



**STANDING COMMITTEE ON AGRICULTURE, ANIMAL HUSBANDRY
AND FOOD PROCESSING**

(2023-24)

SEVENTEENTH LOK SABHA

**MINISTRY OF FISHERIES, ANIMAL HUSBANDRY AND DAIRYING
(DEPARTMENT OF ANIMAL HUSBANDRY AND DAIRYING)**

**SPREAD OF LUMPY SKIN DISEASE IN CATTLE IN THE COUNTRY AND ISSUES
RELATED THEREWITH**

SIXTY-SIXTH REPORT



**LOK SABHA SECRETARIAT
NEW DELHI**

DECEMBER, 2023 /AGRAHAYANA 1945 (SAKA)

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RELATED THEREWITH'

Presented to Lok Sabha on 19.12.2023

Laid on the Table of Rajya Sabha on 19.12.2023



LOK SABHA SECRETARIAT
NEW DELHI

DECEMBER, 2023 /AGRAHAYANA 1945 (SAKA)

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<CONTENTS>

	PAGE No.
COMPOSITION OF THE COMMITTEE (2022-23).....	(iii)
COMPOSITION OF THE COMMITTEE (2023-24).....	(iv)
INTRODUCTION.....	(vi)

REPORT

	Page No.
Part-I	
Introductory	1
Advent and Spread of Lumpy Skin Disease in the Country	1
Latest Status in respect of Lumpy Skin Disease (LSD)	4
Causes of the Outbreak and Spread	6
Tackling (Control and Containment) of Lumpy Skin Disease	7
Vaccination	8
Bio-security Measures and Vector Control	10
Disposal of Carcasses	11
Raising awareness for prevention and precautions against Lumpy Skin Disease	12
Ethno-Veterinary Medicine and Treatment	14
Availability of Funds	16
Veterinary Infrastructure and Veterinary Manpower	18
Accuracy of data and methodology therein	19
Compensation to Livestock Owners	21
Standard Operating Procedures (SOPs)/Protocol for Lumpy Skin Disease and similar other Outbreaks	22
Part-II	
Observations/Recommendations of the Committee	23

ANNEXURE

I.	GUIDELINES FOR PREVENTION OF LSD (LUMPY SKIN DISEASE)	29
II.	INDICATIVE MANAGEMENT AND TREATMENT OF LUMPY SKIN DISEASES (LSD) IN ANIMALS	36

APPENDICES

I.	Minutes of the 3rd Sitting of the Committee (2022-23) held on 20th December, 2022	39-43
II.	Minutes of the 3rd Sitting of the Committee (2023-24) held on 13th December, 2023	44-45

**COMPOSITION OF THE STANDING COMMITTEE ON AGRICULTURE, ANIMAL
HUSBANDRY AND FOOD PROCESSING (2022-23)**

Shri P.C. Gaddigoudar- Chairperson

MEMBERS

LOK SABHA

2. Shri Horen Sing Bey
3. Shri A. Ganeshamurthi
4. Shri Kanakmal Katara
5. Shri Abu Taher Khan
6. Shri Ram Mohan Naidu Kinjarapu
7. Shri Mohan Mandavi
8. Shri Devji Mansingram Patel
9. Smt. Sharda Anilkumar Patel
10. Shri Bheemrao Baswanthrao Patil
11. Shri Shrinivas Dadasaheb Patil
12. Shri Vinayak Bhaurao Raut
13. Shri Pocha Brahmananda Reddy
14. Shri Rajiv Pratap Rudy
15. Mohammad Sadique
16. Shri Devendra Singh *alias* Bhole Singh
17. Shri Virendra Singh
18. Shri V.K. Sreekandan
19. Shri Ram Kripal Yadav
20. VACANT[#]
21. VACANT^{*}

RAJYA SABHA

22. Smt. Ramilaben Becharbhai Bara
23. Shri Masthan Rao Beeda
24. Dr. Anil Sukhdeorao Bonde
25. Shri S. Kalyanasundaram
26. Shri Surendra Singh Nagar
27. Shri Kailash Soni
28. Shri Randeep Singh Surjewala
29. Shri Ram Nath Thakur
30. Shri Vaiko
31. Shri Harnath Singh Yadav

** Vacant w.e.f. 10.10.2022 due to demise of Shri Mulayam Singh Yadav on 10.10.2022 - Bulletin-Part II, Para No. 5316 dated 14.10.2022.*

Vacant w.e.f.29.04.2023 due to disqualification of Shri Afzal Ansari from Lok Sabha Membership from the date of his conviction in terms of the provision of Article 102(1)(e) of the Constitution of India read with Section 8 of the Representation of the People Act, 1951.

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28. Shri Ram Nath Thakur
29. Shri Vijay Pal Singh Tomar*
30. Shri Vaiko
31. Shri Harnath Singh Yadav

* Shri Vijay Pal Singh Tomar, MP, Rajya Sabha has been nominated to the Committee *vide* Bulletin Part-II, Para No. 7523 dated 29.09.2023 *vice* Shri Surendra Singh Nagar *w.e.f.* 26.09.2023

SECRETARIAT

- | | | | |
|----|----------------------------|---|----------------------|
| 1. | Shri Shiv Kumar Wadhawan | - | Additional Secretary |
| 2. | Shri Uttam Chand Bharadwaj | - | Director |
| 3. | Shri Prem Ranjan | - | Deputy Secretary |

INTRODUCTION

I, the Chairperson, Standing Committee on Agriculture, Animal Husbandry and Food Processing (2023-24), having been authorized by the Committee to submit the Report on their behalf, present this Sixty-Sixth Report on the Subject 'Spread of Lumpy Skin Disease in Cattle in the Country and issues related therewith' of the Ministry of Fisheries, Animal Husbandry and Dairying (Department of Animal Husbandry and Dairying).

2. The Standing Committee on Agriculture, Animal Husbandry and Food Processing had selected the Subject for examination during 2022-23. Briefing on the Subject by the representatives of the Ministry of Fisheries, Animal Husbandry and Dairying (Department of Animal Husbandry and Dairying) was held at their Sitting on 20.12.2022. As the examination of the Subject could not be completed during 2022-23, the Subject was again selected for examination by the Committee during 2023-24.

3. The Report was considered and adopted by the Committee at their Sitting held on 13.12.2023.

4. For facility of reference and convenience, the Observations/ Recommendations of the Committee have been printed in bold at Part-II of the Report.

5. The Committee wish to express their thanks to the representatives of the Ministry of Fisheries, Animal Husbandry and Dairying (Department of Animal Husbandry and Dairying) for appearing before the Committee and furnishing requisite information in connection with the examination of the Subject.

6. The Committee would also like to place on record their deep sense appreciation for the invaluable assistance rendered to them by the officials of Lok Sabha Secretariat attached to the Committee.

NEW DELHI;
13 December, 2023
22 Agrahayana, 1945 (Saka)

P.C. GADDIGOUDAR
Chairperson,
Standing Committee on Agriculture,
Animal Husbandry and Food Processing

REPORT

PART I

Introductory

Lumpy Skin Disease (LSD) is an infectious viral disease pertaining to Cattle and Buffaloes, transmitted by vectors like mosquitoes, biting flies, ticks, etc. and can be transmitted by touch also. The disease is characterized by mild fever for 2-3 days followed by development of stiff, round cutaneous nodules on the skin - all over the animal's body. Morbidity rate is around 10-20%, the mortality rate is around 1-5%. Animal Recovery Time is 2-3 Weeks and the treatment is symptomatic.

Advent and Spread of Lumpy Skin Disease in the Country

1.2. Lumpy Skin Disease was initially in the recent past suspected from Odisha based on the Test Report of the Indian Veterinary Research Institute (IVRI), Bareilly. Team of scientists from Indian Council of Agricultural Research - National Institute of Veterinary Epidemiology & Disease Informatics (ICAR-NIVEDI) Bengaluru, Indian Council of Agricultural Research - National Institute of High Security Animal Disease (ICAR-NIHSAD), Bhopal and ICAR-IVRI, Bareilly was constituted in August 2019 for investigation of suspected Lumpy Skin Disease and Capripox disease in Odisha. Centre for Animal Disease Research and Diagnosis (CADRAD), IVRI and College of Veterinary Sciences and Animal Husbandry (CoVSc), Odisha University of Agriculture and Technology (OUAT) confirmed the presence of Capripox virus by Office International des Epizooties (OIE) prescribed Polymerase Chain Reaction (PCR) in the animals. ICAR-NIHSAD, Bhopal the Designated Laboratory for diagnosis of exotic diseases, also confirmed the disease in the state of Odisha by PCR and nucleotide sequencing using the OIE prescribed methods for LSD agent identification. Accordingly, Report on LSD was submitted to OIE on 18.11.2019.

1.3. The Department further took immediate and proactive steps to control the Lumpy Skin Disease and Capripox disease in Odisha and other states. Directions were also issued to National Institute of High Security Animal Disease (NIHSAD), Bhopal and National Institute of Veterinary Epidemiology & Disease Informatics (NIVEDI), Bangalore to carry out the Epidemiological Investigation in the States of West Bengal, Bihar,

Jharkhand, Telangana, Andhra Pradesh and Karnataka. The Ring Vaccination Strategy with available Goat pox vaccine was also communicated to be carried out in and around affected villages in Odisha and to complete the entire operation in definite time line. Advisory developed by the Department in consultation with the ICAR Institutes (ICAR-IVRI and ICAR-NIHSAD) has also issued to all states/UTs for taking bio-security measures and necessary advice to all stake holders including farmers. Advisory also was sent to the States of Bihar, Chhattisgarh, West Bengal and Odisha regarding starting of clinical surveillance and vetting of seed virus by Indian Veterinary Research Institute (IVRI) for field application. The Department also released a sum of Rs. 10 Crore to the affected state of Odisha for taking up ring vaccination. Further, based on the confirmation of LSD by NIHSAD, Bhopal the advisory - in respect of taking bio-security measures and to complete the ring vaccination as per the strategy was sent to other states to control the disease in definite time frame.

