



**GF-TADs**

GLOBAL FRAMEWORK FOR THE  
PROGRESSIVE CONTROL OF  
TRANSBOUNDARY ANIMAL DISEASES



**Standing Group of Experts on Lumpy Skin Disease  
in Europe**  
under the GF-TADs umbrella

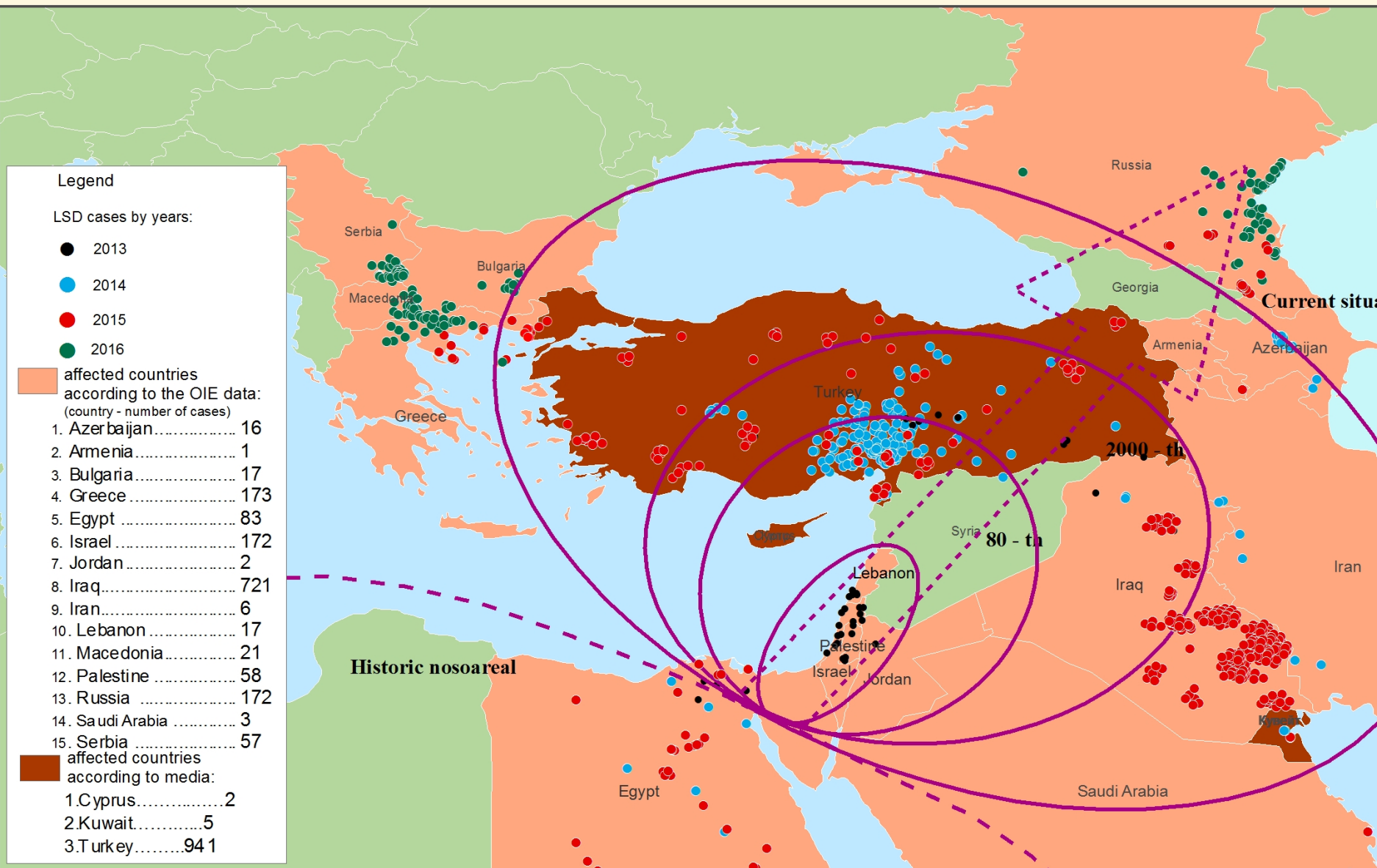
**First meeting (LSD1)**  
**Brussels, Belgium, 4-5 July 2016**

**Report of Russia**  
**Dr N. Lebedev**

# Lumpy skin disease in Near Eastern and European countries

2013 - 2016

(OIE data as of 01.07)



## Legend

### LSD cases by years:

- 2013
- 2014
- 2015
- 2016

affected countries according to the OIE data: (country - number of cases)

1. Azerbaijan..... 16
2. Armenia..... 1
3. Bulgaria..... 17
4. Greece..... 173
5. Egypt..... 83
6. Israel..... 172
7. Jordan..... 2
8. Iraq..... 721
9. Iran..... 6
10. Lebanon..... 17
11. Macedonia..... 21
12. Palestine..... 58
13. Russia..... 172
14. Saudi Arabia..... 3
15. Serbia..... 57

