



Food and Agriculture Organization
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Measures in case of LSD & BT the case of Bulgaria

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Lumpy skin disease and bluetongue training of trainers in FYR of Macedonia

Skopje, 13-14 September 2017



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Preventive and control measures for an effective control of Lumpy Skin Disease



The experience of Bulgaria

Lumpy skin disease and bluetongue training of trainers in FYR of Macedonia

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Introduction

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- ✓ Lumpy skin disease (LSD) is a viral disease of cattle caused by a *Capripoxvirus*; it is characterized by fever, nodules on the skin, and it may lead to severe economic losses, especially when introduced into naive population.
- ✓ LSD affects cattle and is transmitted by blood-feeding insects, such as certain species of flies and mosquitoes, or ticks. The virus could be transmitted also by direct contact, contaminated feed, water and equipment.


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- ✓ Originally affecting cattle across Africa, the disease has spread outside the continent in late 80's when it made incursion into the Middle East. Further LSD outbreaks were registered in Israel and Lebanon in 2012–2013 and most recently (2013–2016) epizootics in Egypt, Bahrain, Kuwait, Oman, Yemen, the West Bank, Lebanon, Jordan, Iran, Iraq, Syria, Saudi Arabia, Turkey, Cyprus, Greece, the Balkans, Kazakhstan, and the Russian Federation were reported.
- ✓ To control the current LSD epidemic in the European Union, the competent authorities of the affected Member States are currently implementing a total stamping-out policy of the affected holdings (stamping out the whole herd after detection of an infected case) coupled with vaccination using live homologous vaccines.

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Measures before the LSD epidemics in 2016

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- ✓ Feb 2015: Mission to Adana and Hatay for 3 experts from BG to learn more about LSD.
- ✓ Massive trainings and awareness campaigns for vets and farmers in 2015



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Measures under Orders РД 11-1054/22.06.2015 and 11-1388/20.08.2015

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	2015 outbreaks in 2015	LSD outbreaks in 2014	2015 outbreaks in 2015 (by 05.08.2015)
Bulgaria	18	17	18
Greece	18	17	75 (first outbreak reported on 04.08.2015)
Turkey	18	17	200



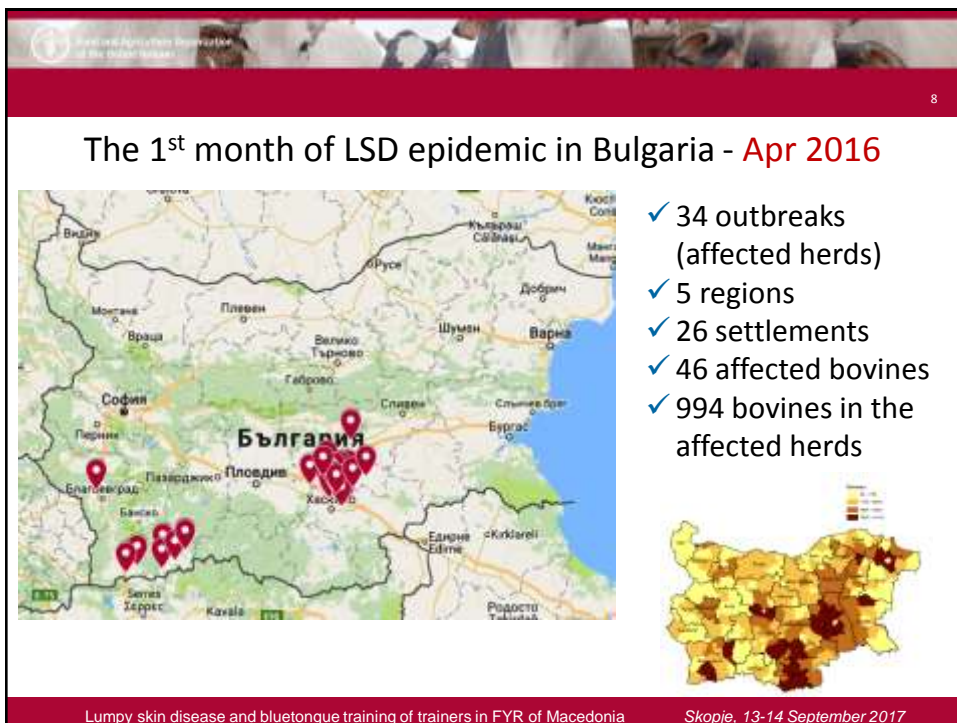
LSD outbreaks in 2014 – 20.10.2015 (Sources: ADNS)