1.4. During 2022-23, twenty three states namely Gujarat, Himachal Pradesh, Punjab, Rajasthan, Uttarakhand, Madhya Pradesh, Jammu & Kashmir, Uttar Pradesh, Haryana, Maharashtra, Goa, West Bengal, Andhra Pradesh, Delhi, Bihar, Tamil Nadu, Jharkhand, Karnataka, Telangana, Kerala, Chhattisgarh, Odisha and Sikkim have reported case of Lumpy Skin Disease (LSD).

1.5. State/Union Territory wise details of number of Cattle affected, died, vaccinated and recovered as on 21.02.2023 are as under:-

Update on Lumpy Skin disease (LSD) as on 21.02.2023						
Sl.No.	State/UT	Number of cattle affected	Number of animals died due to LSD	Number of animal vaccinated against LSD	Number of Animals recovered	% of animal recovered
1	Gujarat	176094	6193	6319005	169901	96%
2	Himachal Pradesh	140187	11275	807091	128269	91%
3	Punjab	174927	17932	921615	156995	90%
4	Rajasthan	1567217	76030	10859291	1491187	95%
5	Uttarakhand	36323	921	705808	35402	97%
6	Madhya Pradesh	32580	696	3715303	31884	98%
7	Jammu & Kashmir	71377	2698	1964241	68679	96%

8	Uttar Pradesh	112201	655	15787400	111546	99%
9	Haryana	114844	2938	1736348	111906	97%
10	Maharashtra	454516	34711	14231372	392610	86%
11	Goa	32	1	21895	31	97%
12	West Bengal	60	0	2600	60	100%
13	Andhra Pradesh	1473	276	134840	1098	75%
14	Delhi	828	0	25067	828	100%
15	Bihar	1442	2	12104171	1440	100%
16	Tamil Nadu	204	1	121700	203	100%
17	Jharkhand	169	0	176274	169	100%
18	Karnataka	326487	30973	10112423	272873	84%
19	Telangana	9030	70	3206369	8852	98%
20	Kerala	13335	354	673172	7269	55%
21	Chhattisgarh	10	0	2474	10	100%
22	Odisha	40394	113	4548900	39505	98%
23	Sikkim	32	2	290	30	94%
	Total	3273762	185841	88177649	3030747	93%

1.6. From the information provided by the Department the Committee observed that the instances of Lumpy Skin Disease are rampant in the Western States of Rajasthan, Maharashtra and Gujarat; the Northern States of Punjab, Himachal Pradesh and Haryana; and also in the Southern State of Karnataka as compared to the rest of the country.

1.7. The Committee desired to know the specific reasons behind this particular pattern of spread of the disease, the Department, in its reply, submitted:-

'The States were experiencing the sudden outbreaks of the LSD for the first time in such a large scale. The factors like availability of resources, mobilization of the resources, presence of stray animals with co morbidity, large number of underfed stray animals, coordination between local bodies and state Animal Husbandry Departments, awareness and sensitization, vaccination, movement control of affected animals, movement of sub-clinical animals, long incubation period in some cases, presence of more vectors, long virus survival rate, movement of vehicle and persons handling animals etc affect the pattern and spread of diseases. In some states, extended rains in the later part of the monsoon created stress on the animals compromising their immunity. Also this has created favourable environment for the vector growth at the same time minimizing effectiveness of vector control measures. Under such circumstances the spread of the disease is very fast up to long distances through vectors. However, presently the states are very well aware of the control, treatment and

vaccination guidelines and gained the experience in LSD control programmes which is evident as disease is showing the decreasing trends and is under control with zero active cases in many states and high recovery rates.'

1.8. The Department of Animal Husbandry and Dairying also informed that there is no instance of Lumpy Skin Disease in Buffaloes in the country and also not confirmed by the laboratory diagnosis. However, advisories were issued to the states to protect the buffaloes by adopting strict bio-security measures like isolation from affected cattle, regular disinfection and vector control in the area, provision of nutritional feed and fodder, regular veterinary supervision and care.

1.9. Further no outbreaks of Lumpy Skin Disease (LSD) have been observed in any milch animals such as Goats and other non-conventional sources of milk like Yaks, Camels, etc other than Cattle in the country.

1.10. Regarding the susceptibility of the Indigenous breeds of Cattle *vis-a-vis* other breeds, the Department stated that Indigenous breeds are also susceptible for Lumpy Skin disease infection and degree of severity may not vary breed to breed. The disease is viral in nature and may affect the cattle of any breed. However, malnourished animals with or without co morbidity are more susceptible for the disease. The unhygienic conditions, no preventive vaccination and less care by animals may increase the severity of the disease.

1.11. To a query by the Committee whether spread of Lumpy Skin Disease infection was more in Domestic Cattle as compared to Stray Cattle, the Department stated that there is no scientific evidence and field observation that spread of Lumpy Skin Disease infection was more in domestic cattle as compared to Stray Cattle. The disease is viral in nature and may affect the cattle of any age group. However, malnourished animals with or without co morbidity is more susceptible for the disease.

Latest Status in respect of Lumpy Skin Disease (LSD)

1.12. As per the information provided by the Department, the Committee observe that the Lumpy Skin Disease was presently under control and showing less infection with good recovery and less mortality in affected states indicating the decrease in severity of infection. Active Cases presently are only 14983, which are mainly in animals with co-

morbidity, weak nutritional status, animals under stress and under less care by animal owners and is sporadic in nature. More than 6.02 Crore animals have been vaccinated so far in the affected States and the vaccination and other biosecurity measures are underway.

1.13. The Disease is currently reported in the States given below with - more Active Cases in Maharashtra (Active Cases 10928), Sikkim (1164 Active Cases), Meghalaya (937 Active Cases), Himachal Pradesh (492 Active Cases). Bihar, Uttar Pradesh, Madhya Pradesh, Odisha, Kerala, Uttarakhand, Nagaland are having very less Active Cases (less than 500). The details in respect to animals affected, died, vaccinated, recovered and active cases are stated to be as under:-

Update on Lumpy Skin disease (LSD) as on 30.10.2023						
Sl.No.	State/UT	Number of animals affected Cumulative (till date) during the year 2023	Number of animals died Cumulative (till date) during the year 2023	Number of animals vaccinated Cumulative (till date) during the year 2023	Number of animals recovered Cumulative (till date) during the year 2023	Total active cases
1	Bihar	13655	4	13679792	13305	346
2	Uttar Pradesh	10763	69	15917200	10277	417
3	Odisha	11128	8	3003800	11053	67
4	Meghalaya	8739	123	36975	7679	937
5	Himachal Pradesh	9453	985	794193	7976	492
6	Kerala	12731	674	886248	11870	187
7	Madhya Pradesh	10850	81	9888309	10739	30
8	Maharashtra	169620	16820	14280493	141872	10928
9	Uttarakhand	23864	786	1648109	23073	5
10	Sikkim	15500	2714	79714	11622	1164
11	Nagaland	981	49	1782	522	410
	TOTAL	287284	22313	60216615	249988	14983

1.14. On this aspect, the Department further submitted that it was taking all necessary steps including funding and technical support for timely control and prevention of LSD in the country. However, the field implementation lies with the State Governments as Animal Husbandry is the State Subject. The Central Teams are being deputed regularly for on

ground monitoring and technical inspections in the States/UTs for better field implementation of control strategies to control the disease in a definite time-line.

Causes of the Outbreak and Spread

1.15. The causes for the sudden outbreak and spread of this disease in Cattle in the recent past are related to factors like adaptation of virus in the environment, increase of in vector population due to rainy season, delay in adopting the bio-security measures and vaccination by the states as per Central guidelines/advisories, presence of secondary infections in the animals, delay/lack of movement restrictions of affected/sub clinical animals by the states and presence of large number of stray animals in some States.

1.16. To a query of the Committee asked about the specific causes of the excessive outbreak of the Lumpy Skin Disease (LSD) in the State of Rajasthan and whether the disease spread to other parts of the country from there, the Department stated the same causes of the spread as stated above and also informed that there is no evidence that the disease spread to other parts of the country from Rajasthan as the virus was present in other states also and the states delayed the implementation of bio-security measures and vaccination including the movement control of affected/sub-clinical animals. However, the spread of infection from the state of Rajasthan to the bordering districts of other states was possible due to movement of stray animals and lack of strict movement control of affected/sub-clinical animals.

Tackling (Control and Containment) of Lumpy Skin Disease

1.17. In this regard the Committee were informed that the Department of Animal Husbandry & Dairying, Government of India has taken all necessary steps to support States / UTs to control and contain LSD which include financial and technical support. Central teams also visited the states / UTs and physical and virtual meetings are conducted to sensitize the states / UTs authorities. The Guidelines/Advisories for control of LSD including vaccination have been circulated to States / UTs for implementation so as to control and contain the disease within a definite timeline (**Annexure I & II**). Disease is presently showing less infection and death in affected states indicating the decrease in severity of infection.

1.18. The Committee were further apprised that all the concerned States/UTs have been asked to adopt carpet and controlled vaccination strategy with available Goat pox vaccine (Uttarakashi strain) in cattle with immediate effect. Department deputed Central teams comprising Departmental veterinarians and Indian Council of Agricultural Research - National Institute of High Security Animal Disease (ICAR-NIHSAD) scientists to the affected states for taking first hand stock of the outbreak of Lumpy Skin Disease (LSD) in coordination with State Animal Husbandry Department for investigations and suggestions in respect to control and containment of LSD in definite time line as per the guidelines. Advisories issued to non-affected states also for awareness and advance preparedness. The Department has established the control room and also advised the States/UTs to establish the control room to address the issues of animal owners including awareness at all times.