- affected countries according to media:
1. Cyprus..... 2
  2. Kuwait..... 5
  3. Turkey..... 941

**Historic nosoareal**

**Current situation**

**2000 - th**

**80 - th**

# Lumpy Skin Disease in the RF in 2015

1. No LSD cases were reported in the RF until 2015.
2. Epidemic situation in 2015:
  - Clinical signs of LSD were detected in cattle in 11 settlements of the Republic of Dagestan;
  - in 4 settlements of the Chechen Republic;
  - in 2 settlements of the Republic of North Ossetia.

**In all cases biomaterial samples were collected and tested by PCR**



# LSD infected RF regions, 2015



● LSD infected settlements (OIE data)

Republic of Dagestan:

1. s.Barnab
2. s.Kamilukh
3. s.Krasnoye
4. s.Gerel
5. s.Kalob
6. s.Tzumilukh
7. s.Khadiyal
8. s.Khidib
9. s.Gvedysh
10. ZAO "Darada-Murada"
11. s.Ullubiyevka

Republic of Chechnya:

12. s.Kalinovskaya
13. s.Novoterskoye
14. s.Podgomoye
15. s.Ken-Yurt

Republic of North Ossetia:

16. s.Drag-Kokh
17. s.Kardzhin











## Laboratory diagnosis:

- LSD is diagnosed based on the epidemical data, clinical signs, post-mortem findings and laboratory tests;
- FGBI “ARRIAH” performs comprehensive diagnosis which includes:
  - **virological tests:** virus isolation;
  - **molecular biology techniques:** capripoxvirus detection and identification using multiplex PCR (2007), study of capripoxvirus genome fragments by sequencing;
  - **antigen determination;**
  - **Bioassay** in naturally susceptible animals



# Lumpy Skin Disease in the RF in 2016

Epidemic situation in 2016:

- infected Subjects of the RF- 7;
- total number of outbreaks- 52

**In all cases biomaterial samples were collected and tested by PCR**



# Epidemic situation on Lumpy skin disease in the Russian Federation, 2016

(N = 155 as for\* 04.07.2016)