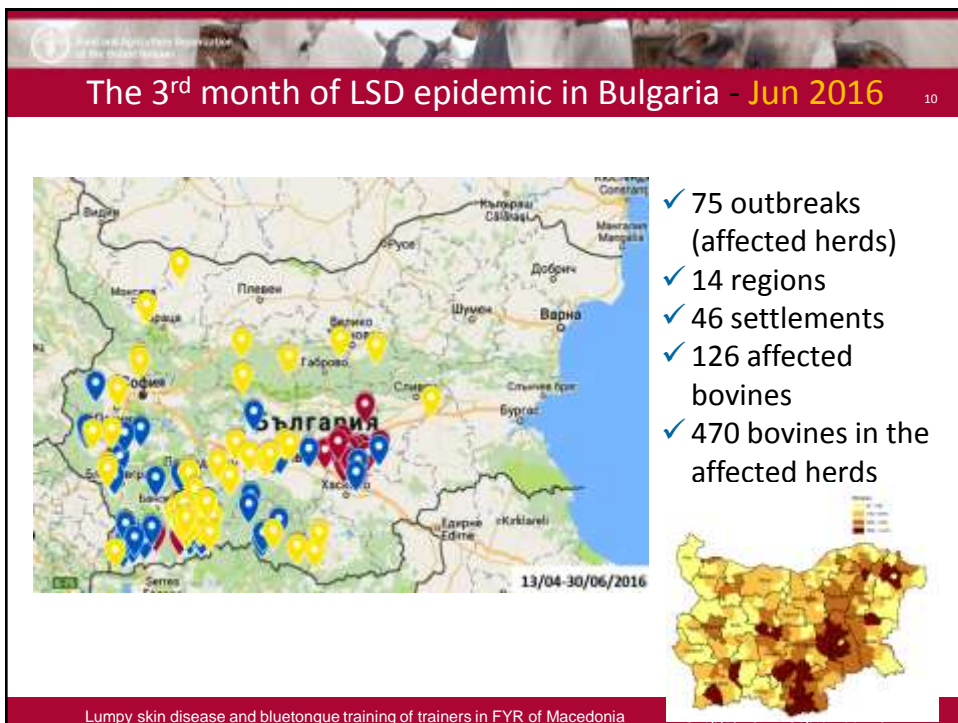
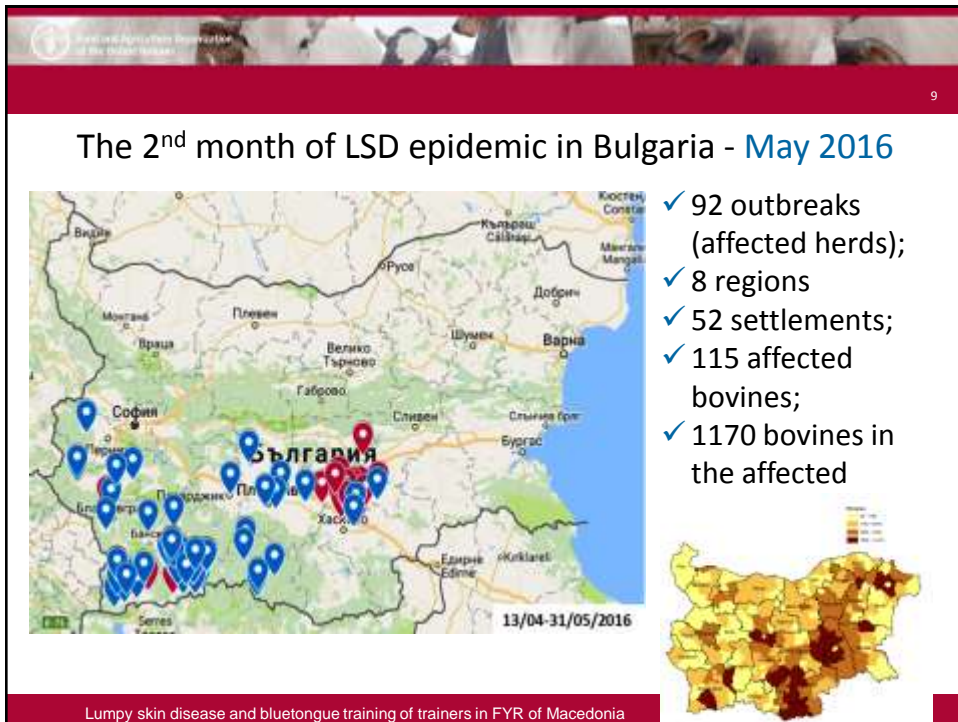
In the regions bordering Turkey and Greece:

