**Lumpy Skin Disease in Greece**

*Update Situation as at 7 October 2015*

Sotiria-Eleni ANTONIOU, Animal Health Directorate /Dept. of Infectious Diseases
Lumpy Skin Disease in Greece (Evros) – First Outbreaks

- Suspicion of LSD reported, in two holdings (beef cattle) of the Evros Prefecture within the Evros Delta National Park on 18 August 2015.

- Clinical examination of affected cattle (nodules in the neck and elsewhere in the body + respiratory symptoms). Collection of samples and dispatch to the competent state laboratory on 18 August 2015.

- Results of real-time PCR detecting capripoxviruses (among which LSD virus) came positive and further testing using a specific conventional PCR to exclude Sheep Pox confirmed the disease (final results available on 20 Aug 2015).

- Both outbreaks with a small number of affected cattle, non ulcerated lesions. No history of recent animal movements e.t.c. Both within ≈ 15 km from the closest confirmed LSD outbreak in Turkey (ADNS)

- Both outbreaks stamped out (75 + 72 animals)
Lumpy Skin Disease in Greece (Evros) – Situation on 7/09/2015 (last PAFF)

Initial LSD outbreaks (Greece 21/8/2015)
New LSD outbreaks (Greece 28/8/2015)
New LSD outbreaks (Greece 4/9/2015)
New LSD outbreaks (Turkey 20/8/2015)

Limits of Protection zone
Limits of Surveillance zone

7/9/2015:
24 confirmed outbreaks
17 additional suspicions awaiting confirmation

1,819 cattle destroyed
Morbidity = 8.9%  Mortality = 0.3%
Lumpy Skin Disease in Greece (Evros) – Measures in place

Control Measures in progress

Measures described in Directive 92/119/EEC
- Surveillance & Protection zones
- Stamping out
- Movement Controls
- Sanitary Burial on the spot etc

Measures described in Commission’s Implementing Decision (EU) 2015/1500

&

as of 5 September 2015

- Emergency vaccination of all susceptible species of the Evros prefecture added also to control measures
Why Vaccination ???

- area that historically suffers from animal diseases crises (e.g. Sheep Pox in 2013-2014, BT 2014 e.t.c)

- financial + social issues because of devastating effects for the local farming industry in the area

- high costs of stamping out

- unclear if the stamping out policy alone is sufficient to stop disease spread

- the spread of the disease is higher than expected (according to bibliography)
Lumpy Skin Disease in Greece (Evros) – Vaccination

**Vaccination Programme**

- Homologous live attenuated virus vaccine (Neethling strain): “*Lumpy Skin Disease Vaccine for Cattle*”, Onderstepoort Biological Products
- Compulsory vaccination of all susceptible species (cattle, buffaloes) within the Evros prefecture
- 28 days standstill of vaccinated animals (3 weeks to full disease protection +1 week to cover the maximum disease incubation period)
- Vaccination from age 0 according to the instructions (animals from unvaccinated cattle)
- Annual booster vaccination
- The whole procedure of vaccination is under the control of the official veterinary authorities (delivery at the airport, storage, distribution, vaccination, destroy of residual quantities)
- Electronic application (online database) has been developed for registration of vaccinated animals and farms (connected with central data base of Reg. 1760/2000)
- Official Veterinarians (about 24) including staff from other regional units mobilized in order to help with vaccination
Lumpy Skin Disease in Greece (Evros): Outbreaks in N. Evros on 16/9/2015

Emergency Vaccination launched since 5/9/2015 for the entire Prefecture
16, 18 September Confirmed Outbreaks in N. Evros
Lumpy Skin Disease in Greece – Vaccination in Regional Unit of Evros

<table>
<thead>
<tr>
<th>Vaccination Campaign in RU of EVROS:</th>
<th>Completed on 2/10/2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date of started Vaccination</strong></td>
<td><strong>Date of finishing Vaccination</strong></td>
</tr>
<tr>
<td>Protection Zone S. Evros</td>
<td>5/09/2015</td>
</tr>
<tr>
<td>Surveillance Zone S. Evros</td>
<td>5/09/2015</td>
</tr>
<tr>
<td>Protection Zone N. Evros</td>
<td>8/09/2015</td>
</tr>
<tr>
<td>Surveillance Zone N. Evros</td>
<td>8/09/2015</td>
</tr>
<tr>
<td>Rest Area of Evros</td>
<td>8/09/2015</td>
</tr>
</tbody>
</table>

Total vaccinated animals ≈ 14,000
Lumpy Skin Disease in Greece: Outbreak in Regional Unit of Xanthi 25/9/2015

Regional Unit of Xanthi
24/09/2015 Suspicion
25/09/2015 Confirmation
N. Kessani 1 dairy herd (75 animals)

Distance ≃ 90 Km
Lumpy Skin Disease in Greece – 25/09/2015 Outbreak in Xanthi

Control Measures Implemented in the entire Prefectures of Xanthi and Rodopi

- **Xanthi**
  Same measures as Evros (Dir 92/119 & Dec (EU) 2015/1.500)

