



REPUBLIC OF TURKEY MINISTRY OF FOOD
AGRICULTURE AND LIVESTOCK



LSD Situation, Surveillance and Control Activities in TURKEY

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LSD Situation, Surveillance and Control Activities in TURKEY

Situation & Activities (in 2013)

➤ **LSD control strategy ;**

LSD control strategy of Turkey is based on Veterinary Services, Plant Health, Food and Feed law no: 5996 and in compliance with Council Directive 92/119/EEC except slaughtering.

- LSD is a compulsory notifiable disease in Turkey.
- ✓ Restriction, Quarantine, Ring Vaccination, Sampling, Diagnosis
- ✓ Control of animal movements
- ✓ Cleaning and Disinfection in outbreak areas
- ✓ Insect control
- ✓ Vaccination in outbreak area.

- National Reference Laboratory is Pendik Veterinary Control Institute

- SGP vaccine (Bakırköy strain, local strain; Penpox-M) is used for LSD that produced by PPCI and two private companies



Situation & Activities (in 2013)



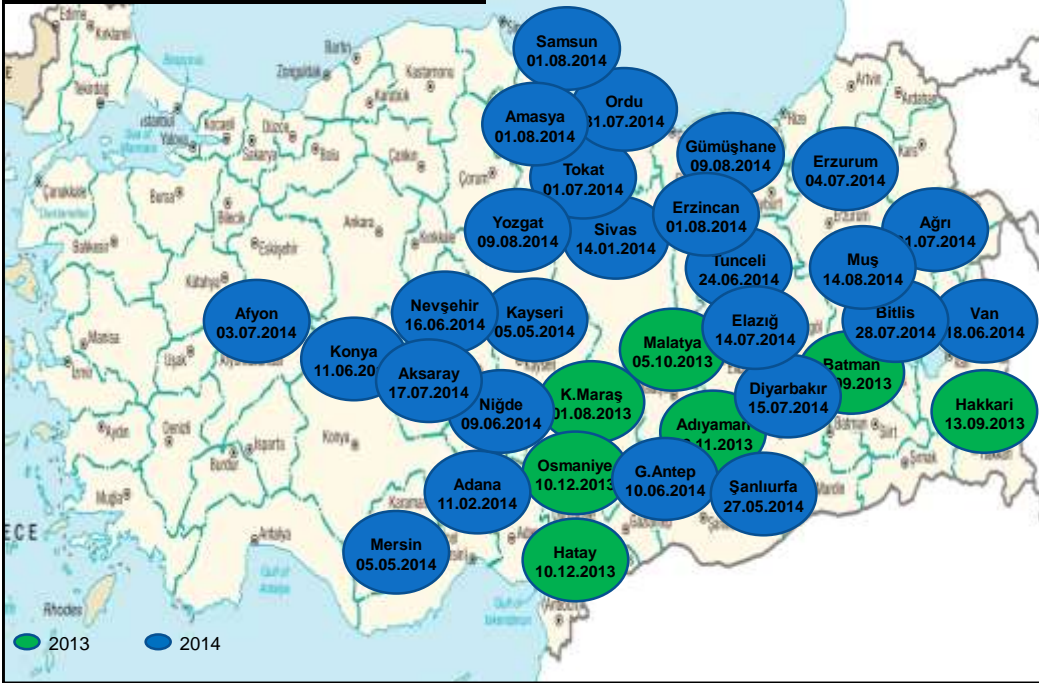
Situation & Activities (in 2014)

➤ Payment of compensation (2014)