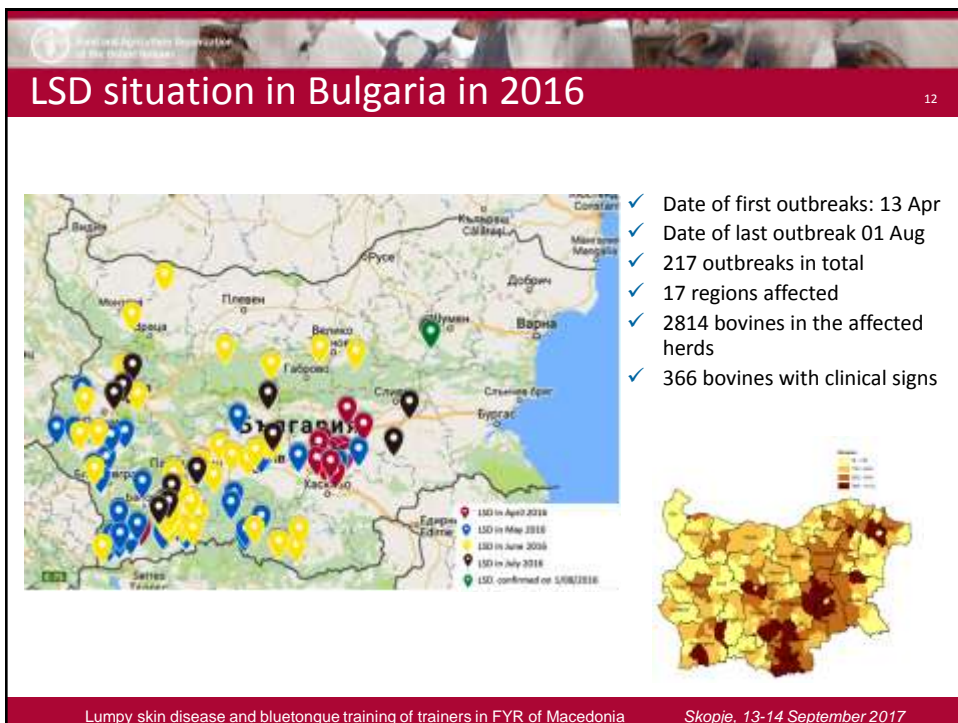
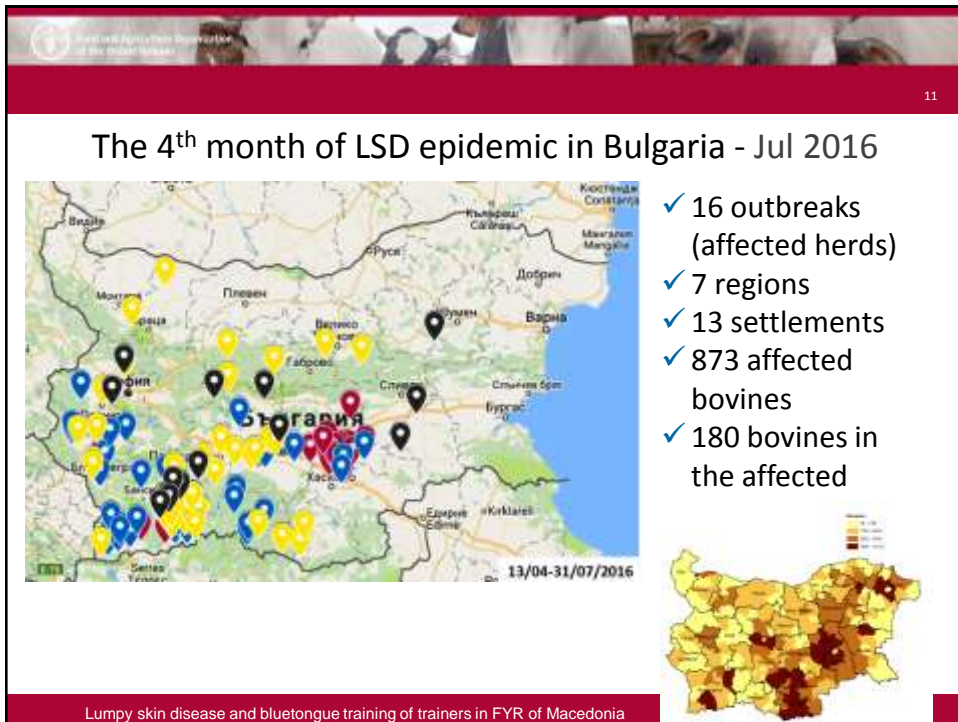
- ✓ Enforced epidemiological preparedness
- ✓ Weekly clinical examinations in all cattle herds
- ✓ Ban of animal markets
- ✓ Enforced controls on the identification of all cattle and update in the National electronic database
- ✓ Regional and municipal epizootic commissions
- ✓ Information for vets, farmers and other stakeholders about clinical signs, biosecurity measures and their obligations in case of suspicions
- ✓ Enforced controls on animal movements and biosecurity measures