- **Rodopi**
  Measures described in Commission’s Implementing Decision (EU) 2015/1500

- **Why Rodopi too??**
  The surveillance Zone of Xanthi extended also to Rodopi. Rodopi lies between 2 affected prefectures

- **Emergency vaccination** of cattle of the entire prefectures of Xanthi and Rodopi, as a supplement to control measures
### Lumpy Skin Disease in Greece – Vaccination in Regional Unit of Xanthi

<table>
<thead>
<tr>
<th>Vaccination in Xanthi: in progress</th>
<th>Date of started Vaccination</th>
<th>Date of finishing Vaccination</th>
<th>% Vaccinated Animals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection Zone</td>
<td>26/9/2015</td>
<td>28/09/2015</td>
<td>100 %</td>
</tr>
<tr>
<td>Surveillance Zone</td>
<td>26/9/2015</td>
<td>28/09/2015</td>
<td>100 %</td>
</tr>
<tr>
<td>Rest Area of Prefecture</td>
<td>26/09/2015</td>
<td>in progress</td>
<td>40 %</td>
</tr>
</tbody>
</table>

Estimated time to be completed: 2nd half of October 2015 or 1st half of November 2015

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*Lumpy Skin Disease in Greece – Update (PAFF Committee, Brussels 7-8 Octob 2015)*
Lumpy Skin Disease in Greece – Vaccination in Regional Unit of Rodopi

<table>
<thead>
<tr>
<th>Vaccination in Rodopi : In progress</th>
<th>Date of started Vaccination</th>
<th>Date of finishing Vaccination</th>
<th>% Vaccinated Animals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surveillance Zone (outbreak of Xanthi)</td>
<td>26/09/2015</td>
<td>26/09/2015</td>
<td>100 %</td>
</tr>
<tr>
<td>Rest Area of Prefecture</td>
<td>26/09/2015</td>
<td>in progress</td>
<td>12 %</td>
</tr>
</tbody>
</table>

Estimated time to be completed: 2nd half of October 2015 or 1st half of November 2015
Lumpy Skin Disease in Greece – 1/10/2015 Outbreak in Regional unit of Kavala

Regional Unit Kavala
28/09/2015 Suspicion
1/10/2015 Confirmation

**Xaideuto** 1 dairy herd (75 animals)
Lumpy Skin Disease in Greece – 1/10/2015 Outbreak in Kavala

Control Measures Implemented in the entire Prefectures of Kavala (Same as Xanthi & Evros)

- Same measures as Evros (Dir 92/119 & Dec (EU) 2015/1.500)

- Emergency vaccination of cattle of the entire prefecture of Kavala, as a supplement to control measures
## Vaccination in Kavala: in progress

<table>
<thead>
<tr>
<th>Protection Zone</th>
<th>Date of started Vaccination</th>
<th>Date of finishing Vaccination</th>
<th>% Vaccinated Animals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Surveillance Zone</strong></td>
<td>1/10/2015</td>
<td>4/10/2015</td>
<td>100 %</td>
</tr>
<tr>
<td><strong>Rest of the Prefecture</strong></td>
<td>1/10/2015</td>
<td>In progress</td>
<td>5%</td>
</tr>
</tbody>
</table>

Estimated time 2nd half of October 2015 or 1st half of November 2015

*the animals had been killed*
61 Confirmed Outbreaks:
- 55 South Evros
- 1 Xanthi
- 3 North Evros
- 1 Kavala
- 1 Limnos Island (confirmed 7/10/2015)

Suspitions:
- 3 awaiting confirmation in S. Evros
- 3 suspicions in Xanthi within the surveillance zone of Kavala

Total number of culled/destroyed animals: 4,060

Number of Vaccinated Animals: 31,060
Lumpy Skin Disease in Greece – An overview

- Mortality: 0.19%
- Morbidity: 9.2%
- Only recent nodules have been found, no ulcerated LSD lesions so far
- Rapid LSD spread
  within the animals of the same holding
  within the holdings of the same area (high density)
- Already delivered 34,500 Vaccines
  Ordered: 56,000 (delivery within the following days)
5 Restricted Areas (Dec 2015/1500) & Emergency Vaccination Areas

Kavala Regional Unit
Xanthi Regional Unit
Rodopi Regional Unit
Evros Regional Unit
Thassos Island
Samothraki Island
Limnos Regional Unit
Lumpy Skin Disease in Greece – An overview

- No animal movements (legal or illegal) have been identified so far between Regional Units
- Free or semi free grazing cattle, mostly beef cattle
- Similar environmental conditions: close or within wetlands
  - N. Evros: close to Evros river
  - S. Evros: within wetland of Evros Delta river meets the sea
  - Xanthi: close to Lake Vistonida (lake and lagoon)
  - Kavala: within Delta of river Nestos
- High temperatures and Humidity
- High population of a variety of vectors (mosquitoes, flies, ticks)
- Hosting a variety of populations of wild birds
Acknowledgements

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Lumpy Skin Disease in Greece – Update (PAFF Committee, Brussels 7-8 Octob 2015)
Thanks for your attention !!!