

Is African Swine Fever also transmitted through feed?

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African swine fever (ASF) has spread in Europe and other parts of the world in recent years and has become a panzootic (animal disease occurring worldwide). Since the pathogen can be very stable in the environment, there is a suspicion that the virus could also be transmitted to domestic pig herds via feed, water and other materials such as animal bedding. So far, there is no empirical evidence for this. Based on theoretical assumptions, the European Food Safety Authority (EFSA) concluded that there is a low risk for certain feed and crops to contain ASF viruses. However, there are major uncertainties due to a lack of scientific data. Some of these knowledge gaps are now to be closed in an international research project.

The EFSA-funded research project involves the Friedrich Loeffler Institute (Federal Institute for Animal Health, FLI), the German Federal Institute for Risk Assessment (BfR) and the Swedish Statens Veterinärmedicinska Anstalt (SVA). Together with the Swedish partners, virologists from the FLI and feed experts from the BfR will investigate the stability of ASF viruses on various feeds and bedding materials under practical storage conditions.

Prior to the start of the study, BfR and FLI jointly evaluated known scientific findings on feed as a source of infection in a literature study (<https://www.vetline.de/literature-review-and-qualitative-risk-assessment-on-the-role-of-feed-materials-in-african-swine>). The study also took into account the influence of feed and bedding materials on the stability of ASF viruses. The influence of processing, transport and storage on possible contamination of feed with the ASF virus was also taken into account.

The experts concluded that for processed by-products, e.g. grains, extraction meals and compound feed, it can be assumed that ASF virus will become most likely inactivated during processing. Although recontamination with virus after the manufacturing process may occur, this scenario is assumed to be unlikely under general hygiene and HACCP principles.

However, virus transmission into domestic pig farms cannot be excluded for certain feed categories such as unprocessed, direct-fed feed materials.

The investigations as now planned in the three institutions' research project are urgently needed in order to generate further data on the influences on survival and transmission of ASF viruses during processing and storage in feed materials for domestic pigs.

Further information on African swine fever (ASF) is available on the BfR website

BfR Communication 036/202: African Swine Fever - No Hazard to Humans
<https://www.bfr.bund.de/cm/349/african-swine-fever-no-hazard-to-humans.pdf>

Frequently Asked Questions on ASF: https://www.bfr.bund.de/en/frequently_asked_questions_about_african_swine_fever_asf_-205379.html

About the BfR

The German Federal Institute for Risk Assessment (BfR) is a scientifically independent institution within the portfolio of the Federal Ministry of Food and Agriculture (BMEL) in Germany. The BfR advises the Federal Government and the States ('Laender') on questions of food, chemical and product safety. The BfR conducts its own research on topics that are closely linked to its assessment tasks.

About the FLI

As the Federal Research Institute for Animal Health, the Friedrich-Loeffler-Institut (FLI) is dedicated to the health of food-producing animals. Its central tasks are the prevention, diagnosis and control of animal diseases, the improvement of animal husbandry and nutrition, and the conservation and use of animal genetic resources.