1.19. It was added by the Department that the Funds have been provided to affected States for undertaking trainings, awareness campaigns and vaccination under Assistance to States for Control of Animal Disease (ASCAD) as per the demand. States are also advised the possibility to utilize the emergency funds of the state/district for control operations. Financial assistance provided to the States / UT for procurement of vaccines and accessories for control of LSD under Assistance to States for Control of Animal Diseases (ASCAD) during Financial Year 2022-23. Department also communicated the animal certification and identification guidelines under items and norms in regard to eligibility for compensation on animal mortality to Ministry of Home Affairs (MHA) in respect to assistance to states through SDRF and NDRF.

Vaccination

1.20. Vaccination of Cattle was stated to be an important part of the strategy of the Government to tackle the spread of Lumpy Skin Disease among cattle in the country. The detailed protocols for vaccination have been provided in the 'Guidelines for prevention of Lumpy Skin Disease' issued by the Department of Animal Husbandry and Dairying and communicated to the States/Union Territories.

1.21. Replying about the status of availability of vaccine against Lumpy Skin Disease in the country, the Department stated that as per the Central advisories/guidelines, the vaccination of eligible and healthy susceptible cattle is underway by available Goat pox vaccine- Uttarakashi Strain and more than 8.1 crore cattle have been vaccinated. Further, there are no reports of shortage of vaccine in any state or UT.

1.22. Responding to the concern expressed by the Committee about the reasons behind nil vaccination in the State of Bihar and low rates of vaccination in States like West Bengal, Kerala, Goa, Delhi and Tamil Nadu despite there being no shortage of Goat Pox vaccine in the country, the Department stated:

'Based on the Department advisory on control, vaccination and treatment, the States/UTs undertake the vaccination programme by using their manpower and infrastructure including the purchase of the vaccines. Some state took time to mobilize their resources including completing the administrative procedures related to vaccine purchase. However, due to regular communication and follow up with the states/UTs, the vaccination of eligible and susceptible cattle is underway covering almost all eligible and susceptible cattle population as per the state risk plans and priority.'

1.23. On being asked about the steps being taken by the Department to increase vaccine production and to ensure safe administration of vaccine to Livestock in the country, the Department submitted:-

'Department issued the vaccination guidelines and advisories for carpet/preventive vaccination, controlled vaccination along with protocols related to animal eligibility, dose and route of vaccine and measures for safe and effective vaccination. The vaccination is underway with no adverse effect on animals related to LSD vaccination. Department has also asked the vaccine manufacturers to step up production capacity of vaccines from 50 lakhs to 100 lakhs (in case of M/s. IIL) and 150 lakhs to 300 lakhs (in case of M/s. Hester) per month to ensure proper availability of the vaccine. There are no reports of shortage of vaccine from any state/UT.

Indian Council of Agricultural Research (ICAR), Department of Animal Husbandry and Dairying (DAHD) and Central Drugs Control Standard Organization are taking up for early approval and production of an indigenous vaccine 'Lumpi-ProVac^{ind}' against Lumpy Skin Virus. The vaccine technology has been transferred through M/s. Agrinnovate India Limited to two firms, viz. M/s. Biovet Private Limited, Bengaluru and M/s. Indian Immunologicals Limited, Hyderabad.'

1.24. While replying about the present status of development of the indigenous vaccine 'Lumpi Provac^{ind}' and the plans of the Department regarding production and availability of this vaccine for vaccination of Cattle in the Country, the Department stated:

'As gathered from Indian Council of Agricultural Research (ICAR), the commercial manufacturing of the indigenous homologous live attenuated LSD vaccine (Lumpi-Provac^{ind}) has not yet started. Three manufacturers *viz*; Biovet Pvt Ltd., Malur, Bengaluru, Indian Immunologicals, Hyderabad and Institute of Veterinary Biological Products, Pune have got the vaccine technology from ICAR- National Research Centre on Equines (NRCE), Hisar to manufacture the vaccine (Lumpi-Provac^{ind}). The commercial product has been tested by the competent authorities (as per the DCGI guidelines) and the final regulatory approvals are awaited.'

Bio-security Measures and Vector Control

1.25. The Committee were informed that the Guidelines for prevention of Lumpy Skin Disease issued by the Department and circulated to all States/UTs contained comprehensive bio-security measures to be taken to control and contain LSD.

1.26. The Guidelines and advisories circulated to the states also include vector control disinfection and hygiene protocols. States have been asked to undertake vector control programmes in consultation and cooperation with local municipal and panchayat bodies and other stake holders which include regular fogging, disinfection of the area, liming and proper disposal of the carcass. States were advised that the veterinary hospitals and dispensaries should have proper supply of medicines, supplements, disinfectants, treatment accessories, foggers, awareness material, Personal Protective Equipment (PPE) Kits and other related items at all times, door to door awareness and vaccination drive should be undertaken with the help of NGOs, village leaders, youths, cooperatives, school teachers and other stakeholders, the risk areas like high vector population areas, grazing areas, cattle fares/markets, gaushalas, etc. and animal population shall be regularly monitored for any unusual sickness and mortality and if noticed, immediately measures shall be taken as per the DAHD advisory in respect to LSD. The States were also advised to monitor the potential vector activity, presence of vector breeding sites such as lakes, rivers, grazing sites and accordingly necessary action

shall be taken to check the vector populations. Departmental deputed Veterinarians and Indian Council of Agricultural Research scientists to the affected states for taking first hand stock of the outbreak of Lumpy Skin Disease (LSD) in coordination with State Animal Husbandry Department for investigations and suggestions in respect to control and containment of LSD in definite time line as per the guidelines. Department regularly conducted physical and virtual meetings with the States to sensitize the States and take the update of the situation. States are advised to establish the isolation centres for stray and other affected animals with proper bio-security measures and veterinary care. Disinfection and cleaning measures were circulated to the states to carry out the disinfection of premises and vehicles plying through the affected animal holdings with appropriate chemicals / disinfectants [Ether (20%), chloroform, formalin (1%), phenol (2% /15 minutes), sodium hypochlorite (2-3%), iodine compounds (1:33 dilution) and quaternary ammonium compounds (0.5%)]. Further, the States were advised to undertake control of vector population in the area, premises and the animal body using the insecticide, repellents and other chemical agents.

1.27. The Department informed the Committee that after October 2022, the number of affected animals decreased as bio-security measures like sanitation, movement control of animals, Vector Control and Vaccination of susceptible and eligible cattle population were implemented strictly by the States/UTs. However, the number of deaths shows increasing trends as the animals were under the incubation period and comorbidity, malnutrition (especially in stray animals), presence of blood parasites and presence of vector population in the area decreased the immunity of LSD affected animals resulting in deaths.

Disposal of Carcasses

1.28. As per the bio-security measures of the Guidelines for prevention of LSD, in case of mortality, carcass should be disposed of by deep burial method observing all hygienic measures. However, there have been various news reports about careless dumping of carcasses of animals dying due to infection from Lumpy Skin Virus.

1.29. When the Committee asked about the reasons for careless dumping of carcasses of infected animals and actions being taken by the Department to correct such a situation, to ensure adherence to bio-security measures for disposing dead bodies of infected

animals and to prevent further spread of the Lumpy Skin Virus owing to such carelessness, the Department stated:-

'As gathered from the states, some cases of falling of carcasses were observed at initial stage of disease spread especially in the case of stray animals or the animals left by the owners. However, immediate proper actions were taken by the states as per the central guidelines. The guidelines and advisories circulated to the states include proper disposal of carcasses, disinfection and hygiene protocols. States were advised to undertake proper carcass disposal in consultation and cooperation with local municipal and panchayat bodies and other stake holders which include regular monitoring, disinfection of the area, liming etc. States were advised that the veterinary hospitals and dispensaries should have proper supply of disinfectants, awareness material, PPE kits and other related items at all times. The states were also advised to monitor the disposal sites and dead animals for proper and scientific disposals. Departmental deputed veterinarians and Indian Council of Agricultural Research scientists to the affected states for taking first hand stock of the outbreak of Lumpy Skin Disease (LSD) in coordination with State Animal Husbandry Department for investigations and suggestions in respect to control and containment of LSD in definite time line as per the guidelines. Department regularly conducted physical and virtual meetings with the states to sensitize the states and take the update of the situation. States are advised to establish the isolation centres for stray and other affected animals with proper bio-security measures and veterinary care. Disinfection and cleaning measures were circulated to the states to carry out the disinfection of premises and area with appropriate chemicals / disinfectants [Ether (20%), chloroform, formalin (1%), phenol (2% /15 minutes), sodium hypochlorite (2-3%), iodine compounds (1:33 dilution) and quaternary ammonium compounds (0.5%)].'

1.30. Responding to the constraints / difficulties faced by the Department in ensuring adherence to bio-security measures for disposing of carcasses of infected Cattle as per the Guideline for prevention of Lumpy Skin Disease, the Department stated:

'There are no as such constraints/difficulties faced by the department as all necessary guidelines/advisories were regularly circulated to the states and and proper sensitization of the states/UTS was done through meetings, control room, whatsapp group and physical visits of the central team. However, some incoordination between state Animal Husbandry department and local Municipal and Panchayat authorities were noticed. Further, local governance authorities were properly sensitized by visiting central teams and by the state AHDs for proper and scientific disposal of infected carcasses. Awareness programmes conducted by the state also highlighted the need of proper disposal of carcasses.'

Raising awareness for prevention and precautions against Lumpy Skin Disease

1.31. On this aspect the Department informed the Committee that raising mass awareness about the disease among people particularly animal owners has been one of the strategies to control and contain LSD and it has been incorporated in the Guidelines and Advisory issued to States/UTs.