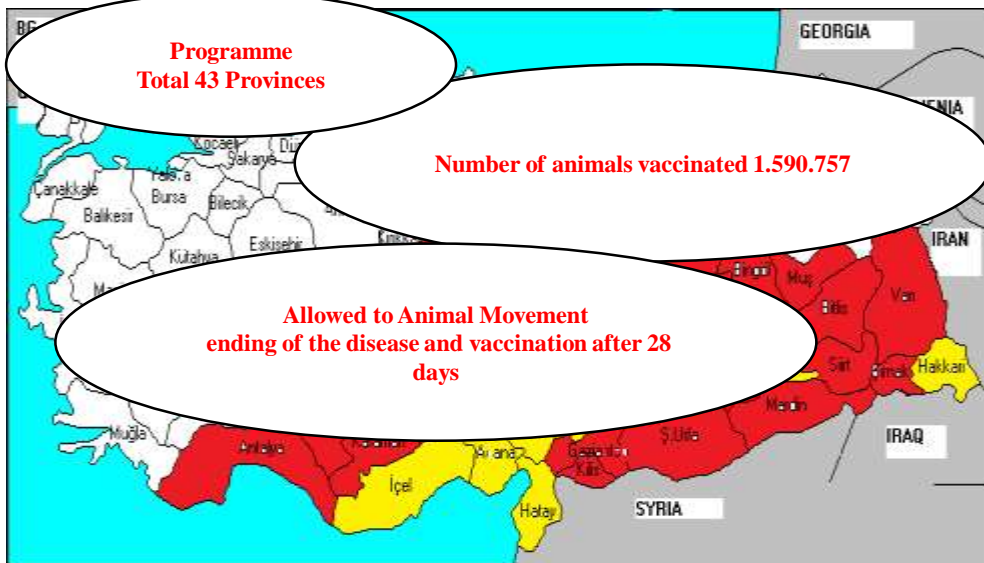
✓ Eradication of the disease and may occur as a result of loss compensation in 2014 was added to the list of compensation diseases

✓ Positive laboratory result and clinically symptomatic animals in outbreak zone compensated to the owners (%50 of the animal value) by government.

LSD Outbreaks (2013 August–2014 August)

