The wild boar and classical swine fever in Latvia
Chronology
On 15th October, 2012 - one wild boar shot 5 km west from the border with Belarus, in the Šķaune parish, Dagda county found seropositive for CSF.

Epidemiological investigation of wild boar population started according to Commission Decision 2002/106/EC Chapter IV section H

Samples (serum and organs) were sent to EU Reference laboratory in Hannover and 2 wild boars were detected positive to CSF by qRT-PCR on 16th November, 2012. Latvian CSF isolates were assigned to the genotype 2.3

On 20th November 2012 Latvia notified two primary cases of classical swine fever (CSF) in wild boar close to the border with Russian Federation and Belarus.
An **infected area** along the border with Russian Federation and Belarus has been established. The area is about 20 - 50 km wide, about 460 km long and has a surface of about 9 000 km².

The area was defined based on the geographical distribution of the disease in this part of Latvia and the unknown epidemiological CSF situation in wild boar and domestic pigs on the other side of the border.
As a consequence of the positive findings in the wild boar population:

- Intensive hunting was started since 17th of November within and outside the infected area

  Hunting of wild boar is the sole practical system to obtain samples for laboratory investigations and to reduce the susceptible population

- Veterinary teams performed visits in all pig holdings (including backyard holdings)

  The inspection of the holdings includes the census of animals, clinical examinations and blood sampling for laboratory examinations
On 27 November, 2012 three backyard holdings located in the infected area were found CSF positive:

• Outbreak 1: Backyard holding with 2 pigs in the Svarinu parish, Daga county

• Outbreak 2: Backyard holding with 5 pigs in the Piedrujas parish, Kraslavas county.

• Outbreak 3: Backyard holding with 9 pigs in the Piedrujas parish, Kraslavas county.

Protection and surveillance zones around the infected holdings were established on 27th November, 2012 and measures according to Council Directive 2001/89/EC were implemented immediately.
Classical Swine Fever in wild boar in the Republic of Latvia

Protection and surveillance zones within former provisionally infected area

Outbreaks II and III

Outbreak I
Classical Swine Fever in wild boar in the Republic of Latvia

The results of the epidemiological investigation concerning the three outbreaks in domestic pigs revealed that the source of infection might have been possible contacts with meat or kitchen waste from infected wild boar since hunters were involved in backyard pig husbandry.
Classical Swine Fever in wild boar in the Republic of Latvia

All pigs (16) in the affected holdings were killed and destroyed within two days after confirmation of outbreaks.

Census of holdings and pigs and clinical investigations as well as sampling was carried out in protection and surveillance zones:

<table>
<thead>
<tr>
<th>Inspection</th>
<th>No.of holdings with pigs inspected</th>
<th>No.of pigs clinically investigated</th>
<th>No.of samples taken</th>
<th>Positive laboratory results</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>231</td>
<td>999</td>
<td>521</td>
<td>0</td>
</tr>
<tr>
<td>Second</td>
<td>215</td>
<td>1037</td>
<td>502</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>446</td>
<td>1539</td>
<td>1023</td>
<td>0</td>
</tr>
</tbody>
</table>

All measures according to Council Directive 2001/89/EC in protection and surveillance zones were finalized and zones were lifted on 10th January, 2013.
According to Article 16 of Council Directive 2001/89/EC, the CSF eradication and emergency vaccinations plan has been submitted to the European Commission:
- of the measures taken to eradicate the disease in the area defined as infected and
- of the measures applied on the holdings in that area.

Both plans were approved by Commission with Decisions 2013/90/EU and 2013/91/EU on 18 February 2013.

In addition to the infected area, a risk area has been defined for monitoring the wild boar population. The risk area is at least 10 km wide and is neighbouring the infected area.

The infected and risk areas form a buffer to avoid spreading of CSF to other parts of Latvia and to other Member States.
Surveillance of holdings within the infected area:

Regarding domestic pig population, the infected area is typical backyard type belonging to a remote region with a low animal density not being involved in industrialized animal production.

