ISAH webinar: African Swine Fever - Present state, spread & prevention

Key note speaker: Dr.Suphachai Nuanualsuwan



Dr. Suphachai Nuanualsuwan
Faculty of Veterinary Science
Chulalongkorn University,
THAILAND



ASF Risk-based surveillance for the pork production chain

Suphachai Nuanualsuwan

- Doctor of Vet. Med. from Chulalongkorn University
- Master of Preventive Vet. Med.
 University of California, Davis, USA.
- Ph.D. in Food Science from University of California, Davis, USA.
- Research areas : Microbial Food Safety
 Microbial Risk assessment

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Abstract

According to OIE, import risk analysis was recommended to importing countries as an objective and defensible means to systematically assess animal disease risk. The risk analysis is composed of hazard identification, risk assessment, risk management and risk communication. The main idea of risk assessment is to qualitatively or quantitatively evaluate the risks associated with a hazard. In this case, hazard is the African swine fever virus (ASFv) infecting animals or contaminating animal products, animal genetic material, feedstuffs, biological products and pathological material. The release assessment as the first step of risk assessment is to determine the likelihood of introducing hazard (ASFv) into the importing countries through all possible entry pathways annually. Then, the exposure assessment is the next step where animals or hosts in the importing country are exposed to ASFv through all possible exposure pathways annually. These two steps of risk assessment play an important active surveillance to early detect ASFv in the pork production chain. The surveillance system when applied to the entry and exposure pathways in the context of risk assessment could be categorized as importing and domestic surveillances, respectively. The importing surveillance was assigned to all possible entry pathways such as lived pig, pork & its products, inanimate (fomite), feed & ingredient, and biologics. domestic surveillance was designated to all possible exposure pathways either directly or indirectly to the live pig across the pork production chain from production, collection, transport, slaughter, processing, wholesale, retail, to consumer. Either known and unknown ASFv prevalences in each individual entry and exposure pathways proportionately require the sample sizes to define the ASFv-free circumstance of a country.



