What: Brief communication to US swine veterinarians and other US pork industry stakeholders
Date: 10/08/2019
From: Iowa State University Veterinary Diagnostic Lab
Subject: Case series of high porcine mortality associated with *Streptococcus equi* ssp *zooepidemicus* in assembly yards

The following serves to raise awareness concerning two recent and potentially related cases of cull sows and feeder pigs in assembly yards in the Midwest experiencing high mortality rates due to bacterial sepsis caused by *Streptococcus equi* ssp *zooepidemicus*.

The clinical picture observed included lethargy, weakness, high fever (in case from hog buying station), swift spread among pigs of highly varied sources within the affected premises, and rapidly escalating mortality levels approaching 30 - 50% among affected populations.

African Swine Fever and Classical Swine Fever were ruled out as part of the extensive diagnostic evaluation and testing on these case submissions.

In the second quarter of 2019, incidents of elevated swine mortalities in assembly yards due to *Streptococcus equi* ssp *zooepidemicus* were observed in Western Canada (Canadian West Swine Health Intelligence Network).

While *Streptococcus equi* ssp *zooepidemicus* is an opportunistic commensal in horses, it is not commonly isolated from swine, with only 6 reported isolations from clinical diagnostic case investigations of swine over the past 10 years at the Iowa State University Veterinary Diagnostic Laboratory (ISU VDL).

In summary, *Streptococcus equi* ssp *zooepidemicus* has been identified in recent case submissions from assembly yards as the cause of acute deaths in sows and feeder pigs, characterized by rapid clinical course of prostration, fever, and high mortality.

The rapid spread and progression of disease in the mature sows in these affected premises that originated from a myriad of different breeding herds of origin, coupled with the limited number of *Streptococcus equi* ssp *zooepidemicus* isolations from clinically ill pigs in the US, suggests much of the US pig herd has not been previously exposed to this particular organism.

Awareness should reinforce biosecurity efforts, particularly related to transport and collection points.

In-vitro antimicrobial susceptibility testing of the *Streptococcus equi* ssp *zooepidemicus* isolates from these cases suggest that this organism is susceptible to a broad complement of antimicrobials commonly used to treat *Streptococcal* diseases in swine.

Efforts to further characterize the *Streptococcus equi* ssp *zooepidemicus* isolates from these most recent and past case submissions are in progress.