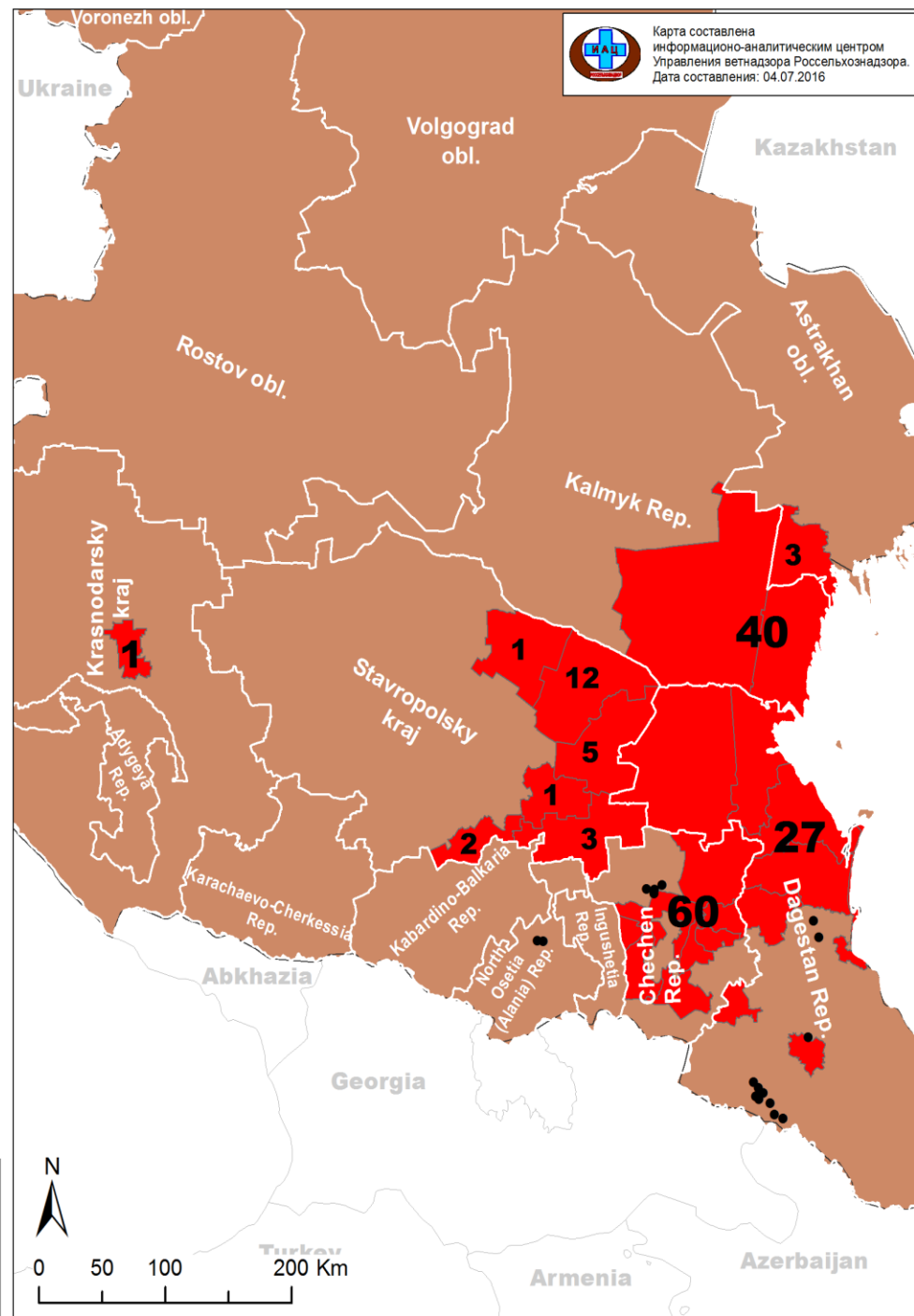


- Astrakhan oblast:** N = 3
- Krasnodar kraj:** N = 1
- Rep. Dagestan:** N = 27
- Kalmyk Rep.:** N = 40
- Chechen Rep.:** N = 60
- Stavropolsky kraj:** N = 24

### Legend:

- LSD cases in 2015
- LSD-affected districts in 2016

\*data provided by FGBl "Veterinary Center" (Moscow)



Карта составлена информационно-аналитическим центром Управления ветеринарии Россельхознадзора. Дата составления: 04.07.2016

## Measures taken in case of infection

**Legal basis of the control: Order of the Ministry of Agriculture of the Russian Federation No. 81 of May 17, 2005 (Moscow) “Approval of the List of Quarantine and Highly Dangerous Animal Diseases”**

1. No cattle movements and regrouping;
2. In case of new disease cases the diseased and suspect animals shall be isolated in the same facilities where they were housed;
3. No marketing of animals, their slaughter products and feed;
4. Samples of pathological materials shall be collected from disease suspected animals and/ or from dead cattle and shall be urgently (within 24 hours) sent for testing;
5. Comprehensive measures shall be taken to prevent spread of the disease and to eradicate it taking into account potential confirmation of lumpy skin disease diagnosis.



## Measures taken for the infection eradication

According to quarantine requirements in case of the outbreak confirmation on a farm the cattle owners shall do the following :

- Stop all cattle movements and regrouping;
- Ban entrance of unauthorized persons to the farm excluding animal handlers and veterinarians;
- Stop slaughter of animals kept on the farm as well as marketing of animals, their slaughter products and feed;
- Ban exit and entrance of vehicles to the LSD outbreak as well as exit of personnel without decontamination.

As soon as the first LSD cases occurred in a herd the diseased and contact animals shall be withdrawn from the herd. Such animals shall be bloodlessly killed under the due control of the official veterinarians.

**In order to prevent the disease spread all LSD susceptible animals located in the outbreak shall be treated with repellents and insecticides. The animals are also subject to vaccination!**



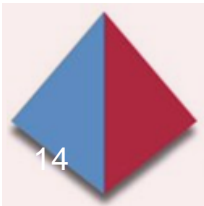
# Preventive vaccination

Heterologous live attenuated vaccine is used for the disease specific prophylaxis.

**FGBI ARRIAH has completed a series of experiments involving cattle infection with the vaccine based on the attenuated sheep pox virus strain “ARRIAH” :**

- At OIE recommended administration dose of  **$10^4$  TCID<sub>50</sub>** the vaccine demonstrates relevant potency and protects cattle against challenge with virulent LSD virus strain.

Currently preclinical trials of the homologous LCD vaccine are in process.



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# LSD PREVENTION

Live attenuated LSDV vaccine or live attenuated sheep and goat pox virus vaccine

**FGBI ARRIAH has performed a series of experiments determining the potency of live attenuated sheep pox virus vaccine based on “ARRIAH” strain:**

-At the OIE recommended dose of  $10^4$  TCID<sub>50</sub> this vaccine confers full protection in cattle challenged with virulent LSDV

## **The vaccines in our portfolio:**

- Freeze-dried live attenuated sheep pox virus vaccine (50 and 100 doses)
- Freeze-dried live attenuated goat pox virus vaccine (50 and 100 doses)
- Freeze-dried live attenuated sheep and goat pox virus vaccine (50 and 100 doses)



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**Thank you for your  
attention!**