1.32. The Committee asked to provide details of awareness drive undertaken by the Department for prevention and treatment of Lumpy Skin Disease in Cattle, the Department, in its reply, submitted as under:-

'The guidelines and SOPs for containment of the disease and isolation of infected animals, vaccination protocols and hygiene protocols including the treatment guidelines have been communicated to the States/UTs. Control Room at the centre was set up which coordinated efforts of the States in controlling LSD including the awareness to the state authorities. Department is collecting figures from affected States daily with updates. Whatsapp group also created to make the state authorities aware of various development in disease control programmes and to address the queries. Central teams were also deputed for investigation and monitoring. Advisories were also issued to unaffected States for appropriate awareness and preparedness. Funds have also been provided to the States for awareness programme as per their demand. Department advised the states to create awareness to animal owners and other stake holders to identify the suspected animals at an early stage by observing initial signs like off feed, dullness, fever and inform to local veterinarian for immediate isolation and treatment of suspected animal and to control the infection at early stage before disease become severe. Department advised the states for formation of RRTs and trainers for immediate response and awareness and to explore the possibility to involve local animal owners, panchayat members, Pradhans, NGOs, local youth in awareness programmes. Department also circulating the awareness through social media posts and through the 24x7 control room established in the department and at the level of the states. As a initiative for awareness, states/UTs were advised to constitute a District level monitoring and co-ordination committee headed by District Collector along with District officials and representatives of Dairy Unions for effective control and containment of Lumpy Skin Disease in the District. States/UTs are requested to conduct village wise household survey for the disease. State periodically conducted TV talks, Radio Talks, Press Conference, Press release, Field visits, Rallies, School Students rallies, Pamphlets, leaflets. Ethno-veterinary formulations are also accessible on NDDB website (www.nddb.coop). On the e-GOPALA app, also LSD treatment using ethno-veterinary medicine is also available.'

1.33. About utilization of the Mobile Veterinary Units (MVUs) for disbursing necessary information regarding awareness, prevention and treatment, the Department stated that it was also advised the States/UTs to use the MVUs in disease control programme for Lumpy Skin Disease for awareness, sampling, treatment, vaccination.

1.34. On being asked about the approach of the Department towards dispelling the myths related to consumption of dairy and meat in the minds of consumers during the ongoing spread of the Lumpy Skin Disease in Cattle, the Department stated:

'Department issued the advisories to the states/UTs which include advisory that milk collection centers should educate the farmers at the time of milk collection and ensure healthy milk collection without mixing of the milk of infected animals. The consumption and transport of raw milk of infected animal should be discouraged is also the part of advisory. The advisory also include that milk from affected animals may be used after boiling. Department also circulated the awareness through social media posts, virtual meetings with the states, through central team visits and through the 24x7 control room established in the department and at the level of the states. The indicative treatment and management guidelines also indicate the judicious use of antibiotics and also to follow the withdrawal periods wherever antibiotics are used for treatment purpose. Funds have also been provided to the States as per their demand for awareness programmes.'

Ethno-Veterinary Medicine and Treatment

1.35. During Briefing Meeting, on the Subject held on 20.12.2022, the Hon'ble Members of the Committee stated that various traditional/Ethno-veterinary Methods of treatment were quite effective in treating LSD infected Cattle.

1.36. When the Committee asked to provide details of the steps being taken by the Department to popularize the traditional method / Ethno-veterinary method of treatment for infected Cattle, the Department stated:

'Department formulated the indicative management and treatment guidelines for the symptomatic treatment of cattle affected by Lumpy Skin disease which include Ethnoveterinary formulations. The formulation includes oral and external application preparations including maggots management. The details are as under:

Oral preparation (for one dose): Betel leaves-10 nos. + Black pepper-10 gm + Salt-10 gm. Blend this to form a paste and mix with jaggery. Dose: Day 1- One dose

every three hours. Day 2 and onwards for 2 weeks- Three doses daily

Oral preparation (for two doses): Garlic-2 pearls + Corlander-10 gm + Cumin-10 gm + Dry cinnamon leaves-10 gm + -10 nos. + Black pepper-10 gm + Betel leaves-5 nos + Shallots-2 bulbs + Turmeric- 10gm + chirata leaf powder- 30 gm + Sweet basil 1 + Neem leaves - 1 handful + Aegle marmalos 1 handful + Jaggery-100 gm. Blend this to form a paste and mix with jaggery. Dose: Day 1- One dose every three hours. Day 2 and onwards till recovery- Two doses daily

External application (if there are wound): Acalypha indica leaves-1 handful + Garlic-2 pearls + Neem leaves-1handful + Coconut or Sesame oil-500 ml + Turmeric powder- 20 gm + Mehndi leaves- 1 handful + Tulsi leaves- 1 handful. Blend all ingredients and mix with 500 ml coconut or sesame oil and boil and bring to cool. Application: clean the wound and apply directly

For Maggots: Apply Anona leaf paste or camphorated coconut oil for the first day only if maggots are present.

Ethnoveterinary formulations are also accessible on NDDDB website (www.nddb.coop). On the e-GOPALA app, also LSD treatment using ethno-veterinary medicine is also available.'

1.37. On being asked as to whether any study / assessment about effectiveness of traditional / Ethno-veterinary method of treatment in treating LSD in Cattle has been undertaken, the Department stated:

'Lumpy Skin Disease is the viral disease with self-limiting nature and the affected animals normally recovered within 2-3 weeks and the treatments are only symptomatic. While no permanent and 100% effective cure for LSD is known till date, vaccination is an effective option for prevention of LSD. Accordingly, vaccination with the available domestically manufactured Goat Pox vaccine is continuing. The use of preparations only supports the affected animals in recovery with no surety of recovery and therefore no sure treatment guidelines can be recommended. Therefore, no such study/assessment about effectiveness of traditional/Ethno-veterinary method of treatment in treating LSD in Cattle is necessary from Department side. Preventive vaccination and bio-security measures are the only measures to safeguard the animals from Lumpy Skin Disease. However, a MOU has been signed between DAHD and Ministry of AYUSH, on 7th April, 2021 to introduce the concept of Ayurveda and its allied disciplines into veterinary science with the objective of to develop a regulatory mechanism for the use of Ayurveda in the veterinary sector for the benefit of animal health.'

1.38. On being asked to provide State and UT-wise details of the percentage of recovery rate and mortality rate in infected Cattle treated with Ethno-veterinary Medicine and those treated with modern Veterinary drugs, the Department stated:

'... no such study of the percentage of recovery rate and mortality rate in infected Cattle treated with Ethno-veterinary Medicine and those treated with modern Veterinary drugs is necessary and conducted from Department side. The use of Ethno-veterinary Medicine and modern Veterinary drugs only supports the affected animals in recovery with no surety of recovery and therefore no effective treatment guidelines are recommended. Preventive vaccination and bio-security measures are the only measures to safeguard the animals from Lumpy Skin Disease.'

Availability of Funds

1.39. As regard the provision of Funds to the States, the Department submitted that the Funds had been provided to affected States for undertaking trainings, awareness campaigns and vaccination under Assistance to States for Control of Animal Disease (ASCAD) as per the demand. States are also advised the possibility to utilize the emergency funds of the state/district for control operations. Financial assistance provided to the States / UT for procurement of vaccines and accessories for control of LSD under Assistance to States for Control of Animal Diseases (ASCAD) during Financial Year 2022-23. Department also communicated the animal certification and identification guidelines under items and norms in regard to eligibility for compensation on animal mortality to MHA in respect to assistance to states through SDRF and NDRF.

1.40. During the Briefing Meeting, the representative of the Department informed the Committee that, in 10 States in the country, vaccination of Cattle using Goat Pox vaccine has reached 100% and that the funding for this is met by a centrally sponsored Scheme component called ASCAD (Assistance to States for Control of Animal Diseases).

1.41. On being asked by the Committee to provide the funding pattern, total amount of fund allocated and the amount spent so far under the ASCAD component for vaccination against Lumpy Skin Disease in the country, the Department stated that:

'The component ASCAD is focused towards assistance to States/UTs for vaccination against economically important diseases of animals duly prioritized by

the States as per the disease(s) prevalent and losses to farmers. Funding Pattern: ASCAD is having a Central-State fund sharing pattern of 60-40/90-10 for NER & Himalayan States/ 100%. The states/UTs are utilizing the fund and provide the utilization of fund as per the procedure of central schemes. The Details of Fund provided/approved state wise for LSD control programme is as under:

(Rs. in Lakh)

S. No.	State	Funds released / permission accorded to States/UTs for procurement of vaccine doses and vaccination cost
1	Uttar Pradesh	792.00
2	Maharashtra	619.00
3	J&K	1607.00
4	Uttarakhand	80.33
5	Punjab	1478.00
6	Rajasthan	312.00
7	Gujarat	2.25
8	Chhattisgarh	93.70
9	West Bengal	478.8
10	Tripura	13.83
11	Madhya Pradesh	67.20
12	Haryana	272.48
13	Karnataka	385.11
14	Bihar	685.97
15	Andhra Pradesh	153.90
16	Mizoram	0.47
17	Sikkim	6.9
18	Himachal Pradesh	47.25
19	Puducherry	4.01
20	Assam	47.25
21	Odisha	249.56
22	Goa	2.19
	Total	7399.20

1.42. When the Committee asked whether the Department and / or States also drew funds from the sources other than that allocated to the Department at the time of Budget, the Department stated:-

'Department provides financial support to the States/UTs under the component ASCAD for vaccination against economically important diseases of animals duly prioritized by the States as per the disease(s) prevalent and losses to farmers

including Lumpy Skin Disease with Central-State fund sharing pattern of 60-40/90-10 for NER & Himalayan States/ 100% for UTs. However, as Animal Husbandry is the state subject, states are also utilizing their funds including emergency funds for various disease control and containment programmes including Lumpy Skin Disease.'

1.43. On being queried whether the Department faced any shortage of funds to properly deal with the spread of Lumpy Skin Disease and other related issues, the Department stated:-

'No shortage of fund has been noticed by the Department in respect of dealing with Lumpy Skin Disease'.

