Purchase, short term storage and delivery of vaccines in the face of an outbreak

Case study

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Legal basis for vaccination against LSD

2. EU legislation
3. National legislation
Legal basis for vaccination against LSD

Within the EU, the vaccination against LSD only:
- in the event of serious epizootic diseases;
- as a supplement to control measures taken;
- subject of prior authorization by the Commission (the decision by EC, in cooperation with MCs).

All rules not specified in the EU legislative acts are arranged according to the Standards of Terrestrial Animal Health Code of the OIE.

Vaccination approach and strategy

The example of Bulgaria

Main steps:
1. Decision to implement a vaccination strategy
2. Vaccine type to be used
3. Drafting a vaccination plan
4. Submission of the vaccination plan for approval by European Commission
1. Decision to implement a vaccination strategy

Factors regarding the affected zone:
- Evolution of the disease in the country; and neighbors: fast spreading; incursion in northern regions;
- growing number of regions affected; farms/ outbreaks
- The meteorological conditions (the presence, distribution and type of vectors) – period of season vector activity

![Map showing density of LSD confirmed outbreaks](image)

Evaluation of financial loses

- Control measures applied (different scenarios, possibility to eradicate the disease without a vaccination);
- an evaluation of the consequences of enforced movement restriction, ban for trade, export due to disease vs. the consequences of the special rules/restriction that to be enforced following the vaccination
- direct/indirect cost

- Stamping out with vaccination considered to be the most effective options for controlling the spread of LSD!
2. Vaccine type to be used

Factors to be examined – regarding the vaccination strategy

- available vaccine on the market
- authorization for EU market
- the characteristics of each vaccine used which vaccines ensure a successful prevention?
- safety and efficacy of the vaccines?
- shelf life?

Which vaccines?
- Experience and lessons learned by other affected countries.
- homology vaccines provide better immunity (EFSA ‘assessment)
- Purchasing procedures, price, doses available?

subject of prior authorization by European Commission;

3. Drafting a vaccination plan

Pre-factors considered regarding the vaccination strategy

- Density of bovine population -
- Animal husbandry (outdoor, commercial farms, pasture), biosecurity of farms
- Movement – inside the country (slaughtering, pastures, seasonal movement, etc.), trade, export

- 80 % of farms are backyards, without biosecurity measures applied
- Seasonal cattle migration only short distance pasture movements in spring-autumn
- Movement mainly for direct slaughter

<table>
<thead>
<tr>
<th>Type of farming</th>
<th>Dairy</th>
<th>Beef</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle population</td>
<td>364 319</td>
<td>414 545</td>
<td>778 864</td>
</tr>
<tr>
<td>Small holdings</td>
<td>35 288</td>
<td>19001</td>
<td>111295</td>
</tr>
<tr>
<td>Farms</td>
<td>46754</td>
<td>31169</td>
<td>77923</td>
</tr>
</tbody>
</table>
Pre-factors considered regarding the vaccination strategy (2)

- the areas in which vaccination may or must be carried out (ring vaccination, blanket, only regions, etc)
- the duration of the vaccination campaign

Main goal – to achieve sufficient herd immunity (at 80% coverage) as soon as possible

Consideration on:
- the personal capability - staff needed to be involved (only official vets; private vets employed)
- financial recourses needed
- slaughter sites to be established in the vaccinated areas – due to the special rules and movement restriction that will be imposed

Pre-factors considered regarding the vaccination strategy (3)

- tender procedure for purchasing the sufficient number of vaccine doses;
- distribution;
- storage facilities.

Logistics

Map – two main facilities (storage vaccine in specified conditions)
Pre-factors considered regarding the vaccination strategy (4)

Procedures for supervision of the use of the vaccines/and reporting
- Daily/weekly report by regions
- Entering data in central database and its verification

Logistics
2016 Vaccination strategy in Bulgaria implemented:

- **1st vaccination round** / 28 Apr – 05 May/
  - **Ring vaccination** territory where LSD was confirmed and 20 km around - 150 000 doses OBP / from EU bank (Neetling strain) around the LSD outbreaks at that time;

- **2nd vaccination round**: /19 May – 5 June/
  - expanding the regions covered by vaccination - High risk areas - 275 000 doses Intervet (SIS type) used for the rest of South, North-western areas of Bulgaria;

- **3rd vaccination round**: 10 June – 15 July – expanding to the whole territory of the country - 350 000 doses OBP used for the rest of Bulgaria; **100% vaccine coverage**

2017 Vaccination strategy in Bulgaria

According to:
- LSD situation in 2016, neighbor countries’ situation, vaccination plan status
- To maintain the herd immunity and necessity to perform revaccination in BG
- Seasonal activity of the vectors
- Possibility for purchasing vaccine doses

**December 2016 - March 2017** - 97150 OBP vaccine doses – newborn, traded bovines
**20 April – 30 May** - 207 500 vaccine doses - Lumpyvax;

**Outcomes expected** - 95-99% vaccine coverage in the specified regions
Thank you!

LSD outbreaks in 2017 (Source: ADNS)