

Part 2/2 - Ability of different matrices to transmit African swine fever virus

EFSA Panel on Animal Health and Welfare (AHAW)

Summarized by the MSHMP team

For this week we continue with the summarized results from the Panel on Animal Health and Welfare (AHAW) of the European Food Safety Authority's (EFSA) published opinion on the risk of African Swine Fever virus entering into non-affected areas of the EU. Several components were modeled as part of the overall modeling of the relative risk of ASF entering a non-affected area of the EU. Last week's science page covered the first component, the *Likelihood that a single farm delivery of a product will contain a dose of infectious ASFV, which is large enough to cause an infection in at least one pig on the farm ('q')*. In this follow up page we will look at the last two modeled components of the risk assessment.

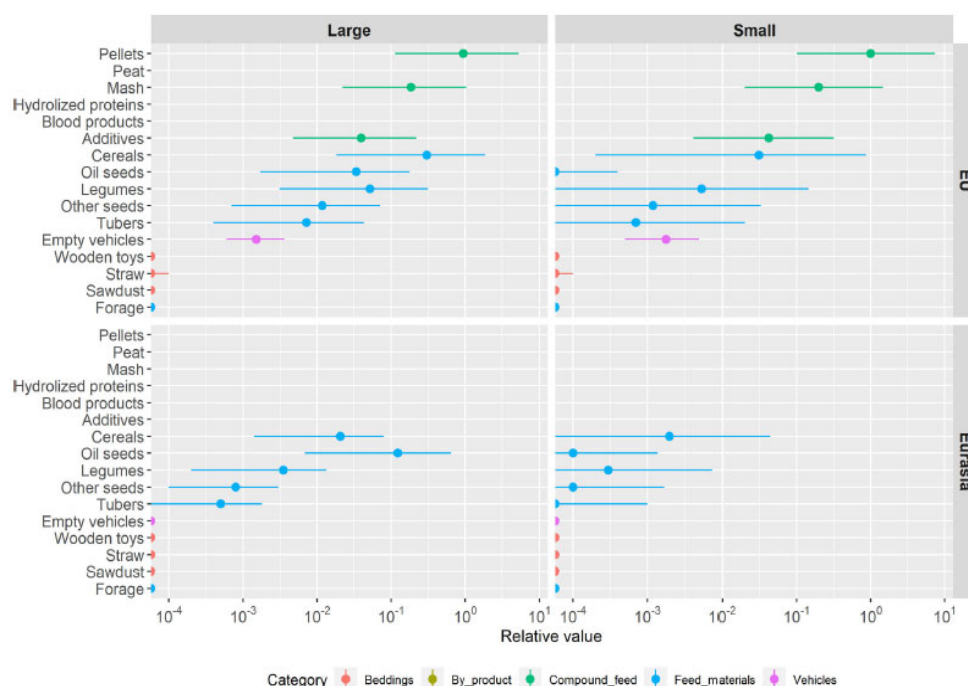
Component 2) Modelled number of potentially infected pig farms due to an importation or trade of an infected product in non-affected areas of the EU in the coming 12 months

The number of farm deliveries of a product from an affected area in the EU or Eurasia going to non-affected areas of the EU during the following 12 months was calculated. Results from models incorporating the volume of imports and trade are shown in figure 1.

Component 3) Effect of multiple species on farms on the modelled number of potentially infected pig farms in the non-affected areas of the EU.

The number of farm deliveries for a given product was adjusted for the number of multiple species on the farms, as some of the material intended for other livestock species present on a farm may also be fed to pigs. Results are not shown here as they do not substantially differ from previous results.

Figure 2: Ranking of products based on the modelled number of potentially infected pig farms in the non-affected areas of the EU caused by deliveries of the product in the coming 12 months. Mash from the EU for large-scale farms has the maximal value, and the rest of the products and strata are expressed relative to the maximum value. Products to which this pathway does not apply are shown without relative values



Overall, the lowest ranking products ranked 10,000 times lower compared to compound feed for the probability of being contaminated, processed and transported while containing at least one infectious dose sufficient to cause an infection of at least one pig on a farm.

This assessment has been undertaken for all unaffected areas of the EU considered as a whole. The hierarchy of the ranking is unlikely to change for 'q', while it could change for 'N' (number of deliveries), as in general there was little difference in rank whether a product was produced in an affected area of the EU or in Eurasia.

The Animal Health and Welfare Panel of the European Food Safety Authority's model, risk assessment, and published opinion/findings focus on European production types, management and Farm sizes. Despite the differences the EU and the US, the estimated rank (q) can be considered, and assessed with an adjusted number of deliveries (N) within the US. Results cannot be interpreted as fully applicable to the US context, but evidence pointing to the risk imposed by compound feed and contaminated vehicles suggest are relevant and helpful to the American swine industry. These findings support that having optimized biosecurity and surveillance measures on these matrices are essential.

Find the complete EFSA opinion document here: <https://efsa.onlinelibrary.wiley.com/doi/full/10.2903/j.efsa.2021.6558>