feral swine in the U.S. NWDP also supports additional research to help refine surveillance and risk analyses by understanding contact rates between feral swine and domestic swine in the United States, and developing additional serological assays.

For additional information see:

A Review of African Swine Fever and the Potential for introduction into the United States and the Possibility of Subsequent establishment in Feral Swine and Native Ticks

Swine Hemorrhagic Fevers: African and Classical Swine Fever Integrated Surveillance Plan

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