



Ministero della Salute

Lumpy skin disease in Italy

GF-TADs

3 July 2025



First suspected case in Sardinia region



Date: 20/6

- Report to the Veterinary Service of Nuoro province: 5 out of 131 cattle showed clinical symptoms in an extensive bovine facility in Orani.
 - Blood in EDTA, serum, saliva, ocular-conjunctival and buccal swabs collected and sent to the competent Istituto Zooprofilattico Sperimentale (IZS).
 - Animals tested positive on blood and saliva with generic real-time PCR for capripox.

Date: 21/6

Positivity confirmed by CESME (National reference lab for the exotic disease) on all matrices with specific LSD PCR.

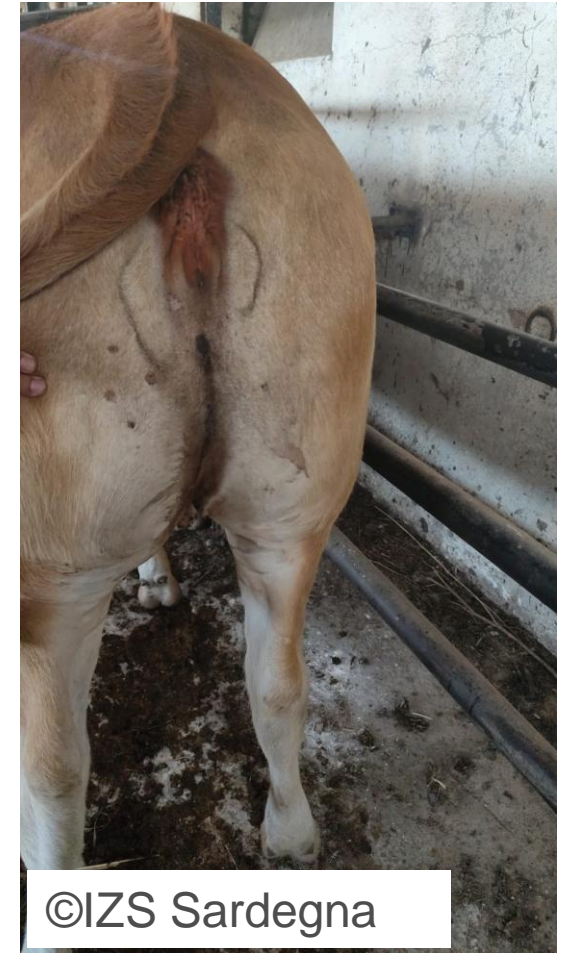
Second suspected case in Sardinia region

22/6: Suspicion in Orotelli (Nuoro province): 9 out of 33 beef cattle showed symptoms. Tested animals were positive.



Further developments in Sardinia region

- **25/06**: Suspicion in two farms in the municipality of Ossida (6 animals) and one in Nuoro (2 animals); PCR tests on blood were negative.
 - **26/06**: Suspicion in Orani in 2 out of 34 beef cattle. Animals tested positive.
- **27/06**: Suspicion in Bottidda (Sassari province): 1 out of 502 cattle tested positive.
- **30/06**: Suspicion in Oniferi (6/73 animals) and Sarule (2/48 animals). Animals tested positive.



