



SERBIA

Cattle Population

Type of farming	Dairy	Beef	Total
Cattle population			886.655
Small holdings			134.236
Farms			1623

- Cattle density map if available: **n/a**
- Seasonal cattle migration: /N - **No migration routes customary**
- Nomadic farming practices: /N – **Nomadic farming practice is not customary**
- Domestic buffalo: /N – **no significantly**

LSD situation

- Number of outbreaks **225**
- First case: June 4, 2016 (confirmation June 7, 2016)
- Rapid spread !
- Total number culled animals: 709
- Last case: October 1, 2016.
- Outbreaks by production type (dairy, beef)) **n/a**
- Suspected/known source of infection – **vectors**

Expected way of entrance of LSD Before first outbreak in Serbia



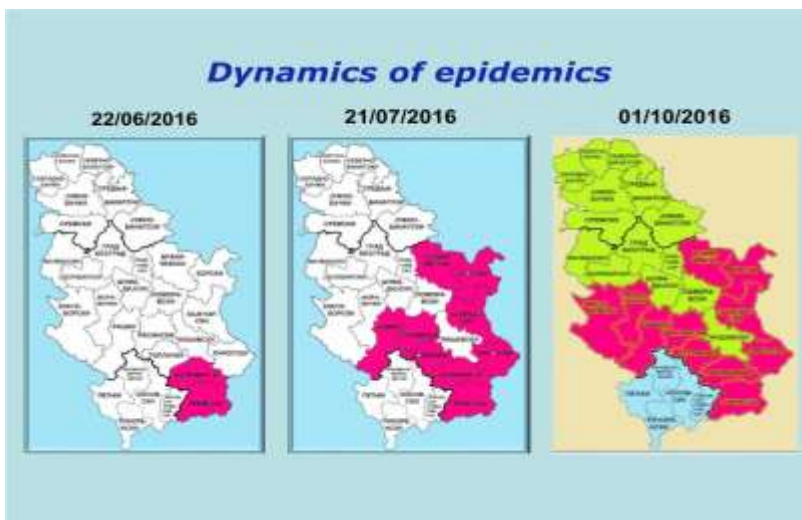
LSD situation at the end of June 2016



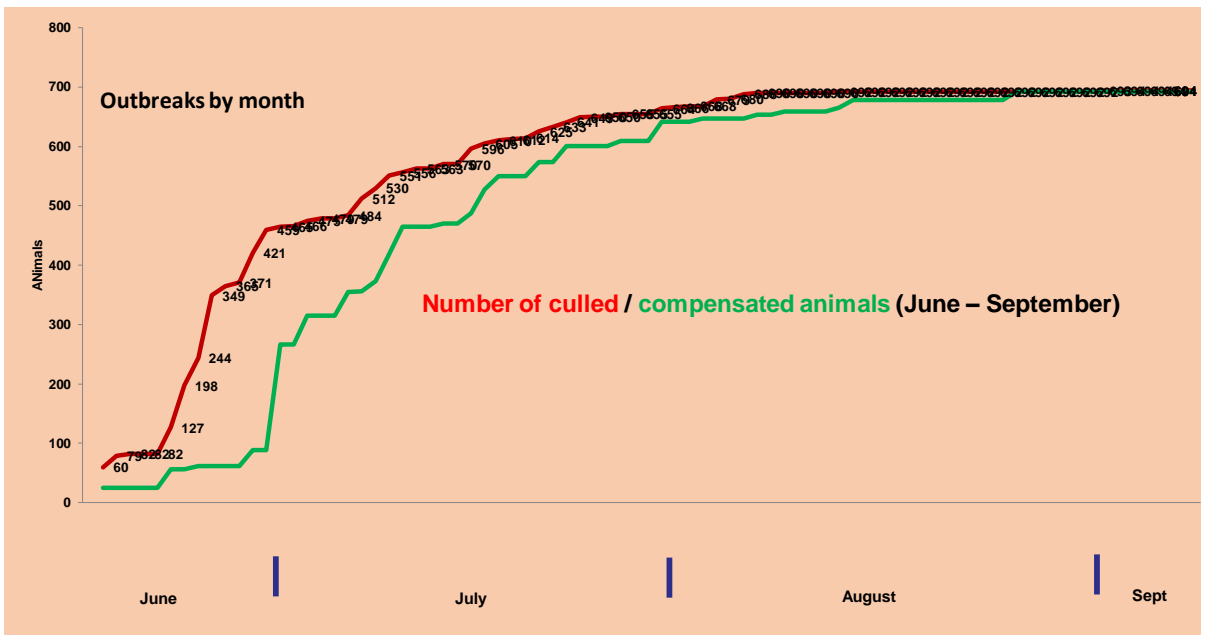
Vaccination plan

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Outbreak map:



