

# OFFICIAL LSD VACCINATION PLAN

## GREECE 2023

- a) The description and the results of the assessment performed in accordance with Annex II, including the epidemiological situation and the relevant information used as a basis for the assessment;

*Since 2012, Lumpy Skin Disease (LSD) had been spreading on an unusually large scale throughout Middle Eastern countries. Turkey reported its first cases in 2013, while the first cases of LSD in the European part of Turkey were reported in 2015.*

*Lumpy Skin Disease (LSD) was firstly confirmed in Greece in August 2015. This was the first confirmation of the disease in the European territory as well. More specifically, the disease was confirmed in the Regional Unit (RU) of Evros, in the region of Eastern Macedonia and Thrace, near to the Evros river which is the natural northern border with Turkey. A total of 117 outbreaks were confirmed in the country (in the Regions of Eastern Macedonia and Thrace, Central Macedonia and in the island of Limnos). The epizootic continued in 2016 with a total of 104 outbreaks confirmed. The last two (2) outbreaks of the disease occurred in the RUs of Kerkyra (Region of the Ionian Islands) and Karditsa (Region of Thessaly) in 2017.*

*All measures described in union and national legislation were applied in the RUs characterized as restricted areas: surveillance and protection zones, stamping out, movement controls and sanitary burials. LSD vaccination started from the RU of Evros in September 2015, while it has been extended to the entire Greek territory since 2016 and it is obligatory for all animals of susceptible species (bovines, buffalos).*

- b) The main objectives and targets with the chosen vaccination strategy and the official vaccination plan;

*The main target is to prevent disease recurrence. In bovine animals, a clinical examination is performed before the administration of the vaccination, to timely detect the disease. If there is no clinical suspicion of the disease the vaccination is performed as intended.*

- c) The detailed geographic description of the vaccination zone in which vaccination is to be carried out and the location of establishments keeping animals to be vaccinated, when available and applicable, including maps;

*LSD vaccination is compulsory for all bovine animals in all Regional Units of the country (Map 1, 2).*

- d) Where relevant, the detailed geographic description of the peri-vaccination zone surrounding the vaccination zone, and the location of establishments keeping animals of listed species, when available, including maps;

*Not applicable.*

- e) The number of establishments keeping animals of listed species located in the vaccination zone and the number of establishments in which vaccination is to be carried out, if different;  
*The total number of herds in which vaccination will be carried out is 18,244 in all Regional Units of the Greek territory.*
- f) The estimated number of kept animals of listed species to be vaccinated, their categories and, when relevant, their age;  
*The number of adult bovines expected to be vaccinated is 808,730, and the number of young animals (less than 12 months of age) expected to be vaccinated is 81,412.*
- g) Intended final use of vaccinated animals and products;  
*The intended final use of vaccinated animals and their products is the production of meat and milk that meets regulatory standards.*
- h) Categories of animals exempted from vaccination and reasoning;  
*Calves from vaccinated cows younger than 6 months of age which have maternal immunity and unhealthy bovines in which vaccination is ineffective, should not be vaccinated.*
- i) The arrangements to administer the vaccine and the system to supervise the administration of the vaccine;  
*LSD vaccination is implemented in the entire Greek territory and is obligatory for all bovine herds. The activities of the programme including definitions of terms and competent authorities, responsibilities, instructions for the implementation and recording of vaccination, passive and active surveillance of the disease are included in the Ministerial Decision No 4349/135471/21.12.2017 (Government Gazette No 4549B).  
Annual vaccination is being implemented since 2015. All animals subjected to vaccination must be marked with an individual labeling (tagging/ear tag) and must be registered in holding records. Also, a Central Veterinary Database has been developed for registration of vaccination data by the Official Veterinarians in the RUs.  
Vaccination data are registered in the national LSD Vaccination Database. Official Veterinarians in the Veterinary Authorities of the RUs are authorized to register vaccination data in the area of their jurisdiction. Monitoring of data registration, vaccination coverage and all matters involved is being performed by official veterinarians and IT staff in the CCVA. For the purpose of monitoring field activities at central level, monthly diaries of seasonal personnel activities by each RU are sent to the CCVA (Circular No 275/42761/10.02.2021).*
- j) The envisaged duration of the vaccination, from the start of the vaccination to the end of the surveillance carried out after vaccination;  
*LSD vaccination started from the RU of Evros in September 2015, while it has been extended to the entire Greek territory since 2016 and it is obligatory for all animals of susceptible species (bovines, buffalos) up to 2023. Owners of bovine holdings are compelled by national and EU legislation to keep their herd vaccinated/immunized on an annual base, in order to be able to*