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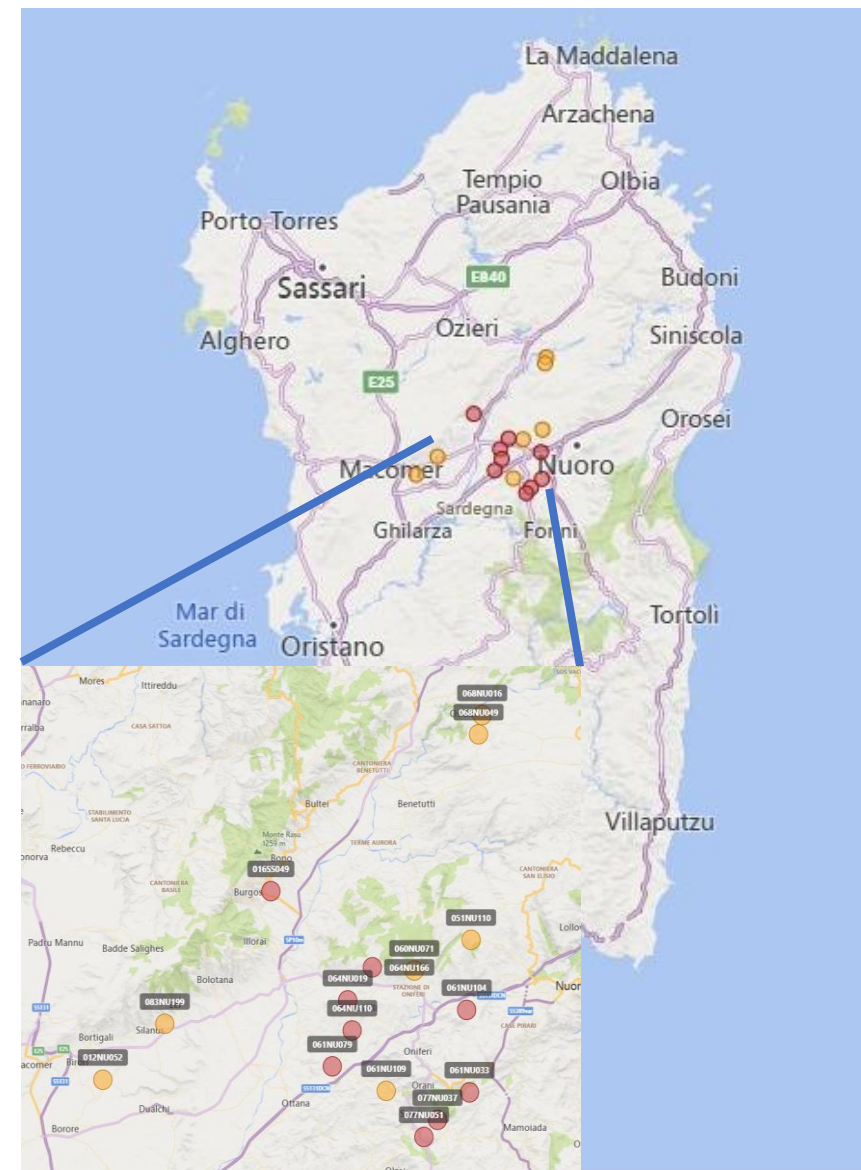
Current situation in Sardinia region (2nd July)

STATO FOCOLAIO	Asl	Comune	Stabilimento	Data Sospetto	Data Conferma	Presenti	Casi	Sintomi Clinici	Morti	Abbattuti
● ATTIVO	3 NUORO	ORANI	061NU104	20/06/2025	21/06/2025	131	21	21	1	20
● ATTIVO	3 NUORO	OROTELLI	064NU019	22/06/2025	25/06/2025	33	9	9	3	6
● SOSPETTO	3 NUORO	NUORO	051NU110	25/06/2025		98	2	2	0	0
● SOSPETTO	3 NUORO	OSIDDA	068NU016	25/06/2025		32	3	3	0	0
● SOSPETTO	3 NUORO	OSIDDA	068NU049	25/06/2025		54	3	3	0	0
● ATTIVO	3 NUORO	ORANI	061NU033	26/06/2025	26/06/2025	34	5	5	0	5
● ATTIVO	1 SASSARI	BOTTIDDA	016SS049	27/06/2025	27/06/2025	502	1	1	0	1
● ATTIVO	3 NUORO	ORANI	061NU079	30/06/2025	30/06/2025	19	1	0	0	0
● ATTIVO	3 NUORO	OROTELLI	064NU110	30/06/2025	01/07/2025	82	4	3	1	0
● ATTIVO	3 NUORO	OROTELLI	064NU166	30/06/2025	01/07/2025	17	7	6	1	0
● ATTIVO	3 NUORO	SARULE	077NU037	30/06/2025	30/06/2025	48	2	2	0	0
● ATTIVO	3 NUORO	SARULE	077NU051	30/06/2025	01/07/2025	56	1	1	0	0
● SOSPETTO	3 NUORO	ONIFERI	060NU071	30/06/2025		73	6	6	0	0
● SOSPETTO	3 NUORO	ORANI	061NU109	01/07/2025		24	6	6	0	6
● SOSPETTO	3 NUORO	SILANUS	083NU199	01/07/2025		5	2	2	0	0
● SOSPETTO	3 NUORO	BORTIGALI	012NU052	02/07/2025		35	1	1	0	0
Totale						1243	74	71	6	38