Veterinary Infrastructure and Veterinary Manpower

1.44. During Briefing meeting on the Subject held on 20.12.2022, the Members of the Committee pointed out about unavailability or absence of Veterinary/Para-Veterinary staff in various affected regions of the Country. Members stated:

'... You have made arrangements for vaccination, but due to the lack of veterinary doctors in many villages, it is difficult to vaccinate or give medicines to animals affected by lumpy skin disease in every village or in every house. Due to lack of treatment of animals at the right time, such a large number of animals are dying. The areas where the animals have been treated properly and promptly, their condition has improved. '

1.45. When the Committee asked about the measures being adopted by the Department to ensure availability of Veterinary / Para-Veterinary / trained staff in affected regions, particularly in remote and inaccessible areas of the country, the Department stated:

'Animal Husbandry is the State Subject. However, Department through the advisories circulated to the states from time to time and during the meeting and through visits of Central teams regularly advised the states/UTs to ensure round the clock availability of Veterinary/Pra-veterinary trained staff in the affected area. States were advised to deploy Rapid Action Teams in the affected areas including formation of District level Committee under the Chairmanship of District Collector for better monitoring and implementation of control measures effectively at local level. States were advised that Veterinarians and Para-Veterinarians working in the infected zone should not be deputed for other works so that their services are available round the clock and they can contribute effectively in disease control programme. States were also advised to establish Control room and activate 24x7

toll free number to address the issues of farmers immediately and also to undertake door to door awareness and vaccination drive with the help of NGOs, village leaders, youths, cooperatives, school teachers and other stakeholders. States/UTs were also advised to increase the role of MVUs in awareness, treatment and vaccination drive in far-flung areas.'

1.46. On being asked about the measures being adopted by the Department to ensure that Veterinary and Para-veterinary Staff working round the clock in infected zones are suitably incentivized for their services at such times, the Department stated:-

'Animal Husbandry is the State subject and states/UTs deputed regular staff for LSD control programmes. However, department in the advisories advised the States/UTs that the Veterinarians and Para-Veterinarians working in the infected zone should not be deputed for other works so that their services are available round the clock and they can contribute effectively in disease control programme. Also, Proper TA/DA and incentives should be given and announced for veterinarians, para-veterinarians and other staff to motivate them in disease control operations. As per the guidelines under ASCAD state may also demand for the remunerations for the vaccinators involved in the vaccination programmes.'

1.47. On being inquired by the Committee, whether the country has sufficient number of Veterinary / Para- Veterinary / other trained staff to deal with the spread of disease like Lumpy Skin Disease in the country, the Department stated:

'There are no reports from States/UTs regarding the shortage of trained staff to deal with the spread of diseases like Lumpy Skin Disease. Animal Husbandry, including Veterinary Science as well as veterinary practice, is a State subject. Hence, public employment of Veterinarians, as per their requirement, is the responsibility of the State Government.'

1.48. The Committee have been apprised about decentralization of existing Diagnostic Facilities for rapid diagnosis and control. 33 laboratories with required bio-safety level have been allowed for screening the disease by PCR. States are allotted to a specific laboratory to avoid overcrowding. When the Committee asked whether 33 laboratories are sufficient to cater to the diagnostic needs of the entire country for screening and treating Lumpy Skin Disease, the Department stated:-

'The laboratories are presently sufficient to cater to the diagnostic needs of the country as the laboratories are authorized based on their abilities and location and

accordingly the states/UTs are allotted for fast and proper diagnosis of the disease.'

1.49. On being asked whether Mobile Veterinary Units (MVUs) are capable of providing diagnostic facilities for detection of Lumpy Skin Virus in animals, the Department stated:-

'Laboratory diagnosis of the viral disease is the highly specialized subject requiring laboratories of Bio-security Level 3 and Bio-security Level 2 for virus isolation and PCR testing respectively including the trained staff in this area. Such facilities are not advisable in MVUs keeping in view the bio-safety and bio-security concerns. However, the states are advised to utilize the MVUs for sample collection and transportation of samples.'

Accuracy of data and methodology therein

1.50. During Briefing Meeting, Members of the Committee expressed doubt on the data relating to death of the Cattle in the country due to Lumpy Skin Disease, provided by the Department. They stated:

'... I am not aware about area where the first case of lumpy skin disease was reported in Rajasthan. There is the highest number of cow shelters there. The maximum number of cows have died in my constituency. I'm sorry, but your figures are 100% wrong. I didn't speak like this till now, but this issue is related to cows, so with great sorrow I had to speak.'

1.51. The Representative of the Department during the said Meeting submitted:

'An Honourable MP has raised the question that our data is not correct. Since we are 100 per cent dependent on the state governments, we collect data from them and compile it. If there is some omission or under-counting, we can ask them to verify it again.'

1.52. When the Committee asked about the methods employed by the Department to ascertain ground realities of the spread of Lumpy Skin Disease and to collect data from the smallest of villages regarding infected, vaccinated, treated and dead Cattle in the country, the Department stated:-

'Based on the central guidelines/advisories and as gathered from the states, LSD Nodal Officers are nominated at each district level that are responsible for collecting the data from their respective districts through Veterinarians and Para-

Veterinarians at the grass root level on a daily basis. The state officers are also making surprise checks in the field in areas reporting unexpected low or high number of cases and deaths to verify the same. The State Nodal Officer/s also make field visit to various districts to verify and authenticate the data by the checking daily case reports entered in their registers/proformas. State officials correlated their cumulative data with field visits and meetings arranged in the affected districts, ensuring that there are no gaps in data being received. A State Level Control Room were also established in the State with toll free number to assist in data generation on daily basis. Adequate checks and balances are in place and the data is also analyzed at the State Directorate level for data accuracy before reporting. The states also constituted a district committee under the chairmanship of the district magistrate and Collector of the respective district. The same committee is monitoring and reviewing the epidemic and its queries and carrying out meetings. Control Room at the centre was set up, which coordinates efforts of the States in controlling LSD. Central teams have been deputed for investigation and monitoring in high risk areas of the states.'

1.53. On being asked how the Department ascertains the accuracy of the data collected from the field and whether reports showing mismatch between the cumulative data for spread of LSD infection, mortality and recovery rate in State and UTs and that of the actual situation on the ground are correct, the Department stated:-

'Department regularly conducted physical and virtual meetings with the states to sensitize the states and take the update of the situation. The Department is collecting figures from affected States daily with updates and accordingly verify the data wherever there is any doubt. Department is also taking follow-up through whatsapp group and 24x7 control room. Department deputed Central teams comprising departmental veterinarians and ICAR-NISHAD scientists to the affected states for taking first hand stock of the outbreak of Lumpy Skin Disease (LSD) in coordination with State Animal Husbandry Department for investigations and suggestions where the actual field conditions were examined and correlated with the reports. During the visits, no as such mismatch between the cumulative data for spread of LSD infection, mortality and recovery rate in State and UTs and that of the actual situation on the ground are noticed.'

1.54. When the Committee asked about the steps being taken by the Department to ensure that the information provided about infection, death rate, recovery rate etc. of Cattle due to LSD infection are correct, the Department stated:-

'Department regularly conducted physical and virtual meetings with the states to sensitize the states and take the update of the situation. The Department is

collecting figures from affected States daily with updates and accordingly verify the data wherever there is any doubt. Department is also taking follow-up through whatsapp group and 24x7 control room. Department deputed Central teams comprising departmental veterinarians and ICAR-NISHAD scientists to the affected states for taking first hand stock of the outbreak of Lumpy Skin Disease (LSD) in coordination with State Animal Husbandry Department for investigations and suggestions where the actual field conditions were examined and correlated with the reports.'

Compensation to Livestock Owners

1.55. During Briefing Meeting, Members stated:

'As compensation was given by the Government to the families of people who died due to corona, similarly those who lost their livestock due to lumpy skin disease should also be given compensation. It is like a natural disaster for the farmers or the cattle owners. It is the duty of the government to give some compensation to the farmers and owners of the animals that die due to lumpy skin disease, so that the farmer could bear this loss.'

1.56. When the Committee asked about the details of the provisions of the Department regarding compensation / insurance facilities to Livestock owners losing Cattle to unforeseen situations such as spread of Cattle diseases, faulty vaccination etc, the Department stated:-

'There are no reports of livestock owners losing cattle due to faulty vaccination. Department do not have any scheme to compensate cattle losses due to spread of disease. Further, as gathered from Ministry of Home Affairs, the primary responsibility for disaster management rests with the State Governments concerned. The concerned State Government undertakes relief measures in the wake of natural disasters from the State Disaster Response Fund (SDRF) already placed at their disposal in accordance with Government of India's approved items and norms. Additional financial assistance in the form of relief and not compensation is provided from the National Disaster Response Fund (NDRF) as per the established procedure. Further, as communicated by MHA, assistance for the loss of milch animals, draught animals or animals used for haulage is provided from NDRF as one of the component of entire scheme. Department has communicated MHA the eligibility criteria for compensation on animal mortality.'

1.57. On being asked whether the Department has any information related to compensation / aid provided by any of the State Governments to Livestock owners who lost their livestock to the Lumpy Skin Disease, the Department stated:-

'As gathered from the states, state of Maharashtra and Karnataka are providing compensation to livestock owners who lost their cattle to Lumpy Skin disease. Maharashtra government decided to provide death compensation from state plan scheme with retrospective effect as per the NDRF cost norms for animals deaths due to LSD *i.e.* Milch animals @ Rs.30,000/- , Draught animals @ Rs. 25,000/- and Calves @ Rs. 16,000. Further, Karnataka government also announced compensation towards death of cattle due to LSD @ Rs. 5000/- per calf, Rs. 20000/ per cow and Rs. 30000/ per bullock.'

