



# Mission of the Community Veterinary Emergency Team to Serbia

SCOPE of the mission: Lumpy skin disease in  
cattle in Serbia

(6<sup>th</sup> of June 2016)

# Terms of Reference

- The expert should provide assistance to the **scientific, technical, managerial and practical** on-the-spot aspects required for the development and refinement of the **control strategy** for lumpy skin disease (LSD) **under local conditions** taking into account sound **scientific basis** (including the recent EFSA report on LSD) and **within the framework of Council Directive 92/119/EEC**.
- The expert should **report** exclusively to the **Commission services** and the **competent authorities of Serbia**. A final report should include **recommendations** to the competent authorities.
- An expert of this team should report to the Commission and the Member States in the framework of the Standing Committee on Plants, Animals, Food and Feed.
- The expert shall operate under the provisions laid down in Commission Decision 2007/142/EC and in particular on the basis of the standard rules of procedure for groups of experts.

# **CVET experts and DG SANTE officials**

- Dr Eeva Tuppurainen – team leader, FI
- Dr Pip Beard- The Pirbright Institute, UK
- Commission Representative: Dr Dimitrios Dilaveris (DG SANTE)

# Fact finding in Serbia

- On 6<sup>th</sup> of June meeting with the local veterinary authorities at the Ministry of Agriculture and Environmental Protection, Veterinary Directorate
- Total number of cattle in Serbia is 958.097
- General contingency plan is in place and applied to LSD
- Strategic level: the Ministry of Agriculture and Environmental Protection headed by the Chief Veterinary Officer
- Tactical level: the National Crisis Centre and the national reference laboratory
- Operational level: 12 regional centres
- The number of official veterinarians is 252
- Use of a live LSD vaccine must be authorized by the Agency of Medicine and Medical Devices, Serbia

# Transboundary cattle movements

- Control of these animal movements is challenging
- In the mountainous border regions with neighbouring countries, grazing cattle from both sides may sometimes cross the borders and mixing of herds occurs
- Transhumance farming is practised in the border regions
- Trade of cattle across the borders occurs although it is officially banned

# On 6<sup>th</sup> of June the first LSD outbreak was reported in Bujanovac Serbia





# Visit to the national reference laboratory for LSDV in Belgrade

- Three regional laboratories have capacity to carry out LSDV diagnostics
- Appointed reference laboratory in Belgrade, the other labs are in Novisad and Kradjevo
- Belgrade lab works at BSL 2
- Three veterinarians and three technicians are available and competent in molecular methods, if required staff from the other departments can assist
- One real-time PCR and three conventional PCR thermocyclers
- Gel-based PCR in place and setting up a real-time PCR method was in progress

# Laboratory capacity in Belgrade

- Sample testing is available during evenings, weekends and holidays
- Samples arrive to the labs within the day of collection
- Test results available within the same or following day
- Tests are carried out according to good laboratory practice
- Manual DNA extraction is the bottleneck



## Laboratory capacity in Belgrade

- No positive LSDV control was available for PCRs – a safe alternative would be to extract DNA from the LSD vaccine
- Molecular DIVA assay is not yet in place -sequencing by commercial companies, recently published DIVA PCR method and a commercially available PCR kit (currently under validation by three laboratories)
- No virus isolation or serological assays for LSD available

## Laboratory needs include

- Materials and reagents: DNA extraction and PCR mastermix kits
- A real-time PCR thermocycler and an automated DNA extraction robot
- Freezers (-20 and -80 °C) for sample storage
- Assistance in optimising and validating PCR-based diagnostic tests was offered by the Pirbright Institute

# Recommendations (1/3)

- Regional rather than national approach is recommended, including exchange of information, coordination and harmonization of the control and eradication programs
- Swift mass vaccination in affected regions, aiming 100% vaccination coverage – if ring-vaccinations are used, no unvaccinated farms/animals should be left within the vaccinated regions
- Preventive vaccination campaigns should be carried out at the buffer zones between affected and disease-free countries
- Enforced awareness campaigns amongst field and abattoir veterinarians, farmers, animal care staff, cattle traders, slaughterhouse staff and drivers of cattle transport vehicles

## Recommendations (2/3)

- Radius of protection and surveillance zones should be increased to 25 to 50 km
- Strict movement restrictions
- Movement of vaccinated cattle from infected regions to a slaughterhouse located in disease-free area is not recommended - the nearest slaughterhouse within the restricted region should always be preferred
- Only healthy vaccinated animals are safe to move after the immunity has been fully established (28 days post-vaccination)
- In case it is necessary to use an abattoir at the disease-free region, cattle should be certified by a veterinarian to be free of clinical signs of LSDV on the day of dispatch at the farm of origin

## Recommendations (3/3)

- Animal traders, their animal facilities and cattle collection/resting stations should be registered
- Diagnostic capacity at the NRL need to be strengthened
- Enforced biosecurity measure at a farm level should be implemented throughout the country
- Detailed epidemiological surveys should be conducted
- Active and passive disease surveillance in the country should be enforced
- In order to detect unnoticed LSD outbreaks clinical and laboratory surveillance should be commenced at the border regions with the neighbouring disease-free countries



# Thank you for your attention!

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