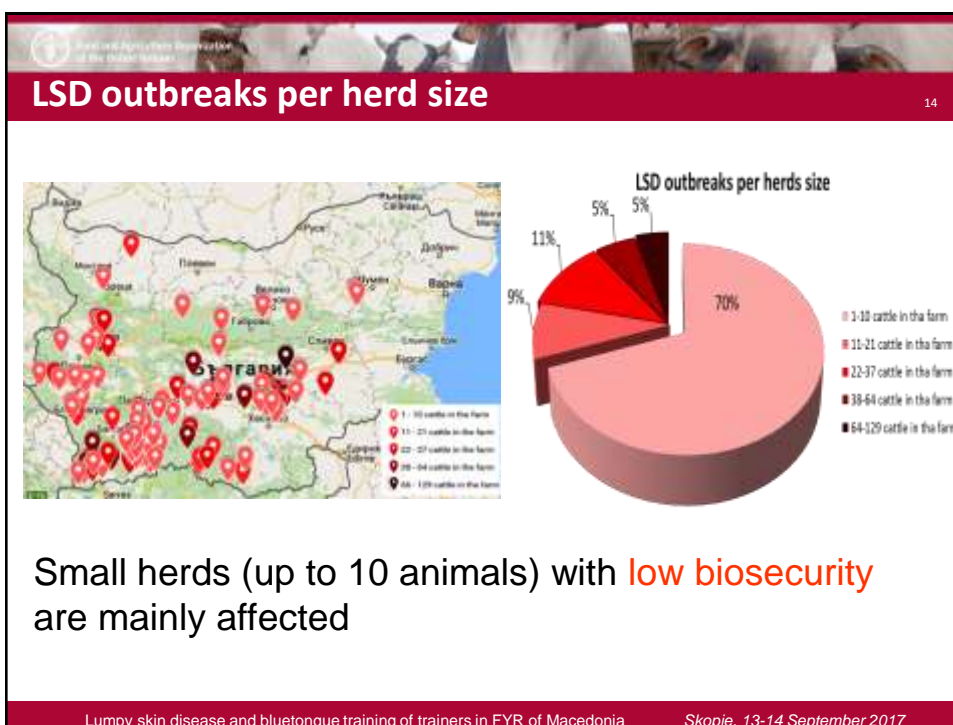
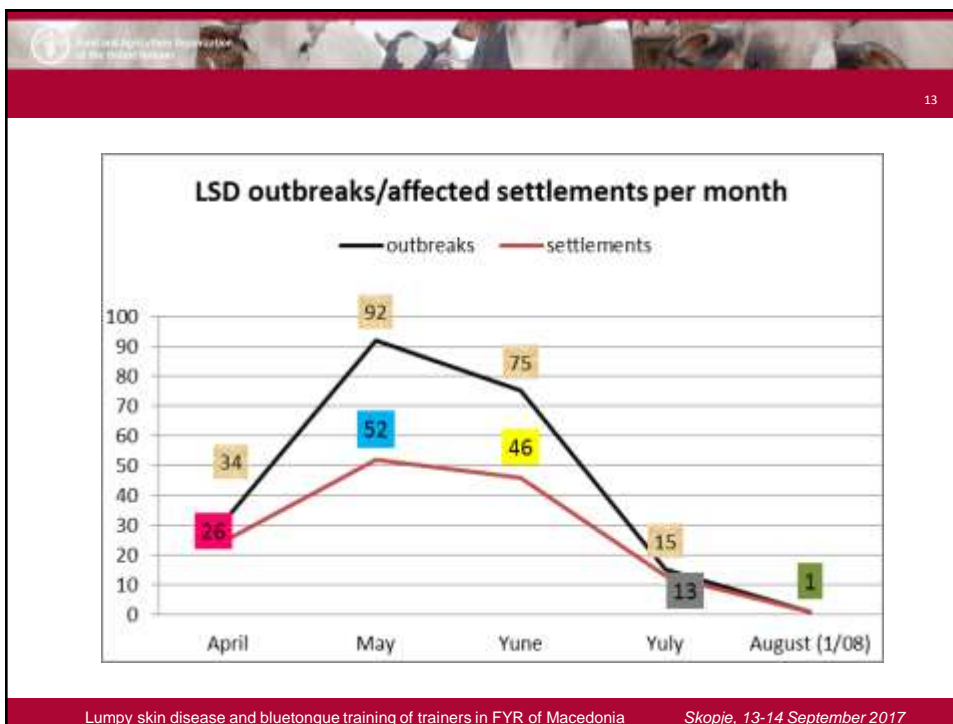
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How the disease did spread throughout the country

- ✓ Rivers and road dependent?
- ✓ The human factor:
 - Low biosecurity;
 - Animal transport
- ✓ Vectors