Standard Operating Procedures (SOPs)/Protocol for Lumpy Skin Disease and similar other Outbreaks

1.58. About the preparedness of the Department regarding tackling such unforeseen animal pandemic situations also being detected in other parts of world like Camel Flu, especially the ones with a potential threat of Zoonotic spread, the Department stated:-

'DAHD has constituted an 'Empowered Committee for Animal Health (ECAH)' for policy input into key aspects related to the animal husbandry sector in the country under the guidance of Principal Scientific Adviser to Govt. of India and Secretary (AHD). The Committee act as a 'think tank' for the Department to assess all evidences and data and provide analytics-based recommendations. This Committee brings together various animal health experts to collaborate on achieving the completion of its goals. The members represented on the committee include experts from Central Drugs Standard Control Organisation (CDSCO), Department of Biotechnology (DBT), Indian Council of Agricultural Research (ICAR), Indian Council of Medical Research (ICMR), Indian Veterinary Research Institute (IVRI), Veterinary Council of India (VCI), and prominent academics and researchers from notable veterinary institutes and industry. There are also subcommittees aiding ECAH in formulating guidelines and policies on clinical trials/field trials of animal pharmaceuticals and biologicals. Further, One Health Support Unit (OHSU) at the Department of Animal Husbandry and Dairying (DAHD) is established for disease prevention, surveillance and response. One Health Support Unit (OHSU) was established by the department. With a vision of developing a "National One Health Platform", the pilot was launched in Uttarakhand and Karnataka on 6th April, 2022 and 28th June, 2022 respectively. Monitoring, coordinating and implementing bodies for One Health pilot like High Level One Health Steering Committee (HLOHSC), State Level One Health Committee (SLOHC), and One Health Coordination Team (OHCT) in Uttarakhand and HLOHSC & OHCT in Karnataka have been formed for smooth implementation of the project.'

PART II

OBSERVATIONS/RECOMMENDATIONS OF THE COMMITTEE

Control and containment of Lumpy Skin Disease in the country

1. The Committee noted that the country battled the devastating Lumpy Skin Disease (LSD) outbreak among cattle in 2021-22, which killed and emaciated large number of cattle, hurting milk production and farm income. The Committee also noted that the first outbreak of LSD was reported in Odisha in September, 2019 which in subsequent years acquired Pandemic Scale. The Committee were assured that presently the disease is showing less infection and death in affected States indicating the decrease in severity of infection. The Committee were informed that the Government through vaccination, awareness creation, isolation and treatment of infected animals and following the other measures are able to control and contain the spread of the disease to a large extent which is quite appreciable. However, the Committee feel that the disease should have been prevented and contained at initial stage of its first reporting in September, 2019 itself by taking prompt and effective measures as this would have avoided it taking pandemic form and would have saved large number of cattle from death and emaciation. The Committee, having taken note of all steps taken by the Government, recommend the Department to develop a mechanism and Standard Operating Procedure (SOP) so that immediate and effective action is taken if spread of such disease is reported instead of waiting for a longer period. The Committee also recommend the Department to make comprehensive efforts to ramp up disease surveillance, treatment and diagnostic infrastructure, improve veterinary services, build capacity of animal health professionals, etc to address animal pandemic in a holistic manner in future.

Vaccination

2. The Committee noted that vaccination of cattle is an important part of the strategy of the Government to tackle the spread of Lumpy Skin Disease among cattle in the country. The Department had issued the vaccination guidelines and advisories for carpet/preventive vaccination, controlled vaccination along with

protocols related to animal eligibility, dose and route of vaccine and measures for safe and effective vaccination. The Vaccination of eligible and healthy susceptible cattle is underway by available Goat Pox vaccine (Uttarakashi strain) with no adverse effect on animal as stated by the Department. The Committee also note that three manufacturers viz. Biovet Pvt. Ltd, Malur, Bengaluru; Indian Immunological, Hyderabad and Institute of Veterinary Biological Products, Pune have got the vaccine technology from ICAR - National Research Centre on Equines (NRCE), Hisar to manufacture the indigenous homologous live attenuated LSD vaccine (Lumpi-ProVac^{Ind}). The Commercial Product had been tested by the Competent Authorities (as per DCGI guidelines) and the final regulatory approvals are awaited. Indian Council of Agricultural Research, Department of Animal Husbandry and Dairying and Central Drugs Control Standard Organization are taking up for early approval and production of the indigenous vaccine 'Lumpi-ProVac^{Ind}' against Lumpy Skin Virus. The Committee, therefore, desire that the Department should take proactive steps for getting all regulatory approvals for commercial production/ manufacturing of 'Lumpi-ProVac^{Ind}' Vaccine, that has been developed specially for controlling and containing the spread of Lumpy Skin Disease among cattle. The Committee also desire that all eligible cattle be vaccinated as per the Vaccination Protocols on priority basis in order to contain Lumpy Skin Disease among the cattle.

Veterinary Infrastructure and Veterinary Manpower

3. The Committee had been apprised about decentralization of existing Diagnostic facilities for rapid diagnosis and control of Lumpy Skin Disease. Thirty three laboratories with required bio-safety level had been allowed for screening the disease by PCR and States were allotted to a specific laboratory to avoid overcrowding. According to the Department, these laboratories are presently sufficient to cater to the diagnostic needs of the country. The Committee had also been apprised by the Department that the States/UTs had been advised to ensure round the clock availability of Veterinary and Para-Veterinary trained Staff in the affected areas so that they can contribute effectively in disease control programme. Further as per 'Guidelines for Prevention of Lumpy Skin Disease'

circulated to the States/UTs, farms with affected animals should be visited regularly by the field Veterinarians until all cases are recovered. The Veterinary Staff should take all precautionary hygiene measures to avoid further spread of the disease to other Farms/Households. However, the Committee observed that Veterinary/Para-Veterinary Staff were either unavailable or absent in various affected regions/areas of the country leading to large scale death of infected cattle - in absence of proper treatment at right time. The Committee, therefore, recommend the Department to ensure availability and presence of Veterinary/Para-Veterinary and other trained Staff in the regions affected by the disease, particularly in remote and inaccessible areas of the country so that timely treatment to infected cattle and vaccination can be provided and losses can be minimized. The Committee further recommend the Department to take steps for strengthening and upgrading of Veterinary Infrastructure such as Veterinary Hospitals, Laboratories, etc so that country can effectively contain diseases like Lumpy Skin Disease and minimise the economic loss to the country.

(Recommendation No. 3)

Adherence to Bio-Security Measure for Disposal of Carcasses and Infected Material

4. The Committee observed that as per the bio-security measures of the 'Guidelines for Prevention of Lumpy Skin Disease', carcass should be disposed of by deep burial method observing all hygienic measures. The Guidelines and Advisories circulated to the States/UTs include proper disposal of carcasses, disinfection and hygiene protocol. States/UTs have been advised to undertake proper carcass disposal in consultation and cooperation with municipal and panchayat bodies and other stakeholders which include regular monitoring, disinfection of the area, liming etc. The Committee, however, observed that there were large number of instances of careless dumping of carcasses of animals dying due to infection from Lumpy Skin Disease which poses serious health threats not only to other healthy animals but also to human beings. The Committee, therefore, recommend the Department to make sure in future

complete adherence to bio-security measures for disposing of carcasses of infected cattle and infected material as per the Guidelines for prevention of Lumpy Skin Disease. The Committee further recommend the Department to formulate a policy at National /Central Level for 'recovery and carriage process' for the disposal of dead animals (Carcasses) and an 'App' or Helpline so that the 'recovery and carriage' can be ensured without any hiccups of jurisdiction and responsibility.

Awareness Programme

5. The Committee noted that raising mass awareness about the disease among people particularly Animal Owners and other Stakeholders had been one of the strategies to control and contain Lumpy Skin Disease and it has been incorporated in the Guidelines and Advisory issued to States/UTs. The Committee had been apprised by the Department that it raised awareness through social media posts, virtual meetings with the States, through Central team visits and through the 24X7 Control Room, established in the Department and at the level of the States. Further, States periodically conducted TV talks, Radio Talks, Press Conference, Press Release, Field Visits, Rallies, School Student Rallies, distribution of Pamphlets and Leaflets for awareness creation. However, the Committee feel that awareness among Animal Owners and other Stakeholders regarding treatment and management of infected animals and effective control and containment of Lumpy Skin Disease was lacking resulting in the wide spread of the disease and death of large number of infected cattle. The Committee, therefore, desire that awareness drive regarding treatment, control, containment and other related aspects of the disease should be undertaken on a large scale so that it reaches to every region and people of the country. Proper and wide spread awareness creation would not only help in controlling and containing the disease but would also help in dispelling the rumours/myths related to the disease and avoiding panic related therewith in the public. The Committee further desire that the Department may seriously consider to organize 'Workshops/Seminars' for the rural youth engaged in animal rearing profession so as to enlighten them with basic knowledge/First Aid about how to deal with such diseases at ground level.

Popularisation of traditional/ Ethno-Veterinary Medicine and Treatment

6. The Committee observed that various traditional/ Ethno-Veterinary methods of treatment were quite effective in treating LSD infected cattle. The Committee noted that as per 'Indicative Management and Treatment of Lumpy Skin Diseases (LSD) in Animals', formulated and issued by the Department, use of Herbal Solutions, Homeopathy Preparations, Ethno-Veterinary Formulations, etc also offered a supportive role in management of Lumpy Skin Disease and might have been used. However, the Committee had been apprised by the Department that the use of preparations only support the affected animals in recovery with no surety of recovery and therefore, no sure treatment Guidelines could be recommended. The Committee have also been apprised that a Memorandum of Understanding (MoU) has been signed between the Department of Animal Husbandry and Dairying (DAHD) and the Ministry of AYUSH, on 7th April, 2021 to introduce the concept of Ayurveda and its allied disciplines into Veterinary Science with the objective to develop regulatory mechanism for the use of Ayurveda in the Veterinary Sector for the benefit of animal health. Welcoming the signing of Memorandum of Understanding (MoU) between DAHD and the AYUSH, the Committee desire the Department to take steps to promote the use of traditional/Ethno-Veterinary medicine and treatment in controlling and containing the spread of diseases among animals.