Culling action ongoing

Mortality 0,48%

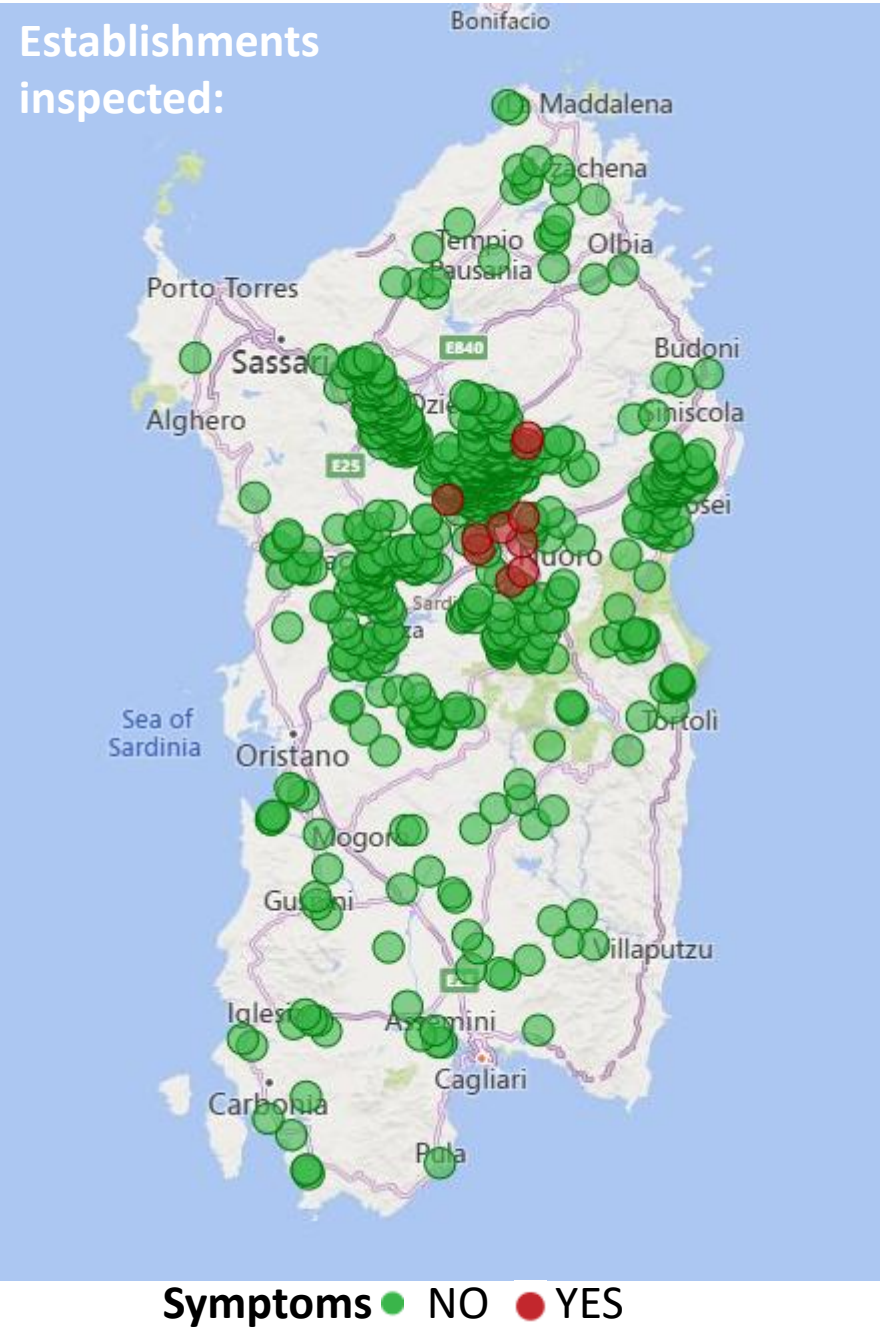
Morbidity 5,95%



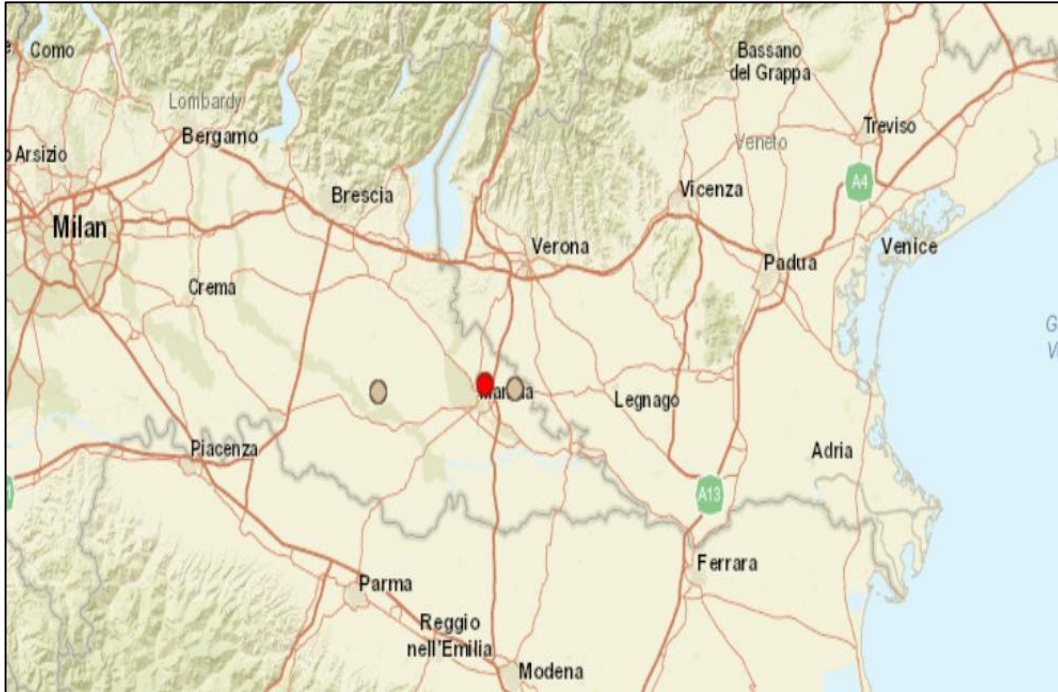
Status outbreak ● active ● suspected

Action ongoing-Clinical surveillance until
01/07/2025 in Sardinia region:

ASL	No. Establishments inspected	Establishments with symptoms	No. animals inspected
SASSARI	253	1	8,358
GALLURA	20	-	687
NUORO	179	9	8,438
OGLIASTRA	27	-	1,212
ORISTANO	64	-	5,472
MEDIO CAMPIDANO	9	-	-
SULCIS	10	-	1,18
CAGLIARI	28	-	1,736
Total	599	10	27,266




First case in Lombardia region



- **23/6:** As part of tracing from the Orani outbreak, 24 beef cattle were sampled in Porto Mantovano (MN) and 8 in Cella Dati (CR).
- One animal in Porto Mantovano tested positive via PCR at CESME on 24/06 and again on 25/06.
- All the animals (284) have been immediately killed and the holding cleaned and disinfected.

26/06: Suspicious lesions in two facilities in Mantua Province:
San Giorgio Bigarello - Canneto sull'Oglio
Animals with lesions tested negative.

Risultati trovati 1, Visualizzati da 1 a 1

Data Ingresso	Specie	Categoria	Capi Presenti	Casi	Capi Morti	Capi Abbattuti	Capi Macellati	Operazioni
25-06-2025	BOVINO		285	1	1	284	0	

EUVET mission for LSD in Italy on the 26-27 June



Current epidemiological situation in Italy

Stato	Anno e Numero	Malattia	Provincia	Comune	Data Sospetto ▲	Data Conferma	Codice Azienda	Oper.
	2025/0001	Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	NUORO	ORANI	20-06-2025	21-06-2025	061NU104	
	2025/0003	Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	NUORO	OROTELLI	22-06-2025	25-06-2025	064NU019	
		Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	NUORO	NUORO	25-06-2025		051NU110	
		Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	NUORO	OSIDDA	25-06-2025		068NU016	
		Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	NUORO	OSIDDA	25-06-2025		068NU049	
	2025/0002	Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	MANTOVA	PORTO MANTOVANO	25-06-2025	25-06-2025	045MN057	
		Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	MANTOVA	CANNETO SULL'OGGIO	26-06-2025		008MN016	
		Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	MANTOVA	SAN GIORGIO BIGARELLO	26-06-2025		004MN041	
		Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	TARANTO	CRISPIANO	26-06-2025		004TA033	
	2025/0004	Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	NUORO	ORANI	26-06-2025	26-06-2025	061NU033	
	2025/0005	Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	SASSARI	BOTTIDDA	27-06-2025	27-06-2025	016SS049	
		Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	PERUGIA	NORCIA	28-06-2025		035PG185	
		Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	MANTOVA	GOITO	30-06-2025		026MN279	

		Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	REGGIO EMILIA	CASTELNOVO DI SOTTO	30-06-2025		015RE063	
		Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	MANTOVA	MOGLIA	30-06-2025		035MN332	
		Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	NUORO	ONIFERI	30-06-2025		060NU071	
	2025/0008	Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	NUORO	OROTELLI	30-06-2025	01-07-2025	064NU166	
	2025/0010	Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	NUORO	SARULE	30-06-2025	01-07-2025	077NU051	
	2025/0009	Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	NUORO	OROTELLI	30-06-2025	01-07-2025	064NU110	
	2025/0007	Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	NUORO	SARULE	30-06-2025	30-06-2025	077NU037	
	2025/0006	Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	NUORO	ORANI	30-06-2025	30-06-2025	061NU079	
		Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	NUORO	ORANI	01-07-2025		061NU109	
		Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	NUORO	SILANUS	01-07-2025		083NU199	
		Dermatite Nodulare Contagiosa (Lumpy Skin Disease)	NUORO	BORTIGALI	02-07-2025		012NU052	



Suspect (7)



Not confirmed (7)

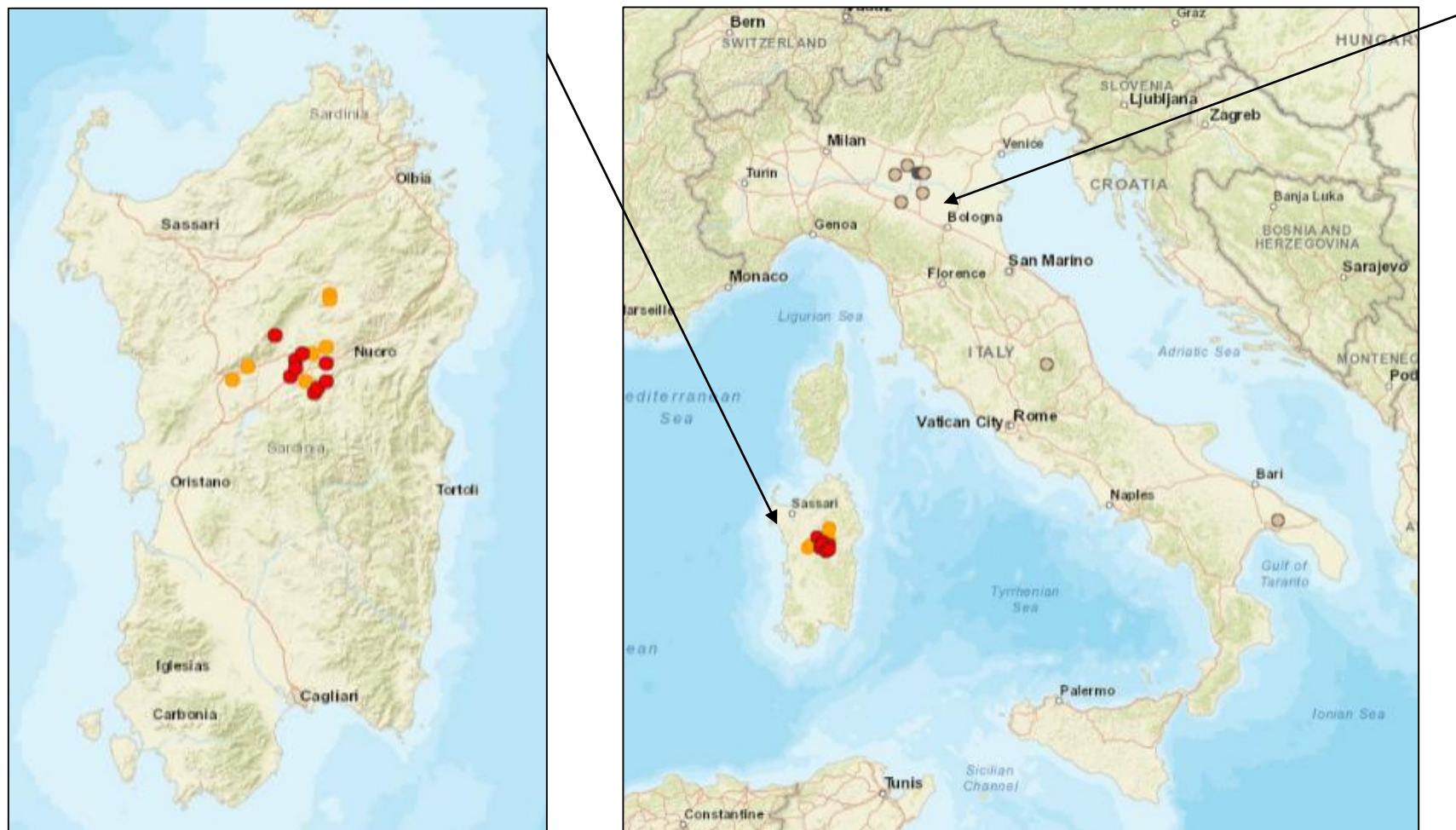


Confirmed (9)