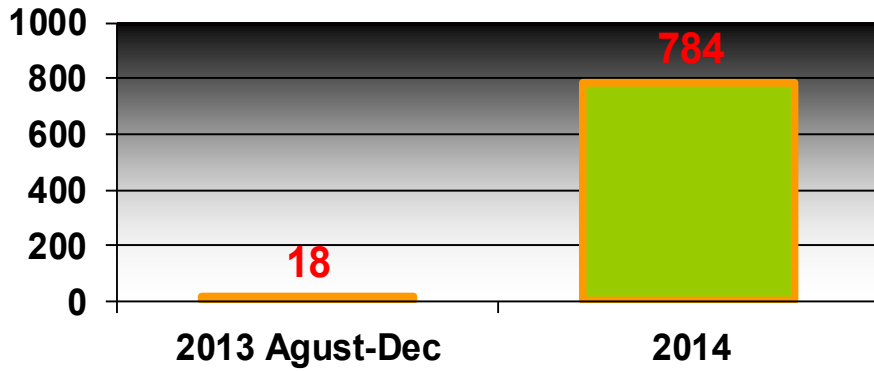


Vaccination Zone 2014

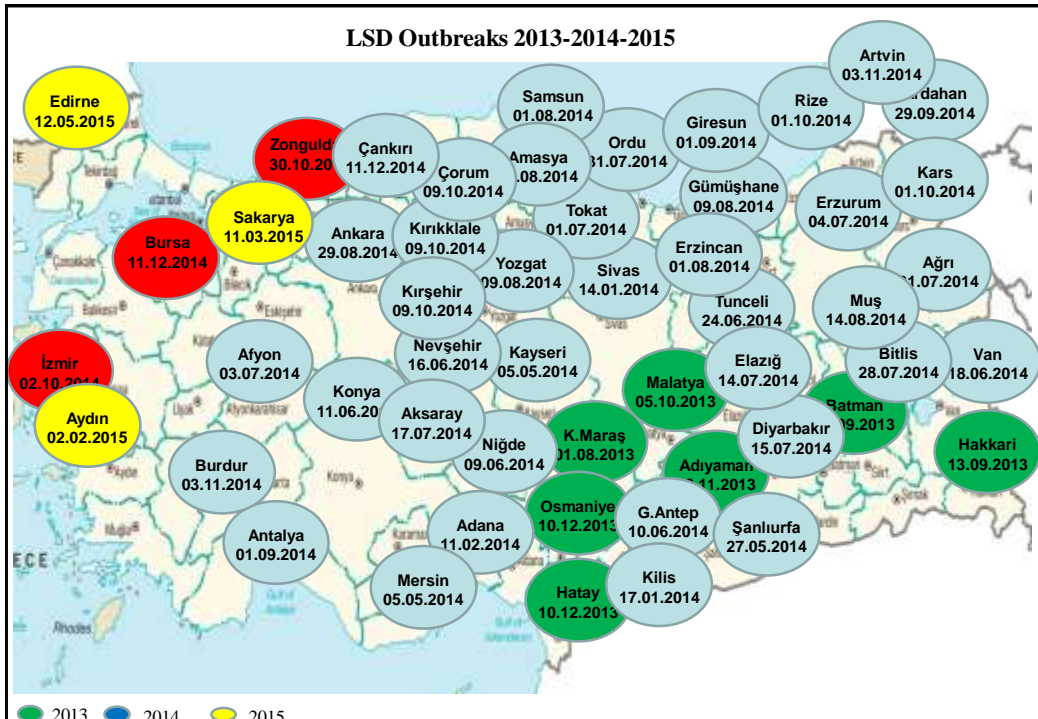




LSD Outbreaks & Years (2013-2014)

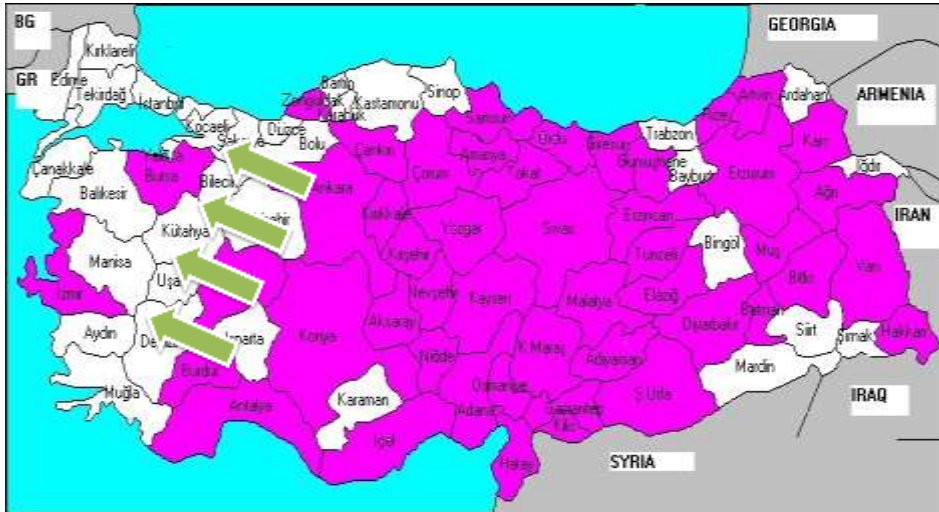


LSD Outbreaks 2013-2014-2015





LSD Outbreaks (2014)



Observations & Evaluations of 2014

- **Some vaccinated animal was sick after vaccination ;**
 - ✓ Animals in the incubation period of disease
 - ✓ Biological properties (Lactation, pregnancy, weak body condition) are very effect to occur the LSD; **Predispose factors**
 - ✓ The intency of the outbreaks in region is an other factor.

- **Subclinical infected animals** (after the quarantina period (30 days) the animals are allowed to move movement from the outbreaks areas).
 - ✓ Subclinical infected animals were infect new provinces.

- **Kurban festival** is a potential risk for spread of the LSD to distant locations. Control measures should be increased in periods such as Kurban festival

- **Climatic changes** and geographical status;
 - ✓ long summers
 - ✓ late coming winter
 - ✓ warmer winter
 - ✓ windy weather (sand storm)
 - ✓ wetlands
 - ✓ altitude