*trade bovines and to proceed to consignment of live animals for direct slaughter or other purposes.*

*Following the emergency protective vaccination on 31/12/2023, as per the instructions of Delegated Regulation EU 2023/361 in Annex IX, Part 4, an 8 months recovery period with surveillance activities will need to be implemented to demonstrate the absence of LSD occurrence in Greece. During this period, clinical and laboratory activities will be conducted on unvaccinated animals to provide evidence of LSD eradication.*

- k) The summary of the characteristics of the vaccine, including the name of the product(s) and the name of the manufacturer(s), and routes of administration;

*Vaccination is conducted exclusively with a homologous live attenuated vaccine against LSD the “Lumpyvax” by MSD Animal Health-Intervet, South Africa, 1 ml per animal subcutaneously. Each 1 ml (1 dose) of the vaccine contains  $10^4$  TCID<sub>50</sub> of freeze-dried, live, attenuated virus (SIS Neethling-type). Immunity starts to develop about 10 days after immunization and animals should be fully protected after 3 weeks. The vaccine offers immunity for a year and therefore, annual re-vaccination is required. A 28 days standstill of vaccinated animals is compulsory after vaccination {three (3) weeks to full disease protection and one (1) week to cover the maximum disease incubation period}.*

- l) Indication if the vaccine is used in accordance with Article 110(2) of Regulation (EU) 2019/6;

*The Hellenic National Organization for Medicines (EOF), according to Regulation (EU) 2019/6, has approved by exception the import and use of a specific live homologue vaccine for Lumpy Skin Disease, upon the request of the CCVA and the submission of relevant documentation by the companies/producers (Approval Documents in the Third Country etc): This is the “Lumpyvax” by MSD Animal Health-Intervet, South Africa.*

- m) The details of the reinforced clinical and laboratory surveillance referred to in Article 9, point 1(c) and Article 10, point 2(b);

*Clinical surveillance for LSD is conducted only in kept bovine animals as part of mandatory clinical examinations during planned activities throughout the year, such as animal movements, slaughters, eradication programs for Bovine Brucellosis, Enzootic Bovine Leucosis and Tuberculosis and prior to their emergency protective LSD vaccination. In wild animals clinical and laboratory surveillance is not applied.*

- n) The hygiene and biosecurity rules to be applied;

*Established protocols emphasize the critical importance of maintaining a sterile environment for optimal vaccination outcomes. Before use, equipment is subjected to a 15-minute boiling process, steering clear of disinfectants to prevent residue. The vaccine is carefully stored in a cool, shaded space, adhering to disposal regulations post-vaccination. The vaccine must be stored at 2°- 8°C. Containers, once opened, mandate the use of their entire contents, eliminating the storage of partially used ones. When handling the vaccine, practitioners adhere to stringent hygiene practices to avert personal contamination. These practices, ingrained in established procedures, assure the vaccine's integrity, fortifying its efficacy and contributing to the seamless success of vaccination initiatives.*

- o) The record keeping system on the vaccination;

*The LSD vaccination database is used for monitoring the vaccination campaign and functions as a tool for data extraction, with the aim to detect problems at local and national level.*

