FAO Lumpy Skin Disease projects overview

Daniel Beltran-Alcrudo, Animal Health Officer
FAO Regional Office for Europe and Central Asia, Hungary
Previous FAO activities on LSD

• Publications
• Capacity building
• Expert meetings

Publications – Early warning messages

empres watch on LSD:

• November 2013 - LSD in the Middle East
• September 2015 - LSD in Europe
Publications: Coming soon

- EMPRES 360 Monograph on LSD in the Region
- FAO Position on the sustainable prevention, control and elimination of Lumpy Skin Disease, particularly in Eastern Europe and the Balkans

Capacity building

- **Webinar with EuFMD on LSD vaccination** with the participation of several experts from Jordan, Israel and UK April 2015
- **Sub-regional workshop LSD prevention and control: a new challenge for European countries** under GF-TADs Europe, Tbilisi, Georgia, 11-12 November 2015

  ✓ Participants: Georgia, Armenia, Azerbaijan, Russian Federation, Belarus and Ukraine
  ✓ Experts: Israel; FAO; EC Commission, DG SANTE; Pirbright Institute (UK), OIE Reference Laboratory on LSD
  ✓ LSD epidemiology, surveillance, control, vaccination, networking, sharing experience on LSD control
Capacity building

EuFMD Practical training on vector transmissible animal diseases – from theory to practice (with focus on LSD)

- Participants: Albania, Greece, FYR of Macedonia, Kosovo, Serbia and Bulgaria
- 31 May-3 June 2016, Stara Zagora, Bulgaria
- Lectures on:
  - LSD vaccines
  - Israeli experience with LSD
  - vector surveillance & taxonomy
- Practical sessions on:
  - vectors trapping systems, vector traps used, best places for vector traps locations, observation on the field
  - entomological investigation of the trapped vectors, differential diagnosis of the trapped species, samples preparation for the laboratory investigation, vector species identification

The ad-hoc LSD expert meeting

- 25 July 2016, Belgrade, Serbia
- Organized upon request from CVOs from central and south Europe
- The following topics were discussed to inform revision of existing legislation:
  1. Review and rank the potential ways that LSD virus could be transmitted from one infected holding to another, from the point of infection of animals to their carcass disposal on the site.
  2. Review current measures, and propose updated guidance, to be taken after confirmation of LSD on a holding, including the question of alternatives to on-site burial.
  3. Review the proposals for modification to measures to be taken after confirmation of LSD in animals recently vaccinated against LSDV.
  4. Review the proposals for (a) modification to measures relating to restocking of holdings depopulated after LSDV, and (b) movement of animals and animal products after vaccination.
  5. Identification of likely scenarios for spread of infection within the Balkan and Central European region and impact and likely duration of control options, that could be assisted by modelling and other studies.
  6. Identify essential information that need to be collected and shared by affected countries, particularly to assist modelling of spread and impact of measures, and to enable review of the effectiveness of currently used vaccines.

Standing Group of Experts on Lumpy Skin Disease in South-East Europe

- Launched on 4-5 July 2016 under the GF-TADs umbrella
- Aims to build up a closer cooperation among LSD-affected countries, thereby addressing the disease in a more collaborative and harmonised manner across the region.
- Builds on the successful experience of a similar mechanism for African swine fever in the Baltic and Eastern Europe region (2014)

Members:
- Affected and at-risk countries: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the former Yugoslav Republic of Macedonia, Greece, Hungary, Israel, Kosovo, Montenegro, Romania, Serbia, Slovenia, Turkey and Russian Federation
- Organisations: EC - OIE - FAO
- Experts: designated on an ad hoc basis

Meetings:
- Kick off meeting (SGE LSD1, 5-6 July 2016, Brussels / Belgium)
- SGE LSD2 (21 September 2016, Lisbon / Portugal)
- SGE LSD3 (12-13 December 2016, Istanbul / Turkey)

Overview of current projects

Three complementary projects on LSD assistance to the Balkans and the Caucasus running in parallel:

- **OSRO/RER/601/HUN**: Regional workshops for lumpy skin disease (LSD) and field manual on LSD in Europe
  - Beneficiaries: The Balkans (Albania, Bosnia and Herzegovina, Croatia, FYR Macedonia, Montenegro, Romania, Serbia and Kosovo)

- **UTF/GEO/006/GEO**: On-demand assistance for LSD risk mitigation and control in Georgia
  - Beneficiaries: Georgia

- **TCP/RER/643351**: Improving the understanding, awareness, prevention and control of lumpy skin disease in the Balkans
  - Beneficiaries: Balkans + Caucasus (Georgia, Armenia and Azerbaijan) and Ukraine

External technical experts: Eeva Tupporainen, Tsviatko Alexandrov (BFSA), Alberto Allepuz (UAB), and Oran Erster (KVI)
Activity 1.1. Regional workshop on lumpy LSD prevention and control strategies
7-9 March 2017, Budapest, Hungary

Participants:
- Vet services from recipient countries in the Balkans (Albania, Bosnia Herzegovina, FYR of Macedonia, Kosovo and Serbia), Caucasus (Georgia, Armenia and Azerbaijan), and Ukraine
- Vet services from other infected and at-risk countries: Bulgaria, Hungary, Romania, the Russian Federation and Turkey
- External experts and beef and dairy cattle associations.