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Movie: LSD affected herd

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Surveillance in vectors

LSD virus found in:

- ✓ Flies:
Tabanus spodopterus - females
- ✓ Ticks:
Hyalomma marginatum - females
Rhipicephalus bursa - males + females



Control measures based on

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- ✓ Council Directive 92/119/EEC of 17 December 1992 introducing general Community measures for the control of certain animal diseases and specific measures relating to swine vesicular disease;
- ✓ Commission Implementing Decision (EU) 2016/645 of 22 April 2016 concerning certain protective measures against Lumpy skin disease in Bulgaria;
- ✓ Commission Implementing Decision (EU) 2016/1183 of 14 July 2016 approving the emergency vaccination programme against lumpy skin disease of bovine animals in Bulgaria and amending the Annex to Implementing Decision (EU) 2016/645;
- ✓ National legislation

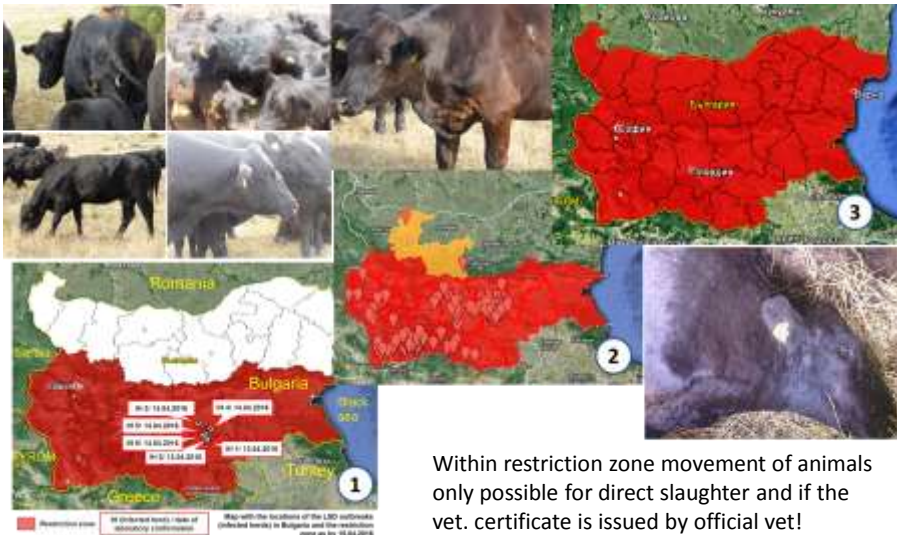
Control measures applied


- ✓ Total stamping out
- ✓ Compensation schemes and immediate payments to the farmers
- ✓ Restriction zone established - at the beginning South part of Bulgaria, then the whole territory of the country
- ✓ Intensified clinical surveillance
- ✓ Reinforced biosecurity measures
- ✓ Movement control as per the provisions of Decision (EU) 2016/645 and Decision 2016/1183 and before that




Restriction zones

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Vaccination in 2016



I st vacc round / 18 Apr – 05 May/ - 150 000 doses OBP / from EU bank (Neetling strain) around the LSD outbreaks at that time;

II nd vacc. round: /19 May – 5 June/ - 275 000 doses Intervet (SIS type) used for the rest of South, North-western areas of Bulgaria;

III th vacc. round: 10 June – 15 July - 350 000 doses OBP used for the rest of Bulgaria; 100% vaccine coverage



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Vaccination in 2017

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Ensuring vaccination of :

- new born calves and traded/exported bovine in entire country
- **1st (re)vaccination round - /22 Apr – 30 May/** -in areas based on the risk; >95 % vaccine coverage expected

308 850 doses

Dec 2016 – April 2017

Source of vaccine doses	Vaccine doses
stock from vaccination 2016	49350
EU bank	50000
Hungarian stock	209500