*It is an online digital database designed for the registration of vaccinations by official veterinarians. It is a back office application which interconnects with the central database of the IRT system, ensuring monitoring of the programme.*

*Users of the LSD vaccination database are authorized by specific administrators at local and central level. Database users in the Veterinary Services of the Regional Units have access to vaccination data at local level, whilst users in the CCVA have access to information at national level.*

*Vaccination data are registered in the national LSD Vaccination Database. Official Veterinarians in the Veterinary Authorities of the RUs are authorized to register vaccination data in the area of their jurisdiction. Monitoring of data registration, vaccination coverage and all matters involved is being performed by official veterinarians and IT staff in the CCVA.*

- p) The restrictions on movements of vaccinated animals and products thereof and other risk-mitigating measures to control the potential spread of disease to be put in place and their duration in addition to those provided for in this Regulation;

*Not applicable.*

- q) Communication campaign to be put in place to inform operators and the public about the vaccination, including the safety for human consumption of products of animal origin from vaccinated animals of listed species;

*A conference in high risk areas under the aegis of Region of Eastern Macedonia and Thrace will be held in October 2023 to inform all stakeholders and the public about the importance of vaccination, the safety of human consumption products from vaccinated animals, and the benefits of a vaccination campaign contributing to sustainable agriculture. This campaign aims to secure a safe and abundant food supply for our communities. Posters and leaflets will be distributed to all stakeholders.*

- r) Other matters deemed appropriate to the situation by the competent authority.

*Passive surveillance is in place for all animals of susceptible species throughout the entire Greek territory. All clinical suspicions in bovine animals and buffaloes are investigated through testing with molecular techniques to verify the presence or absence of the LSD virus. The NRL has developed a DIVA real-time PCR method that differentiates the field strain (wild strain) from the vaccine strain.*

*Active surveillance is implemented within the framework of the programme for Transboundary Animal Diseases (TADs) such as FMD, LSD, PPS, and SGP. This is conducted in specific Regional Units (RUs) in Regions defined as High-Risk Areas, namely Eastern Macedonia and Thrace, Central Macedonia, and specific islands in the Northern/Southern Aegean that border Turkey. Active surveillance involves clinical examinations of a specific number of bovine holdings per month (Map 3).*

*Clinical surveillance is applied to all bovine herds, including clinical investigations for the presence of characteristic clinical signs of the disease. This occurs both prior to LSD vaccination and during the implementation of Bovine Brucellosis/TB/Enzootic Bovine Leukosis Eradication Programmes. Individual bovine animals undergo clinical examination before being dispatched for trade purposes and/or slaughter.*

*Each year a Joint Ministerial Decision (Ministry of Rural Development and Food and Ministry of Financial Affairs) determines the way of calculation of compensation for farmers.*

*The issuance of the aforementioned Joint Ministerial Decision is carried out by the Department of Infectious and Parasitic Diseases of the Animal Health Directorate of the Directorate General of Veterinary Services of the Ministry of Rural Development and Food.*

*Also a Joint Ministerial Decision (HMRDF and Ministry of Financial Affairs) concerning the cost of payrolls for seasonal staff, along with the corresponding decision from the Ministry of Interior regarding the renewal of contracts for seasonal personnel, aims to address understaffing issues in regional units to successfully implement the vaccination program.*

## ANNEX

### **INFORMATION REGARDING GEOGRAPHICAL DISTRIBUTION OF THE VACCINATION AND SURVEILLANCE PROGRAMME FOR LUMPY SKIN DISEASE IN GREECE**

*In the following Maps, we present information regarding the geographical distribution of the vaccination and active surveillance programme for Lumpy Skin Disease implemented in Greece in 2023.*



**Map 1.** Administrative division of Greece in Regions (formerly referred to as Peripheries).



**Map 2.** Administrative division of Greece in Regional Units (formerly referred to as Nomoi, equal to Prefectures).



**Map 3.** Regional Units in Greece where the TADs programme including active surveillance for Lumpy Skin Disease is implemented.