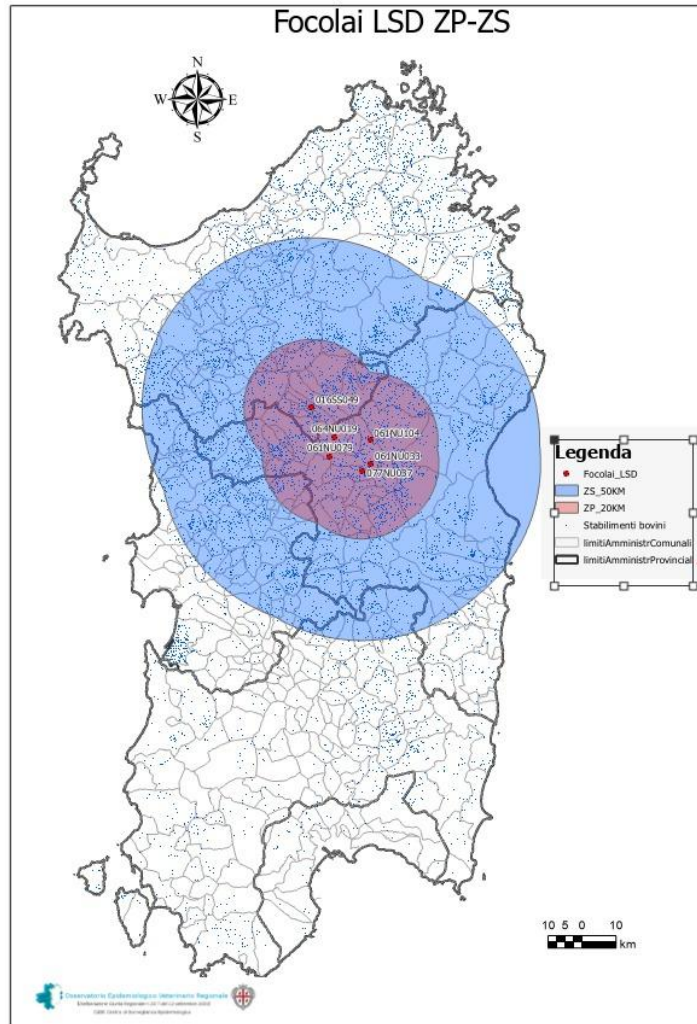
Solved (1)