Map – LSD vaccination campaign 22.04-30.05.2017

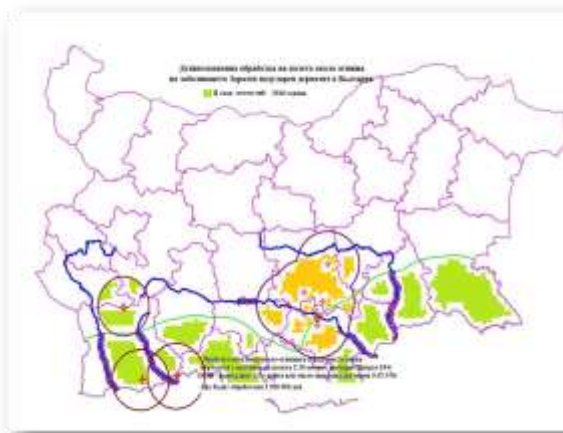


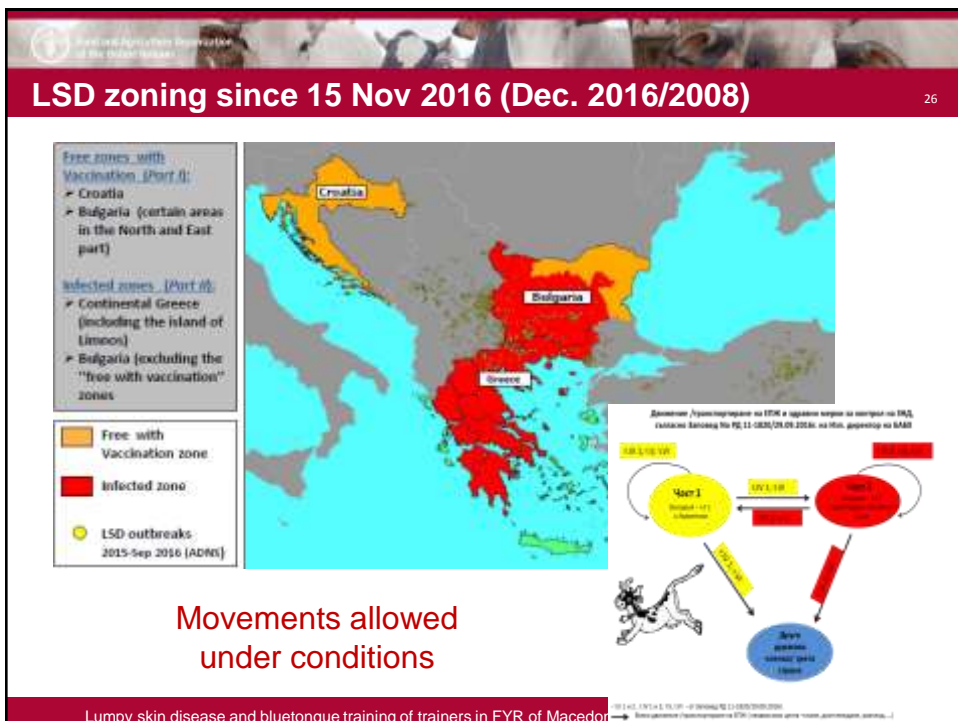
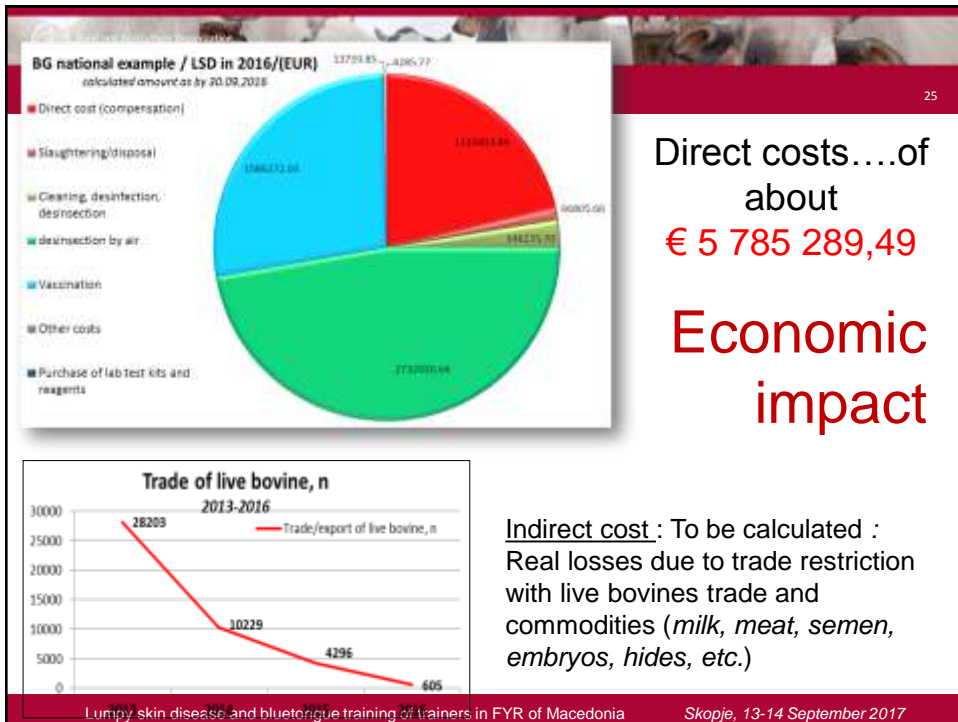
- Additional 301000 doses delivered
- Vaccination completed on the whole territory of the country