Accuracy of Data

7. The Committee noted that the country faced devastating outbreak of Lumpy Skin Disease among cattle in 2021-22 resulting in large scale death and emaciation of cattle. The Committee, however, express doubt on the data relating to death of the cattle in the country as a result of the Lumpy Skin Disease and also noted with anguish that there was a gap/mismatch in data relating to number of cattle affected and died as furnished by the Department and the actual ground realities. The Department had apprised the Committee that it is totally dependent on State Governments/UTs for data regarding infected, vaccinated, treated and dead cattle in country and they (States/UTs) are following proper mechanism/system for ensuring compilation of accurate data. Further, during the

visits of Central teams comprising Departmental Veterinarians and ICAR-NISHAD Scientists to the affected States, no such mismatch between the cumulative data for spread of LSD infection, mortality and recovery rate in State and UTs and that of the actual situation of the ground are noticed. The Committee are of considered view that the data regarding infection, mortality, recovery of cattle from LSD should have been accurate as it would not have only helped in understanding the gravity of the situation but would also have helped in controlling and containing the disease and its further spread. The Committee, therefore, recommend the Department to ensure proper compilation of data relating to spread of infection and mortality of cattle from LSD so that cases of infection and mortality do no remain unreported and underreported.

Compensation to Livestock Owners

8. The Committee noted that large number of Livestock/Cattle owners lost their cattle due to spread of Lumpy Skin Disease resulting in severe economic hardship to them. The Committee also noted that the Department did not have any Scheme to compensate for Cattle losses due to spread of disease. The Committee had been apprised that the State Government of Maharashtra and Karnataka had provided/are providing compensation/financial help to Livestock Owners, who lost their cattle due to Lumpy Skin Disease. The Committee are of the view that providing compensation/financial help to Livestock Owners, who lost their cattle to Lumpy Skin Disease would reduce their economic hardship to some extent. The Committee, therefore, desire that the Department in coordination with State Government should make the necessary provisions for compensating Livestock owners who loses their cattle to Lumpy Skin Disease or any such outbreak of other animal diseases.

NEW DELHI
13 December, 2023
22 Agrahayana, 1945 (Saka)

P.C. GADDIGOUDAR
Chairperson
Standing Committee on Agriculture,
Animal Husbandry and Food Processing

GUIDELINES FOR PREVENTION OF LSD (LUMPY SKIN DISEASE)

(Version 3.0, Date: 26/09/2022)

- 1. Movement control of animals:** In order to minimize the economic impact of the outbreaks and to control LSD, the movement of animals to and from the infected area should be completely banned. This will check the transmission/spread of LSD. Affected states shall communicate with neighboring non-affected states and share control and risk strategies to ensure that infection do not enter the non-affected states
- 2. Restriction to be enforced with affected animals and the persons dealing with infected animals:** Movement of people to and from the affected area should be restricted. The animal handlers and those attending to the affected animals should be advised to keep away from healthy animals. It is therefore, of utmost importance to ensure these safety measures

3. Vaccination

The vaccination strategy for carpet/preventive vaccination and controlled epicentre vaccination is as under:

A. CARPET VACCINATION/PREVENTIVE VACCINATION IN NON-AFFECTED AREA

1. Priority should be given to high risk areas like border area of affected district and states
2. Priority to cattle as presently most affected.
3. Buffaloes need not to be vaccinated at this stage. Buffaloes shall be protected by adopting strict biosecurity measures like isolation from affected cattle, regular disinfection and vector control in the area, provision of nutritional feed and fodder, regular veterinary supervision and care.
4. Eligible and healthy susceptible cattle at the age of 4 months and above should be vaccinated through S/C route with available Goat pox vaccine- Uttarkashi Strain. The dose of $10^{3.0}$ TCID₅₀ (same dose of vaccine for goat against goat pox) can be used for carpet /preventive vaccination in cattle.
5. Affected animals should not be vaccinated and (if found during vaccination) shall be isolated immediately with further laboratory confirmation and epicentre vaccination strategy shall be followed as per **para B** below.

6. All eligible non-affected apparently healthy animals shall be vaccinated after proper clinical examination. May also be covered under annual re-vaccination if remain healthy.
7. Calves from vaccinated animals or naturally infected mothers should be vaccinated at the age of 4 to 6 months. Calves from unvaccinated mothers can be vaccinated at any age.
8. Newly purchased animals should be vaccinated 28 days before the introduction to the herd.
9. Animals should be vaccinated 28 days before the transport or movement to another place (wherever permitted).
10. Same dosage and protocol should be applied to domestic buffaloes as for cattle (whenever permitted).
11. Pregnant, healthy cows / heifer can be safely vaccinated.

B. CONTROL VACCINATION IN AFFECTED AREA/EPICENTER

1. The infected village/area/premises/farm/house shall be identified with animal population profile and assessment of other requirement for control and containment of the disease
2. Affected animals shall be identified and isolated immediately away from healthy/non-affected animals.
3. Affected animals shall not be vaccinated.
4. Priority to cattle as presently most affected.
5. Buffaloes need not to be vaccinated at this stage. Buffaloes shall be protected by adopting strict biosecurity measures like isolation from affected cattle, regular disinfection and vector control in the area, movement control from the infected area and providing nutritional feed and fodder and regular veterinary care.
6. **Vaccination Planning:**
 - a) Control vaccination shall start first from the border of the epicentre (outside to inside strategy)
 - b) The affected premises/animal farm/house shall be strictly monitored with implementation of strict biosecurity measures as per the control guidelines.
 - c) The affected animal/s shall be isolated (quarantined) under veterinary care and supervision till recovered.
 - d) Affected animals shall not be vaccinated.
 - e) Eligible susceptible healthy cattle at the age of 4 months and above should be vaccinated through S/C route with available Goatpox vaccine- Uttarkashi Strain. The dose of $10^{3.0}$ TCID₅₀ (same dose of vaccine for goat against goat pox) can be used.

- f) Animals already vaccinated shall not be re-vaccinated. However, annual vaccination (after 1 year) may be given
- g) Animals recovered from LSD shall not be vaccinated. However, may be covered under annual vaccination if remain healthy.
- h) All eligible non-affected apparently healthy animals shall be vaccinated after proper clinical examination. May also be covered under annual re-vaccination if remain healthy.
- i) Calves from vaccinated animals or naturally infected mothers should be vaccinated at the age of 4 to 6 months. Calves from unvaccinated mothers can be vaccinated at any age.
- j) Newly purchased animals should be vaccinated 28 days before the introduction to the herd.
- k) Animals should be vaccinated 28 days before the transport or movement to another place (wherever permitted).
- l) Same dosage and protocol should be applied to domestic buffaloes as for cattle (whenever permitted).
- m) Pregnant, healthy cows / heifer can be safely vaccinated.

C. OTHER MEASURES FOR SAFE AND EFFECTIVE VACCINATION

1. Vaccinated animals shall be identified and monitored with tag numbers or without tag numbers with proper documentation
2. The staff and vaccinators should be trained for vaccination drive including storage and preparation of vaccine, dosing and injection and identification of animals
3. Use of fresh disposable needle and syringe every time for vaccination of new animal shall be ensured
4. Separate teams should undertake control vaccination in epicentre and the staff, vehicle, instrument etc. shall not be allowed to enter from affected area to clean/non-affected area.
5. At the same time, fogging and disinfection of vaccinated area shall be ensured and documented along with other bio-security measures as per the control guidelines.

4. Bio-security measures:

- Isolation of sick animal from the healthy animals
- Clinical surveillance against LSD in affected districts and around surrounding villages should be intensified

- The buffaloes should be kept separately till complete recovery of the affected animals, if reared together. Ensure proper bio-security measures for buffaloes to prevent any possible disease threat from affected cattle
 - Disinfection of premises at regular intervals
 - Ecto-parasiticide should also be applied to healthy animals on the infected and on surrounding farms
 - The persons dealing with the infected animal should wear gloves and face mask
 - Care should be taken to report any unusual sickness of other animals to nearest veterinary Hospital/Dispensary
 - Hygiene practices should be followed at the animal farm and by the people in area where animals are infected
 - Farms with affected animals should be visited regularly by the field veterinarians until all the cases are recovered. The veterinary staff should take all precautionary hygiene measures to avoid further spread of disease to other farms/households
 - In case of mortality, carcass should be disposed of by deep burial method observing all hygienic measures
 - Cattle markets located within 10 km radius of the epicentre of infection should be closed
 - Trade of live cattle, participation in fairs, shows should be banned immediately upon confirmation of the disease in the affected areas
5. **Vector control:** Control of vector population in the area, premises and the animal body should be carried out using the insecticide, repellents and other chemical agents.
6. **Disinfection and cleaning measures:** Affected Premises, vehicles plying through the affected animal holdings should be carried out with appropriate chemicals / disinfectants [Ether (20%), chloroform, formalin (1%), phenol (2% /15 minutes), sodium hypochlorite (2-3%), iodine compounds (1:33 dilution) and quaternary ammonium compounds (0.5%)].
7. **Guidelines for Sample Collection and Dispatch for Diagnosis and surveillance of Lumpy Skin Disease (LSD) for testing at ICAR-NIHSAD, Bhopal:** Format, guidelines including general and transport guidelines may be seen at ICAR-NIHSAD, Bhopal website http://www.nihsad.nic.in/pdf/LSD_%20REVISED%20Guidelines%20for%20Sample%20Collection%20and%20Dispatch%20for%20Diagnosis%20of%20Lumpy%20Skin%20Disease.pdf

- 8. Awareness programme:** Mass awareness campaign to be taken up to make the public aware of the disease and report to the veterinary authority immediately when suspected cases are detected. This will help in prevention and control of LSD. Awareness to animal owners and other stake holders to identify the suspected animals at an early stage by observing initial signs like off feed, dullness, fever and inform to local veterinarian for immediate isolation and treatment of suspected animals and to control the infection at early stage before disease become severe. Development of SOPs/DOs and DONTs and training material in local language as per guidelines for effective awareness to all stake holders and VOs and to conduct regular trainings. State may explore the possibility to involve local animal owners, panchayat members, Pradhans, NGOs, local youth in awareness programmes
9. Establishing proper and effective communication with local veterinary colleges for support in control and containment operations
10. Formation of RRTs and trainers for immediate response for control and containment and awareness.