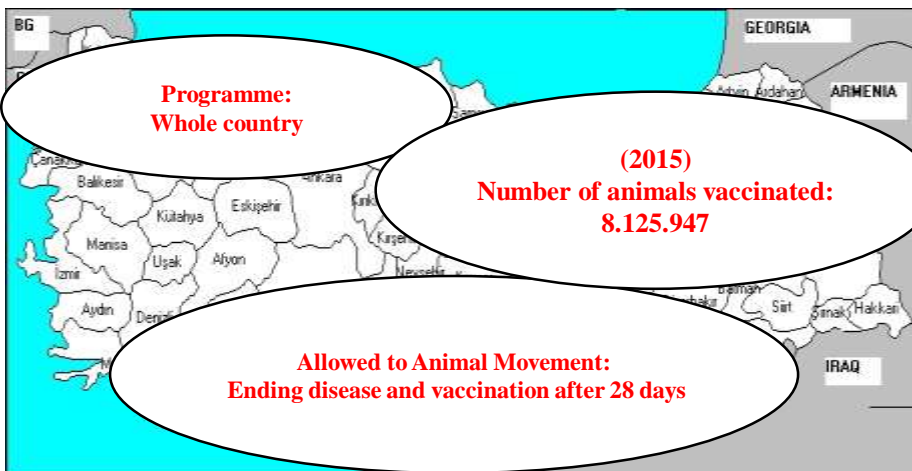


Situation & Activities (in 2015)

- All provinces in Turkey were included in the vaccination campaign. Start of Vaccination campaign was determined by each local authority (because of differences between their climate conditions, geographical status and husbandry system)
- Vaccine dose was increased to 3 times doses sheep and goat pox vaccine (Penpox-M)
- Vaccination campaign was planned for all cattle populations (older than 3 months and under 9 months pregnant)
- Compensation rate of 2015 was raised from %50 to % 100.
- After the vaccination campaign was completed, the animal movement was allowed. Vaccination control became mandatory prior to animal movement.




Vaccination Zone 2015





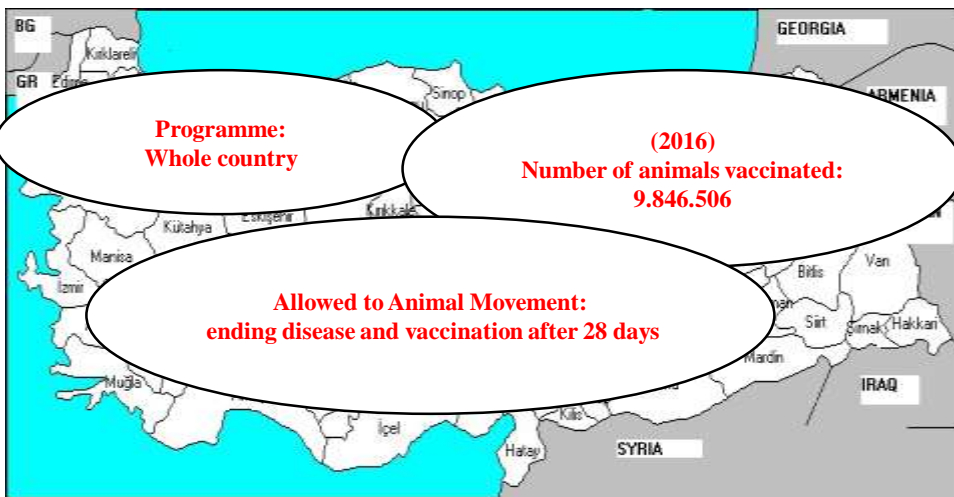
LSD Outbreaks (2015)



 Total 510 Outbreaks

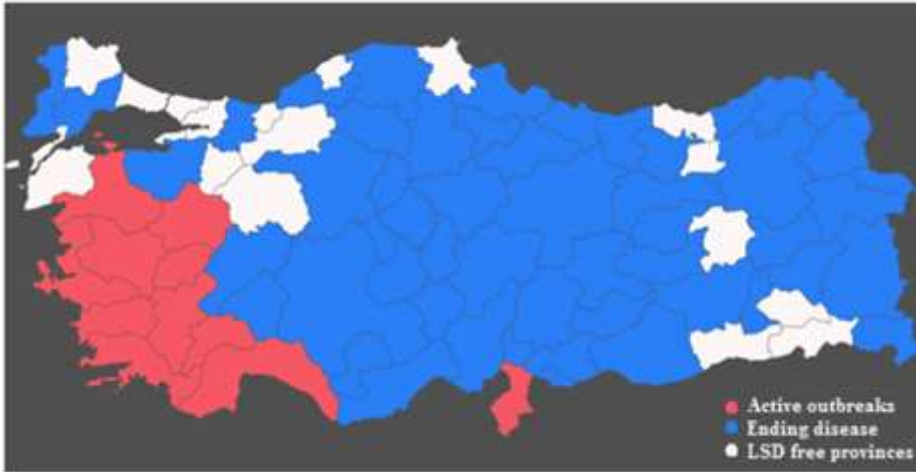


Situation & Activities (in 2016)