Vector control

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Key challenges and problems faced


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- ✓ New disease and lack of experience
- ✓ Quick response to many outbreaks at the same time
- ✓ Vaccine delivery – tender procedures; EC vaccine bank
- ✓ Outbreaks after vaccination
- ✓ Laboratory capacity
- ✓ Trade restrictions
- ✓ The social factor

Lessons learnt

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- ✓ LSD is clearly a regional problem that requires high level of awareness at technical and political level, involving many countries and can only be dealt with through coordinated international efforts
- ✓ The main risks of LSD transmission are associated with transfer of virus by blood-feeding vectors and possibly direct contact between infected and naive animals as well as non-controlled animal movements.
- ✓ Priority actions to prevent transmission are immediate culling and safe destruction of infected animals, safe mass vaccination to reduce disease spread, and movement controls to avoid long distance spread via direct contact with affected animals.
- ✓ Vaccination of cattle is the most effective option for controlling the spread of LSD especially if applied before the virus enters a region or a country.
- ✓ A lot of uncertainties and questions
- ✓ Researches needed


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Preventive and control measures for the control of Bluetongue

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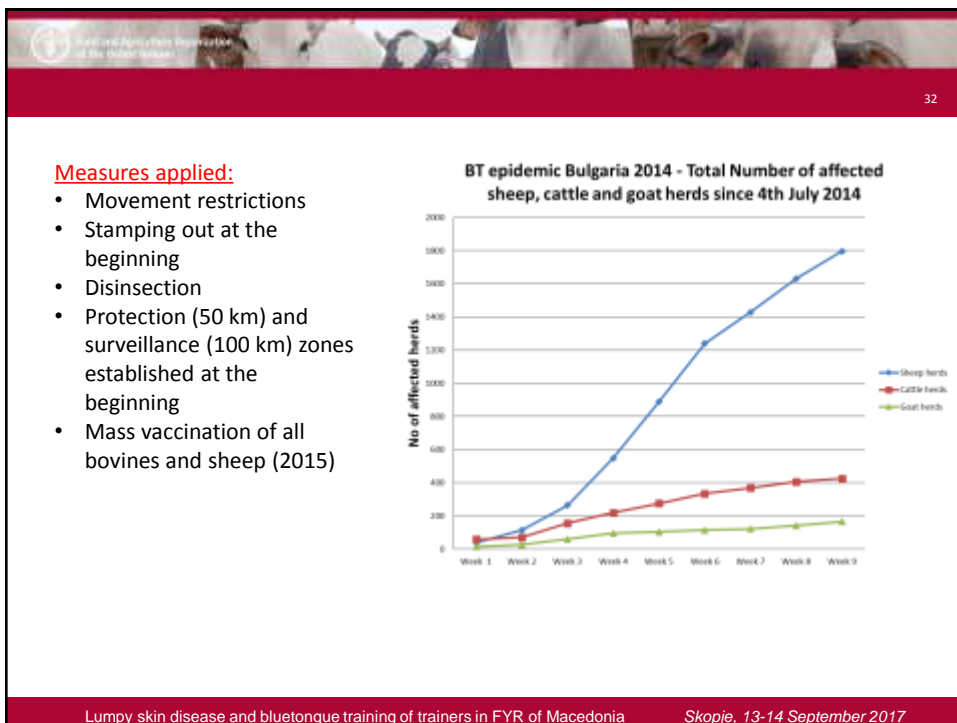
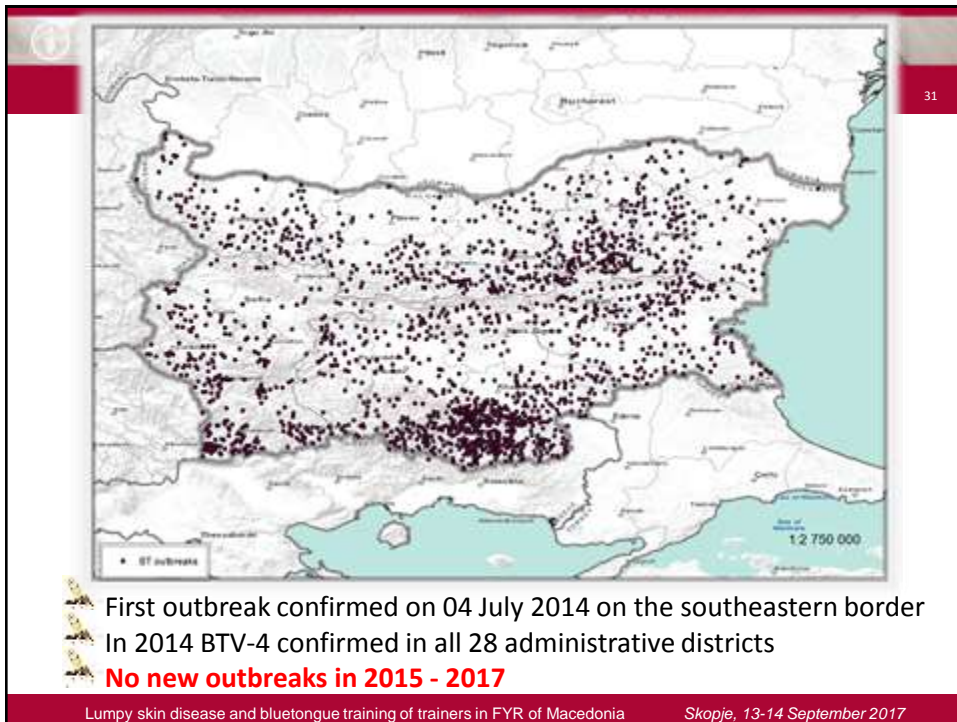