Current epidemiological situation in Italy



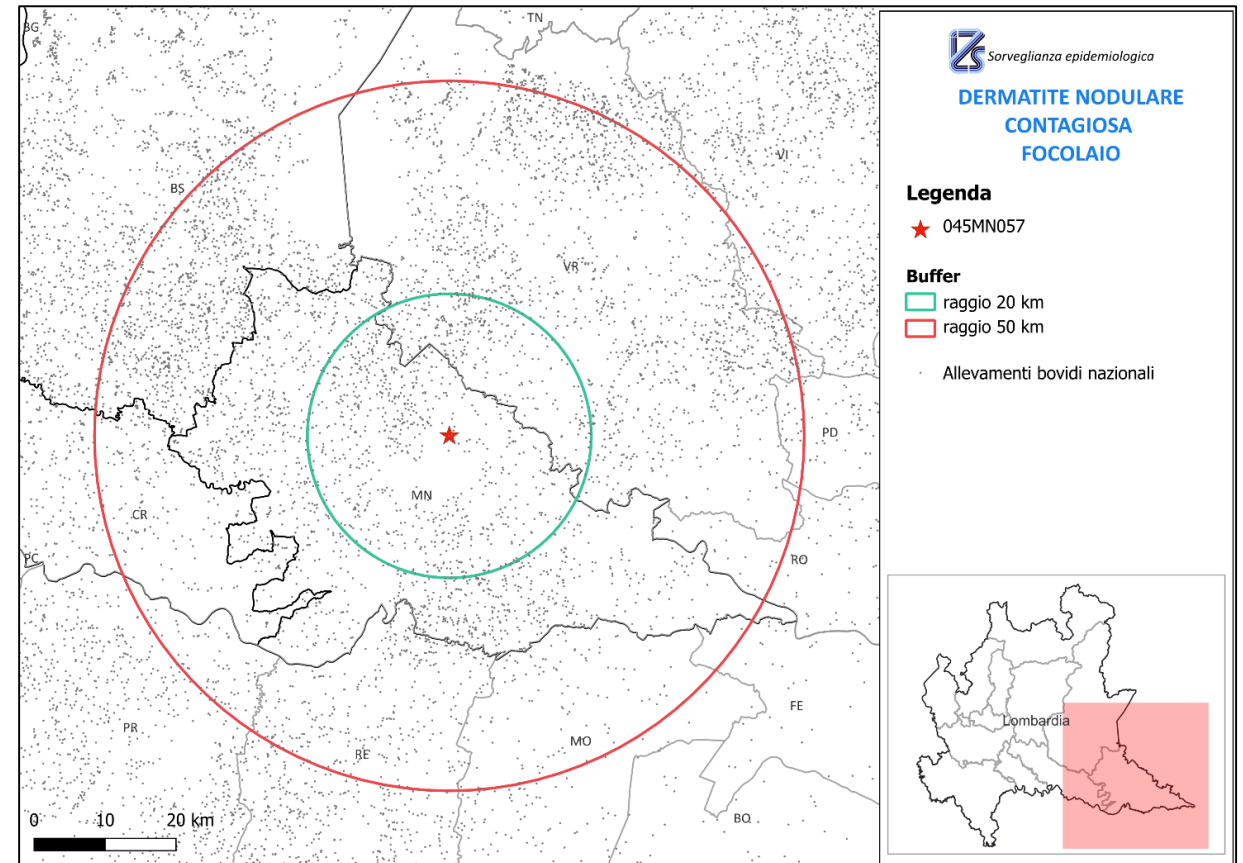
Restricted zones

Sardegna



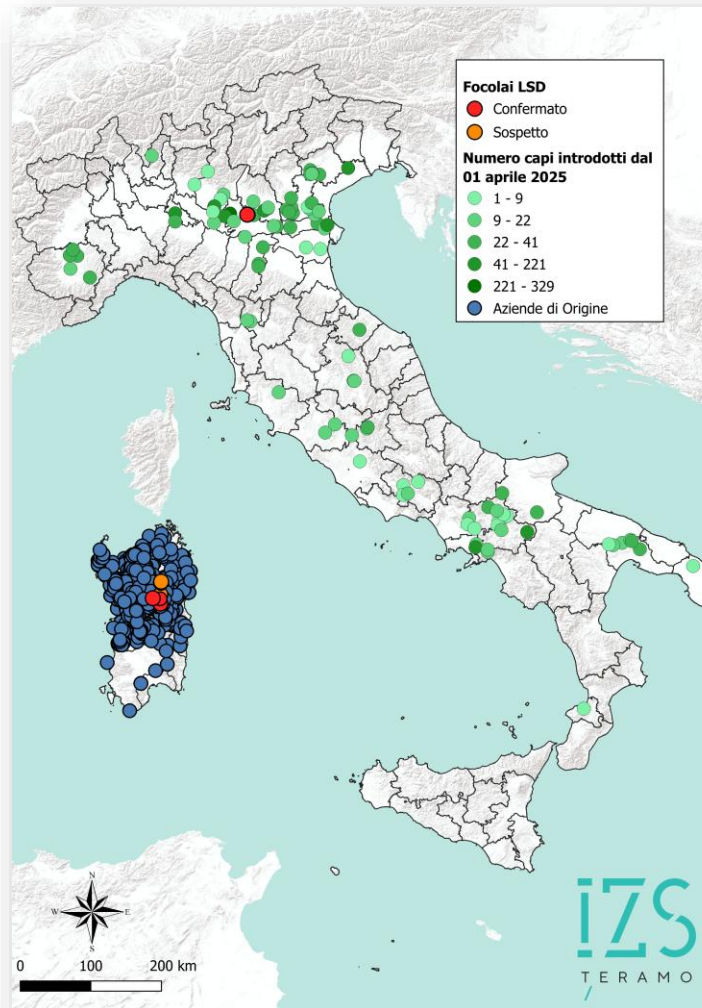
RAS AOO 12-01-00 Determinazione n. 672 Prot. Uscita n. 17433 del 27/06/2025

Lombardia (Emilia-Romagna and Veneto)



prot. 19024-27/06/2025-DGSA-MDS-P

Trace back from Sardinia



Farms in mainland Italy that received animals from Sardinia in the timeframes considered and those in restricted areas are undergoing clinical examination. There are no shipments from Sardinia to other Member States

Additional national measures

Forbidden bovine movement from protection and surveillance zone

Derogation to slaughterhouse:

- artt. 29 e 44 Regulation (UE) 2020/687;
- Clinical visit for all the the bovines;
- Biosecurity measures during transport and slaughter phase;
- Slaughter 24 hrs from the arrival to the slaughterhouse.

