African swine fever factsheet: voice of the expert

31 October 2018 - African Swine Fever is currently spreading across Europe. The current prevention strategies are based on import controls, farmers’ awareness, biosecurity and early diagnosis. So far, they have not been able to stop the disease.

ASF is difficult to identify, as clinical signs are similar to other pig diseases. Infected wild boars transmit the ASFV to domestic pigs and the control of the disease becomes difficult. A recent research has shown that the modified virus could potentially be used as a component of a live attenuated vaccine. Live attenuated vaccines are the most promising tools in the future against ASF.

FVE asked to Nikolaus Kriz, Head of EFSA Unit for Animal and Plant Health, about the current situation of ASF in EU. Nikolaus is a veterinary surgeon from Austria with 25 years of professional experience on four continents in general practice, specialised clinics and academia. He has worked in regulatory bodies in both animal health and food safety focusing mainly on infectious diseases with a particular emphasis on vaccines and innovative products.

Considering the ASF epidemiology, what are the most appropriate preventive actions to contain the infection in wild boars’ population?

In the context of ASF, please note that there are different actions at different stages of the epidemic:

- Preventive: reduce wild boar density to reduce the probability of establishment of local population to ASFV and efforts needed for potential emergency actions (i.e. less carcass removal) following introduction;
- Following focal introduction:
  - drastic reduction in the wild boar population ahead of the ASF front (in the free population);
  - management of the infected population to keep it undisturbed and avoid aggregation of individuals and avoid any spread (e.g. short-term hunting ban of wild boar and other species or leaving crops unharvested within the affected area);
- Following the decline in the epidemic, as demonstrated through surveillance activities, active population management could be reconsidered.
Can we prevent ASF by managing/killing the wild boars’ population?

There are many ways to increase preparedness in free wild boar population, and hunting wild boar is only one measure:

- Contingency planning, clearly outlining protocols, roles and responsibilities etc in the event of an ASF incursion;
- Increased understanding of local wild boar ecology;
- Improved biosecurity and biosecurity awareness;
- Improve biosecurity and biosecurity awareness, both in domestic pig holdings and at hunting grounds;
- Collect garbage on roads/parks etc, noting the potential for both urban and sylvatic wild boar;
- Increased awareness and understanding among hunters of appropriate hunting strategies, and the rationale for this;
- Assess current approaches to hunting, seeking opportunities to improve hunting efficiency;
- Control of borders;
- Systems for early detection (wild boar passive surveillance);
- Preventive measures to reduce and stabilise wild boar density, before ASF introduction, will be beneficial both in reducing the probability of establishment of ASF following introduction, and the efforts needed for potential emergency actions (such as carcass removal) if an ASF incursion were to occur. These should primarily focus on habitat carrying capacity, including a ban on feeding and improved crop protection. Wild boar reduction may be useful, but in non-emergency situations are difficult to sustain for long periods.
- Assess current means of hunting and current hunting efforts, to seek for means of improving hunting efficiency (e.g. tailor-made advice to increase harvest rate up to 60%)

What could be the most effective measures to prevent the ASF invasion phase?

Along with the measures mentioned above, I would suggest:

- drastic reduction in the wild boar population ahead of the ASF front (in the free population);
- management of the infected population to keep it undisturbed and avoid aggregation of individuals and avoid any spread (e.g. short-term hunting ban of wild boar and other species or leaving crops unharvested within the affected area).

It looks like ASF has been transmitted through out carcass-contact. Is this a new disease transmission pattern?

Transmission of ASF virus through indirect contact is well known. The virus can remain infectious for several months in the carcasses or blood, especially with cold temperatures.

Should we expect ASF to become endemic in Europe?

This depends on the definition of ‘endemicity’. There is no proof that the virus has disappeared from some of the areas in Europe where the virus was introduced four years ago and it is still detected in
wild boar in those areas, although the incidence has decreased. For some this could be defined as an endemic situation.

On 16-17 October EFSA organised a workshop on African swine fever with 30 leading experts in the EU on African swine fever epidemiology, risk assessment and predictive modelling. The workshop aimed at focussing on modelling of distribution and density of wild boar as well as the planning for future data collection activities and risk factor analysis for ASF occurrence in wild boar and domestic pigs. The main issues at stake during the workshop were:

- Feedback on the report of EFSA’s Standing Working Group on ASF on the epidemiology of ASF in the EU (which will be published on 27/11/2018) was provided by the participants. Recommendations for the management of wild boar were agreed upon for different geographic scenarios for wild boar populations in the EU.

- The deliverables by EnetWild (European network of wildlife professionals) were presented and essential parameters from the Wild Boar Data Model WBDM for modelling distribution or density of wild boar were discussed. It is essential to keep the data collection model simple and accessible and data available and useful for as many end-users as possible.

- A way forward for future data collection activities and interaction with stakeholders/data providers was planned for and the need for a risk factor analysis for ASF occurrence in domestic pigs was discussed.

- An event report of the workshop will be published on EFSA’s website before the end of 2018.