Classical swine fever situation in wild boar in France

Background

2002: Thionville epizootic
Following the detection of a case of classical swine fever (CSF; Rostock strain) in a wild boar in the region of Thionville, Moselle department, in April 2002, France stepped up its CSF control programme – in force since October 2001 – in this department and in the neighbouring Meurthe-et-Moselle department.

Under the terms of a control plan approved by the European Commission, a 480-km² intensified surveillance zone along the border with Germany, Luxembourg and Belgium, and an adjoining 1,340 km² observation zone were established on 27 July 2002. Serological surveillance of wild boar and domestic pigs was carried out within these zones. In addition, control measures for wild boar populations and protection measures for pig farms to isolate them from any contact with wild boar were implemented.

Wild boar shot in these intervention zones and in a 5-km-wide band along the border with Belgium, Germany and Luxembourg are subjected to serological and virological tests. The carcasses of animal shot in the infected zone are destroyed.

This control strategy, based on hunting restriction measures and natural immunisation of wild boar (through contact with the field strain), has progressively reduced virus circulation.

2003: Vosges du Nord epizootic
An epizootic originating in Germany (Uelzen strain) appeared in April 2003 in the mountainous area of Vosges du Nord. On 15 April 2003, the CSF virus was isolated in a wild boar shot in Wissembourg district (Bas-Rhin department).

A control plan based on the one in Thionville was set up in the area: the same strategy was applied (two intervention zones were also defined).

Sanitary surveillance and movement control measures are also applied to domestic pigs in farms within the infected zone. Open range pig farms within the intervention zones must be equipped with electric fences to prevent any incursion by wild boar. In addition, the artificial barrier formed by the A4 motorway has been made more secure and placed under control.

Results of surveillance in 2003

In 2003, 3,806 wild boar were sampled; 13 animals were virologically positive (all in the mountainous area of the Vosges du Nord).

In the Thionville area, no cases of virologically positive wild boar have been detected since July 2002. The presence of natural (river Sarre) and artificial (A31 highway) barriers restricts natural movements of the wild boar population and helps to achieve natural immunisation. The intervention zones have not been modified since that period (see Map 1 on page 45).

In the Vosges du Nord area, the zone initially defined in June 2003 was modified after the detection of new cases of virologically positive wild boar: in
September and October 2003, out of 450 wild boar sampled in the observation zone, 5 were virologically positive, indicating a slow south-westerly extension of the infected zone in Vosges du Nord (see Map 2).

Likewise, at the end of 2003, following the detection of a virologically positive wild boar in the observation zone, the infected zone was once again extended to the west along the forested uplands, making use of existing barriers (trunk road) (see Map 3). The aim was to confine the infected zone with secure barriers. In this respect, the A4 motorway constitutes a reliable barrier, limiting the progression of wild boar.

It became apparent that although the results of the natural immunisation strategy in the Vosges du Nord area were encouraging it would not be possible to eradicate the disease in wild boar populations in this area in the short term. In particular, it was found that the seroconversion rate in wild boar was not as high as in the Thionville outbreak.

In August 2004, taking these factors into account, the French sanitary authorities decided to apply a policy based on the vaccination of wild boar in the Vosges du Nord area, according to the vaccination protocol described below. The aim was to reduce the extent of the epizootic in time and space and ultimately to eradicate the disease from the wildlife population within three years.

**Vaccination protocol**

**Vaccination zone**

The vaccination zone planned for 2004 comprises the currently infected Vosges du Nord area and an approximately 10-km-wide sanitary cordon.

It will be adjusted as the epidemiological situation evolves. In 2005 and 2006, the vaccination zone could include the whole of the Vosges du Nord intervention area (i.e. the current infected zone and observation zone), consisting of 1,222 km² of forest.

The boundaries of the zone will be delineated as follows: in the south by the A4 motorway and the Marne–Rhine canal, in the east by the Rhine, and in the west by the Houillères de la Sarre canal.

The vaccination zone is declared an infected zone.

**Vaccination campaign procedure**

A vaccination campaign consists of a double distribution of baits at an interval of 28 days. The provisional calendar for vaccination campaigns is as follows (the 2004 double campaign having already been completed):

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<th>Vaccination campaign</th>
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The vaccine used is an attenuated virus vaccine (Chinese strain). To ensure that as many groups of wild boar as possible eat the baits, a system of one or two distribution sites per 100 hectares of forest has been selected, with 40 baits being buried at each site and at each distribution.