Objectives:
- Provide an open forum for countries to share their experiences, improve their knowledge, and discuss the most challenging issues faced with the aid of experts
- Highly interactive thematic sessions moderated by experts on:
  - Contingency planning, risk management and communication;
  - Awareness campaigns; Animal movement control;
  - Insect control and environmental impact;
  - Diagnostic tools and vaccination strategies;
  - Stamping out strategies.
- Present and gather feedback on the LSD field Manual
- Set up frame and main components for a future project on LSD prevention and control in the region

Activity 1.2 FAO’s Field Manual on LSD (Europe-focused)

- Developed by experts in LSD and field implementation
- Part of the EMPRES series of manuals
- Audience: Private and official veterinarians (in the field and slaughterhouses), para-professionals and laboratory diagnosticians
- Contents: Basic epidemiology, clinical recognition, sampling and shipping of specimens, and basic notions on the prevention and control of the disease.
- To be translated, printed and distributed in the region (paper and electronic copies)

Timeline:
- Currently under review
- Feedback from affected and at-risk countries in the region (Budapest meeting)
- Edition
- Translation
- Printing before the next vector season starts
On-demand assistance for LSD risk mitigation and control in Georgia
NTE: 31 March 2017

Ongoing:
• Assessment of the situation, meeting with all stakeholders, and provide technical guidance on LSD control plan in Georgia.
• Training on LSD epidemiology, risk based surveillance, outbreak investigation and control.
• Develop, print and distribute information/awareness materials (posters and leaflets)

Coming soon:
• Training provided on LSD laboratory diagnosis (in March 2017)

Output 1: Assessment of the risk and economic cost of LSD entry, spread and establishment
• Activity 1.1: Analysis of outbreak data from the Caucasus and surrounding countries to assess the epidemiological situation, understand spread patterns and risk factors, and identify spread pathways;
• Activity 1.2: Estimate the financial losses of LSD (LSD outbreaks and control costs) and Perform a cost-benefit analysis for different LSD outbreak control options;

Output 2: Awareness raising for the prevention of LSD entry adapted to national needs
• Activity 2.1. Workshop to develop country-specific awareness strategies, which allow the reaching of all relevant stakeholders (private and public veterinarians, farmers, middlemen, etc.).
• Activity 2.2. Awareness and technical materials (e.g. FAO LSD Manual) on LSD adapted to the different stakeholder groups, translated into relevant languages in the region, and disseminated.

Output 3: Development of a project concept note for LSD prevention and control
• Activity 3.1: Workshop with veterinary services in the region to 1) present the results from the analysis under Output 1; 2) identify the existing control gaps, as well as the actions needed to stop LSD spread;
• Activity 3.2: Based on 3.1, a concept note and regional project document will be prepared for donor funding to assist countries in preventing, controlling and eventually eradicating LSD in the region.
• Close monitoring through exiting tools (EMPRES-i)
• Regional Approach - Regional response plan
• Risk assessment for at risk countries
• Information sharing: lessons learnt and best practices
• Foster cooperation of all stakeholders: farmers, traders, processors, veterinarians, etc.
• Raising awareness
• Harmonization of vaccination protocols
• Harmonization of other preventive and control measures
• Piloting new approaches for risk mitigation and outbreak control
## Agenda – Day 2

### Day 2

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
</table>
| 9:00-10:45 | Session 3: Animal movement control  
  - Effective control of animal movements, including nomadic and transhumance farming systems  
  - Animal identification and tracing systems  
  - Group exercise: how to control animals movements in different scenarios |
| 10:45-11:00 | Coffee Break (provided) |
| 11:00-12:30 | Session 4: Insect control and environmental impact  
  - Potential vector species for LSD  
  - Efficacy of different vector control measures and related environmental and public health risks  
  - Mechanical/biological vectors and methods to investigate the role of vectors |
| 12:30-13:30 | Lunch (provided) |
| 13:30-15:30 | Session 5: Diagnostic tools and vaccination strategies  
  - Diagnostic tools to detect Capripox virus infections and DIVA strategy (30 min)  
  - Vaccines against LSDV, adverse reactions and vaccination strategies (30 min)  
  - Challenge studies for evaluation of efficacy of currently used vaccines (30 min)  
  - Group discussion: How to harmonize regional vaccination |
| 15:00-15:45 | Coffee (provided) |
| 15:45-17:30 | Session 6: Stamping out strategies  
  - Carrying out stamping-out procedure  
  - Safe on- and off-site disposal of carcasses considering environmental and public health aspects  
  - Decontamination of the premises, personnel, vehicles, environment  
  - Group exercise: biosecurity and disinfection at farm level |

## Agenda – Day 3

### Day 3

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
</table>
| 9:00-11:00 | Presentation of awareness strategies by countries (120 min)  
  Tsviatko Alexandrov, FAO |
| 11:00-11:15 | Coffee (provided) |
| 11:15-13:00 | Open discussion on components for a regional project (50 min)  
  Presentation and feedback on LSD field Manual (45 min)  
  Closure of the workshop  
  Eeva Tuppurainen, FAO |
| 13:00-14:00 | Lunch (provided) |
Thanks for your attention