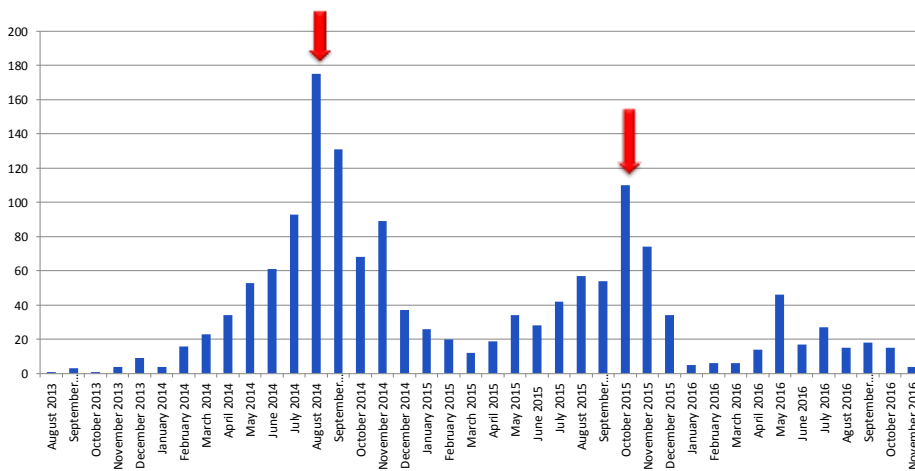
LSD Outbreaks (2016)