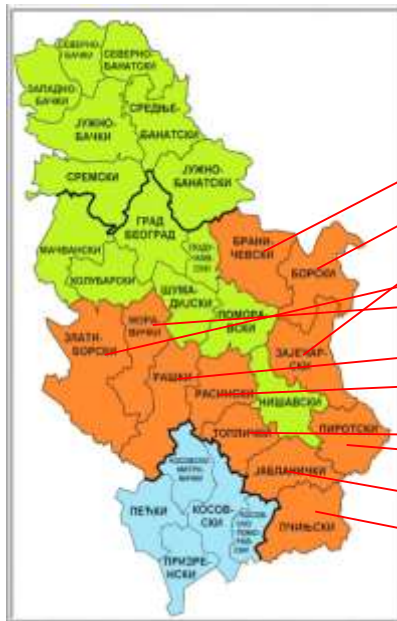
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273 diseased animals	99 before vaccination
174 after vaccination	2.033 number of animals per holding
1.177 cows per holding/255 diseased	338 bulls/8 diseased
518 calves per holding/10 diseased	709 culled animals
75.538.681,00 RSD (total compensation for all culled animals)	875.380 Number of vaccinated cattle (99,74%)
Last outbreak (without municipality of N.Pazar) 4/9/2016	Last outbreak (municipality of N. Pazar) 1/10/2016



District	No outbreaks	Diseased animals		Number of animals per holding	Culled animals
		Before vaccination	During vaccination		
1 Braničevski	1	1	0	13	13
2 Borski	1	0	1	4	1
3 Zajecarski	9	1	8	239	55
4 Zlatiborski	5	0	5	43	5
5 Moravicki	1	0	1	3	1
6 Raski	17	7	20	121	28
7 Rašinski	2	0	2	17	3
8 Toplicki	2	0	2	17	2
9 Pirotski	11	2	9	391	36
10 Jablanicki	7	5	2	57	39
11 Pcinjski	169	83	86	1128	520
TOTAL	225	99	174	2033	709

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Diagnostic capacity

Assay	Available	Not available	Testing possible at any time (24/7)	Max capacity of sample testing/day
PCR Gel based	<ol style="list-style-type: none"> For detection - Ireland & Binepal (1998) For differentiation field from vaccine strain DIVA - Menasherow (2014) 		yes	300
PCR Real-time	<ol style="list-style-type: none"> For detection – Bowden (2008) For differentiation field from vaccine strain DIVA – Vidanovic (2016) 		yes	300
Virus isolation	Yes		yes	40
Serology		Not available		
Other	Regional workshop on lumpy skin disease prevention, control, and awareness Gene sequencing		Budapest, Hungary, 7-9 March 2017	

LSD Vaccination campaigns

	Start (Date)	Finished (Date)	Vaccination strategy (whole country, ring vacc., buffer zone)	Vaccination coverage in vaccinated areas (%)
LSD Outbreaks	8.6.2016.	1.10.2016.	Whole country	99,74%
Vaccination campaign (2016)	24.6.2016.	1.9.2016.	Vacc. of newborned calves	Still in progress
Vaccination campaign (2017)			Vacc. of newborned calves	
Lumpy skin disease vaccine for cattle	OPB			
Lumpyvax	MSD			
Other vaccine (name)				

- Started tender for vaccine for vaccination campaigns in 2017 **YES (LAST WEEK)**

Outbreak response

Measure	Applied			Not applied	
Contingency plan available				NO	
Cattle movement control	YES				
Cleaning and disinfection	YES				
Stamping-out policy	Total (all animals)	Partial (only those with clinical signs)	Partial (only severe cases)		
Disposal of carcasses	At site	Outside	Into a plant		
	Burning	Burial	Rendering		
Vector control	Animals	Facilities	Environment		
Clinical surveillance	Active (540 of samples)	Passive (# of samples)	Total number of samples	540	
			Biopsy samples	134	94% positive
Serosurveillance	219 of samples		blood	219	40% positive
			Nasal swabs	76	50% positive
			Milk	20	35% positive
			DNA	67	84% positive
			Insects	4	100% positive
			Environmental swabs	20	95% positive

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Challenges

- **New vaccination campagne!**
- **Start at begining of may!**
- **All cattle population!**
- **Presence of virus?**
- **Would it be enough vaccine (we ordered 1.200.000 doses)?**
- **Would vaccines be able before vaccination campagne?**
- **LSD strategy in surrounding countries?**
- **Would we have support of RS Gov. and other institution like we had strong support in 2016?**

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