

Title: Understanding the survivability and infectivity of African swine fever virus in various environments, **NPB #19-098**

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Scientific Abstract: African swine fever (ASF) causes high case fatality in pigs and is a trade-limiting disease that causes significant economic losses to pork production. The ASF virus (ASFV) is resistant to environmental degradation and maintains infectivity in swine feed ingredients exposed to transoceanic shipment conditions. As ASFV is transmissible through consumption of contaminated feed, the objective of this study was to evaluate the stability of ASFV Georgia 2007 in three feed matrices (complete feed, soybean meal, ground corncobs) exposed to three environmental storage temperatures (40°F, 68°F, 95°F) for up to 365 days. ASFV DNA was highly stable across feed matrices and was detectable by qPCR in almost all samples through the conclusion of each study. Infectious ASFV was most stable in soybean meal, maintaining infectivity for at least 112 days at 40°F, at least 21 days at 68°F, and at least 7 days at 95°F. This data helps define risk of ASFV introduction and transmission through feed and ingredients.

These research results were submitted in fulfillment of checkoff-funded research projects. This report is published directly as submitted by the project's principal investigator. This report has not been peer-reviewed.

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