Total 221 Outbreaks

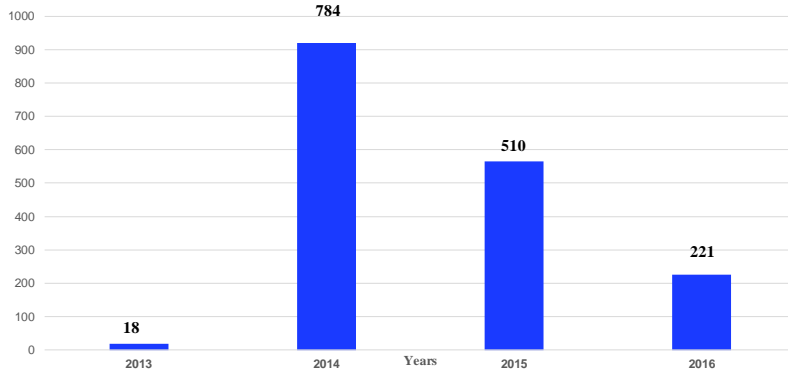


Monthly LSD reports from 2013 to 2016

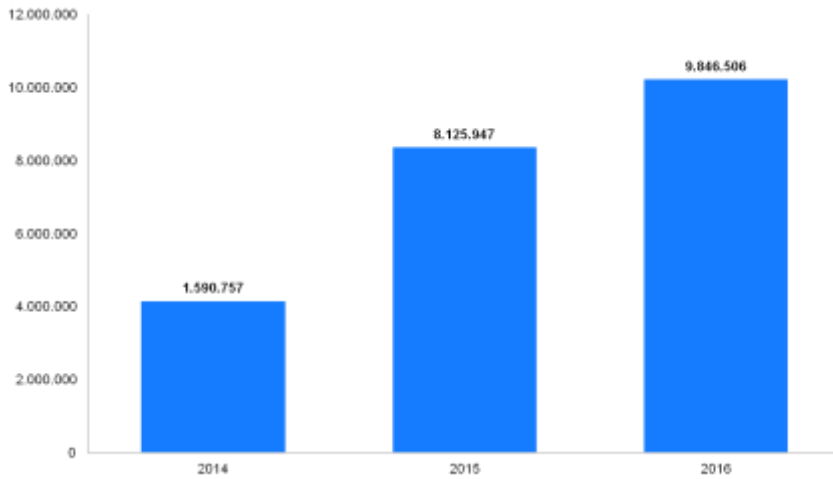




Distribution of LSD Outbreaks by Years

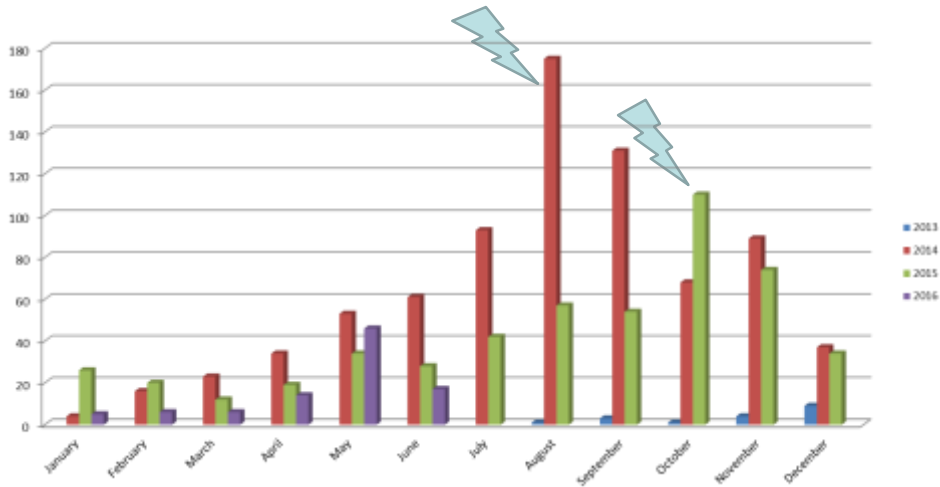


Number of Vaccination





LSD Outbreaks Month By Month Between 2013 - 2016



Our Studies

- Study area: Villages where LSD occurred in district level
- District level screening

$$\text{Efficacy} = \frac{\text{ARU} - \text{ARV}}{\text{ARU}} \times 100$$

One dose vaccine efficacy in 2014			
Yahyalı District, Kayseri Province			
#cattle	#vaccinated	#unvaccinated	#Total
infected	17	32	49
Noninfected	6836	928	7764
Total	6853	960	7813
Efficacy(%)	92,56	Morbidity(%)	0,2

Three dose vaccine efficacy in 2015			
Uzunköprü District, Edirne Province			
#cattle	#vaccinated	#unvaccinated	#Total
infected	35	20	55
Noninfected	6581	19	6600
Total	6616	39	6655
Efficacy(%)	98,96	Morbidity(%)	0.5

Three dose vaccine efficacy in 2016			
Foça District, İzmir Province			
#cattle	#vaccinated	#unvaccinated	#Total
infected	34	11	45
Noninfected	1426	0	1426
Total	1460	11	1471
Efficacy(%)	97,67	Morbidity(%)	0.2



Clinical symptom after vaccination



!!! No Side Effects (anaflexia, abortion, local reaction)



Field Observations in Turkey

- **In winter 2014 also 2015**, outbreaks was continued slightly.
- Outbreaks were seen close or far from **water sources**.
- LSD outbreaks also occurred at **all heights** varying between 50m to 1300m by difference in Turkey.
- This could be evidence that LSDV can be transmitted by other vector or by other ways **which can survive in the environment for a long time or different conditions or different vector???**



Experiences

- **Vaccination** most important measure
 - **Rate of vaccination (80-90%) and vaccination time (BEFORE VECTORAL ACTIVITY)**
- **Clinical survey** must be done periodically.
- Early detection and confirmation, culled and other control measures should be applied **very quickly**.
- **Control of animal movement** very important especially for subclinical infected and infected in incubation period animals.
- Vector control??



Acknowledgements



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TEŞEKKÜRLER.

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T.C.
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BAKANLIĞI