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Control measures established by the Member States

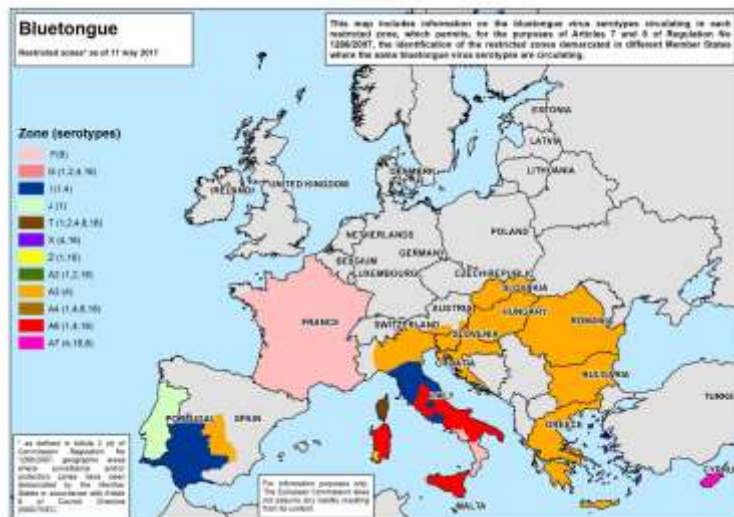
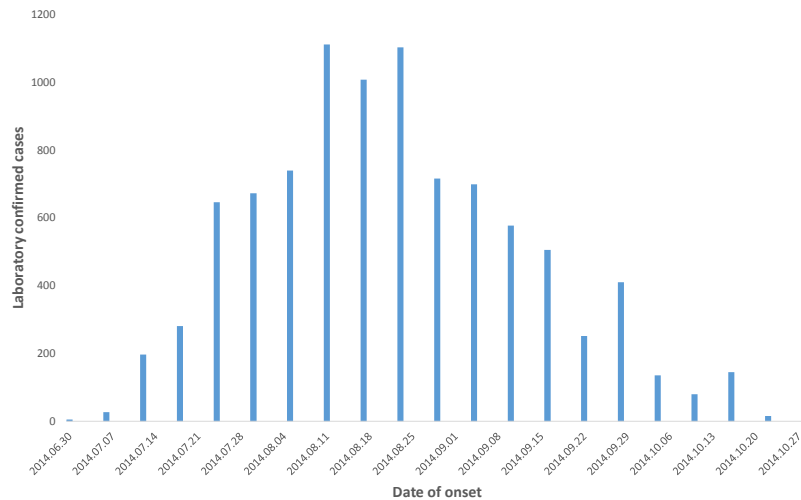
- Council Directive 2000/75/EC** lays down specific provisions for the **control and eradication of Bluetongue**. The measures to control and eradicate the disease include
 - ✓ vectors control, (use of insecticides in the animal premises and in the areas where these insects live, insect repellents onto animals, mosquitoes nets, etc.),
 - ✓ restriction to movements of live ruminants from affected areas to non-infected regions where the vector is present and the use of vaccines.
- Implementation measures** of Directive 2000/75/EC are established on [Commission Regulation \(EC\) No 1266/2007](#). This Commission Regulation provides for a more sustainable strategy for the control and eradication of Bluetongue, including the conditions for exemptions for the exit ban applicable to movements of susceptible animals and their semen, ova and embryos.
- Vaccination**

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2014 BT epidemic curve (until October)- sheep, goats, cattle and wild ruminants





BG surveillance and control programme

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- Surveillance – 59 sentinel bovines per region sampled and tested every two months
- Entomological surveillance- 100x100 km grid, 2 settlements per cell (42 collections per month)



- Vaccination of all cattle and sheep above 3 months of age (except sentinels)



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Thanks for your attention