Derogation for the movement of live animals to holdings within restricted zone:

- For animal welfare reason;
- With Clinical visit AND
- Negative PCR

Within the free areas: Authorisation for the issuing of animal transport document

Not listed species: mitigation measures, disinfestation of the means of trasport and application of insects repellents

Infection Timeline and Spread Hypothesis

- Lesion dating suggests virus introduction occurred ~**3 months** before first detected cases.
- Due to intra-regional movements, infection across the **whole region** cannot be ruled out.
- So far, the infection's dynamics, entry date, and **origin remain unknown (2 hypothesis)**.
- **Vaccination** across the entire island is deemed the best approach to control the outbreak. For Mantua is under evaluation vaccination strategy for RZ.

Clinical visits

- On Friday, June 27, the Ministry transmitted the list of farms to be subjected to clinical inspections in the coming days.
- Instructions were provided for sending information to local veterinary services (OEVR), which will forward them to the National Reference Centre.
- A system for uploading this information to the **VetInfo** portal will soon be available, allowing activity tracking.

	A	B	C	D
1	CODICE_AZIENDA	DATA_VISITA	CAPISITATI	SINTOMI
2				
3				

- The alert level must be **at its highest**.
- In all suspected cases (presence of skin lesions), **priority should be given to sampling crusts or performing nodule biopsies**.

Diagnostic procedure

- PCR in competent IZS: Non-species-specific assay, that detects the three Capripoxvirus genera (SPPv, GTPv, and LSDv) without differentiating them (Matrices: skin lesions, blood in EDTA, serum, swabs)
- CESME: A real-time PCR assay capable of amplifying a nucleic acid fragment belonging to the Lumpy Skin Disease virus (LSDv). This method is specific for LSDv but does not discriminate between wild-type LSDv, vaccine LSDv, and recombinant LSDv (Matrices: skin lesions, blood in EDTA, swabs)
- LSDv isolation on MDBK (Bovine Kidney cell line) and OA3Ts (Ovine Testis cell line) on Positive PCR samples (Ct<28),

Vaccination plan

Considering the current epidemiological situation Italy opts to apply the vaccination strategy provided in article 7 (1) (a) (ii) emergency protective vaccination, implemented in response to an outbreak of a category A disease, which is carried out in any of the following cases:

— on terrestrial animals at risk of infection that are kept in establishments located in affected Member States or zones thereof, in which category A diseases have not been confirmed nor are suspected in accordance with Article 6(1) of the Regulation (UE) 2023/361 and Article 11 of Delegated Regulation (EU) 2020/687.

(c) species of animals that will be vaccinated, specifying if wild animals will be included;

Domestic bovines. No wild animals will be included in the vaccination plan.

(d) estimated number of animals that will be vaccinated;

300.000 heads.

(e) estimated duration of the vaccination;

3 months

(f) type and commercial name of the vaccine applied, including the indication if the vaccine will be used in accordance with Article 110(2) of Regulation (EU) 2019/6;

OBP lumpy skin disease Onderstepoort South Africa.

(g) description of the estimated vaccination zone

The entire Sardinia region.

Whole Genome Sequencing



Sampling from 3 animals (same cattle farm)



DNA Extraction from blood, serum and saliva



RealTime PCR



	Matrix	Ct
Bovine 1	Blood	24,8
	Saliva	23,4
Bovine 2	Serum	28,3
	Saliva	26,6
Bovine 3	Saliva	28,3

Next Generation Sequencing

From saliva sample (Bovine 1)

- NextSeq2000 platform
- Illumina DNA Library Prep kit
- 1000/2000 P1 (30Gb) XLEAP-SBS reagents
- 300 cycles (2 × 150 bp)

Illumina technology



Bioinformatics analyses



Sample	Raw reads (n)	Trimmed reads (n)	Mapped reads (n)	Vertical Coverage	Horizontal Coverage	Consensus_Length
Bovine 1_saliva	36585960	24122474	5892	5,9181	0,984195	150662

Phylogenetic analyses using genomic sequences from public databases are underway

Phylogenetic analysis

The LSDV Sardegna 2025 strain has a higher nucleotide similarity with an LSDV strain identified in Africa in 2018 and is related to other African sequences described in Namibia and South Africa between 2010 and 2022.

The LSDV **sequences available in public databases are few**, dated and often of low quality which makes comparative analyses difficult.

THANKS



Ministero della Salute