In the infected area 21,992 pigs in 3,273 holdings (95% backyards).

On 8th February, 2013 all inspections were completed.

<table>
<thead>
<tr>
<th>No. of holdings inspected</th>
<th>No. of pigs inspected</th>
<th>No. of holdings sampled</th>
<th>No. of pigs tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>3273</td>
<td>21,992</td>
<td>3,024</td>
<td>8,014</td>
</tr>
</tbody>
</table>
Wild boar vaccination programme
Infected area is about 20-50 km wide, about 460 km long and has a surface of about 9 000 km².

Vaccination area is a part of infected area, defined based on the geographical distribution of the CSF in wild boars, surface ~ 5 000 km².

Risk area – 5 000 km².
Classical Swine Fever in wild boar in the Republic of Latvia

Vaccination area:
- ~ 5 000 km²
- ~ 6 000 wild boar population
- ~ 3 000 km² hunting area
- 470 wild boar feeding places ;1/6 km²
- 40 baits per place

Spring vaccination double campaign:
- 3-4 May and 30-31 May, 2013.
- Hunting prohibited 3-5 days before and after vaccination
- **36 835** oral vaccine baits distributed

EU co-financing up to 100%
Classical Swine Fever in wild boar in the Republic of Latvia

Vaccination campaign

based on:
Commission Implementing Decision 2013/90/EU of 18 February 2013
Classical Swine Fever in wild boar in the Republic of Latvia

Spring vaccination campaign
Vaccination campaigns in summer (July-August) and in autumn (October - November), 2013.
CSF surveillance results (infected area)

Tested /infected wild boars within the infected area (1.10.2012. - 1.05.2013.)

During CSF surveillance since 1.10.2012 till 1.05.2013. in infected area tested 1872 wild boars.
- Seropositive 154 (9.7 %)
- RT-PCR positive 44 (2.8 %)

During CSF surveillance since 1.01.2013 till 1.05.2013. in infected area tested 1311 wild boars.
- Seropositive 96 (7.3 %)
- RT-PCR positive 16 (1.2 %)
CSF virus surveillance
(Oct 2012- Oct 2013)

Summary: 2627 wild boar hunted, 72 PCR positives - (2.7%)
Virus positive wild boar detected (May-October, 2013)

All virus positive cases were detected within vaccination area!!!
Vaccination area

The efficiency of wild boar vaccination against CSF 1.05.2013 to 25.10.2013 in the vaccination area 414 wild boars have been tested:

- Seropositive 168 (41.0 %)
- RT-PCR positive 28 (6.7 %)
Number of wild boars tested within the vaccination area by age groups (May-Oct, 2013)

<table>
<thead>
<tr>
<th>Age</th>
<th>Number of wild boars tested in vaccination area</th>
<th>Number of seropositive animals</th>
<th>Virus positive animals (PCR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 1</td>
<td>108</td>
<td>34</td>
<td>5</td>
</tr>
<tr>
<td>1 - 2</td>
<td>113</td>
<td>45</td>
<td>9</td>
</tr>
<tr>
<td>2 - &gt;</td>
<td>180</td>
<td>83</td>
<td>13</td>
</tr>
<tr>
<td>Age not indicated</td>
<td>13</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>
Cooperation with Belarus and Russia
Vaccination buffer zone in BELARUS

Vaccination with live attenuated C strain vaccine
Vaccination area 8 500 km²
Wild boar population > 5 000
Hunting area ~ 3 000 km²
Feeding places ~ 340

2 double campaigns (September - November) in 2013
(initiated in a beginning of September)

The vaccine baits will be distributed manually at designated wild boar feeding places.

Estimated number of baits:
-25 000 per one campaign
-150 000 per year
The aim - Vaccination buffer zone in Russia (Pskov oblast)

Discussions ongoing:

- Meeting in Riga (26 September, 2013)
- Meeting in Silene (7-8 November, 2013)
Thank you for your attention

Acknowledgements:

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NRL – Institute BIOR