11. Related suggestions:

- a) Strict implementation of advisories. Rapid Action Teams should be deployed in the affected areas.
- b) Strict implementation of bio-security measures including disinfection drives and carcass disposal in cooperation with local authorities including municipal authorities. The possibility of using state/district emergency funds may also be explored.
- c) Movement restriction and isolation of affected animals. Establishment of isolation centers with veterinary care for affected animals
- d) Movement control of vehicle, animals from affected area to free area.
- e) Disinfection measures to be followed strictly in liaison with Municipal bodies and administration including regular fogging and lime spray in the infected and surrounding area.
- f) Stray animals to be monitored regularly and the affected animals should be isolated under veterinary care with the help of municipal and administrative authorities.

- g) Waste disposal including feed, fodder and dead animal to be followed as per protocol and scientific method with marking and displayed safety guidelines.
- h) Animal movement from affected area to be monitored to prevent spread of the infection. Buffaloes may be transported from non-infected areas with routine health certificate, however, from the infected areas, the buffaloes should be inspected for clinical signs by a veterinarian (no animal with clinical sign should be allowed for movement, even if mild symptoms are noticed), accompanied with a recent health certificate and preferably be tested negative by PCR before transportation
- i) Animal trade and fare should not be allowed in the affected area.
- j) Vehicle passing through the infected area should be monitored and disinfected. Check post should be made active at border roads and bridges to control the entry of affected animals from affected states and districts.
- k) Insecticides spray and fogging to be undertaken in the animal sheds, common grazing area, veterinary hospital and dispensaries, animal gathering spots and animal movement tracks to control vectors like mosquito, flies, ticks, fleas etc.
- l) Surveillance of vector should also be undertaken by sending the samples to ICAR-NIHSAD to understand disease epidemiology and accordingly making control strategies.
- m) Monitoring of pastures, grazing area, water bodies, feed and fodder to prevent contamination by infected animal.
- n) Infected feed, fodder and bedding material should not be used and disposed scientifically.
- o) Infected animals should be kept separately in isolation with close monitoring till recovered and should not be kept in same animal shed. The milk of infected animals should not be used and mixed in the milk of healthy animals.
- p) Unnecessary post-mortem and sampling of infected animals should be avoided so that disease may not spread during such operations. The staff should wear all preventive gears during PM and sampling.
- q) The sampling should be done as per the prescribed SOP and protocol with due care at all times and proper and safe transport shall be ensured. Sampling should only be done by expert personnel by the veterinarian or under veterinary supervision.

- r) Except in unavoidable circumstances, the treatment of infected animal should be done through oral medication and topical application to avoid spreading of disease through treatment procedures and contamination of treatment accessories and personnel during treatment.
- s) The veterinary hospitals and dispensaries should have proper supply of medicines, supplements, disinfectants, treatment accessories, foggers, awareness material PPE kits and other related items at all times.
- t) Control room and 24x7 toll free number to be activated to address the issues of farmers immediately and also awareness.
- u) Role of MVUs should be increased in awareness, treatment and vaccination drive and the MVU operating in infected area should not enter the free area and if required proper disinfection protocol should be followed.
- v) Door to door awareness and vaccination drive should be undertaken with the help of NGOs, village leaders, youths, cooperatives, school teachers and other stakeholders.
- w) Milk collection centers should educate the farmers at the time of milk collection and ensure healthy milk collection without mixing of the milk of infected animals. The consumption and transport of raw milk of infected animal should be discouraged. The milk from affected animals may be used after boiling.
- x) Group grazing area and animal groups should be monitored and vaccinated and the infected animals should be immediately separated and kept under isolation under veterinary care. Special care should be taken to monitor the movement of animals from affected districts and states and round the clock check post with disinfection system should be activated and documented.
- y) Veterinarians and para-veterinarians working in the infected zone should not be deputed for other works so that their services are available round the clock and they can contribute effectively in disease control programme. Proper TA/DA and incentives should be given and announced for veterinarians, para-veterinarians and other staff to motivate them in disease control operations.
- z) Proper communication with media/social media for update on actual situation to avoid rumours and unnecessary panic in the public

INDICATIVE MANAGEMENT AND TREATMENT OF LUMPY SKIN DISEASES (LSD) IN ANIMALS

A. The treatment guidelines for Lumpy Skin Disease (LSD) are as under:

1. LSD affected animals should be separated from healthy animals and shall be kept in strict isolation and monitoring under veterinary supervision.
2. Symptomatic treatment including the treatment of secondary infection (if any) shall be carried out during isolation of animal.
3. Based on the symptoms and clinical signs following is recommended:
 - a. Use of anti-inflammatory drugs (preferably non-steroids) to treat the inflammatory condition
 - b. Use of anti-histamine preparations/drugs to treat allergic conditions
 - c. Use of Paracetamol in case high fever is observed
 - d. In case of secondary bacterial infections like respiratory infections, skin infections antibiotics may also be used judiciously. The dose and duration of the antibiotics should be strictly adhered including advice to the owner to follow the withdrawal period for milk
 - e. Parental/oral multivitamins may also be given
4. Treatment by methylene blue (MB)
 - Oral treatment with 0.1% Methylene Blue (MB) solution (1 gram of MB powder in 1 liter of water) may be considered by the Veterinarian.
 - Following dosage may be attempted:
 - Adult cows (of approximately 350 Kg body weight): 300 ml at 8 hourly interval (thrice in a day) for 4 days.
 - Calf: give approx. half dose
 - MB solution/preparations may also be used topically every (eg. by spray).
 - A milk withholding interval of 96 hours and a meat withdrawal interval of 14 days (if used in meat producing animals) is advised
5. Feeding of liquid feed/food, soft feed and fodder and succulent pasture is recommended

Advise: Except in unavoidable circumstances, the treatment of infected animal should be done through oral medication and topical application to avoid spreading of disease through treatment procedures and contamination of treatment accessories and personnel during treatment.

B. USE OF HERBAL SOLUTIONS

The under mentioned Herbal Animal Health Solutions also offers a supportive role in management of Lumpy Skin

1. Wound Healing and Fly Repellents

Available herbal spray, cream and gel promotes rapid wound repair in the skin nodules due to rapid collagenisation, have strong fly repellent action that prevent flies from sitting on the wounds and prevents maggot in wounds.

Preparations:

Like Topicure Advance Spray Natural Remedies Skin Healer and Fly Repellent, Scavon skin spray, charmil skin spray, Himax cream, Skin heal and Tee burb Indian Herbs Oral skin healer may be used.

2. Appetite and Digestive Tonics

Appetite stimulants restore the appetite, rumen functions and also prevent loss of body condition among animals

Preparations:

Like Himalayan Battista 100gm Indian Herbs, Appetonic 50gm HDC and Ruchamax 15gm/300g may be used

3. Immunomodulators and antioxidants

Improve immunity and potent and improve overall health.

Preparations:

Like Restobal 500ml/1Lit Ayurved Immunity enhancer and Geri forte 500ml/1Lit HDC may be used.

4. Instant Energy Booster

Sustain energy level and keeps animal active

Preparation:

Like Gluca-Boost Liquid Natural Remedies Energy Booster may be used

C. Homeopathy Preparations

The under mentioned Homeopathy preparations may also offers a supportive role in management of Lumpy Skin Disease and may be used:

Scruphularianodosa 30

Antim tart 30

Ars alb 30

CalendulaMT

D. Ethnoveterinary formulations (also refer www.nddb.coop)

The under mentioned formulations are also recommended:

1. **Oral preparation** (for one dose): Betel leaves-10 nos. + Black pepper-10 gm+Salt-10 gm
Blend this to form a paste and mix with jaggery
Dose: Day 1- One dose every three hours
Day 2 and onwards for 2 weeks- Three doses daily
2. **Oral preparation** (for two doses): Garlic-2 pearls + Corlander-10 gm + Cumin-10 gm + Dry cinnamon leaves-10 gm + -10 nos. + Black pepper-10 gm+ Betel leaves-5 nos + Shallots-2 bulbs + Turmeric- 10gm + chirata leaf powder- 30 gm + Sweet basil 1 + Neem leaves - 1 handful + Aegle marmalos 1 handful + Jaggery-100 gm
Blend this to form a paste and mix with jaggery
Dose: Day 1- One dose every three hours
Day 2 and onwards till recovery- Two doses daily
3. **Externalapplication** (if there are wound): Acalypha indica leaves-1 handful + Garlic-2 pearls + Neem leaves-1handful + Coconut or Sesame oil-500 ml + Turmeric powder- 20 gm + Mehndi leaves- 1 handful + Tulsi leaves- 1 handful

Blend all ingredients and mix with 500 ml coconut or sesame oil and boil and bring to cool

Application: clean the wound and apply directly

For Maggots: Apply Anona leaf paste or camphorated coconut oil for the first day only if maggots are present

**Standing Committee on Agriculture, Animal Husbandry and Food Processing
(2022-23)**

Minutes of the Third Sitting of the Committee

The Committee sat on Tuesday, the 20th December, 2022, from 1500 hrs. to 1610 hrs. in Committee Room No. 3, Block A, Extension to Parliament House Annexe, New Delhi.

PRESENT

Shri P.C. Gaddigoudar – *Chairperson*

Members
Lok Sabha

2. Shri Afzal Ansari
3. Shri Horen Sing Bey
4. Shri A Ganeshamurthi
5. Shri Kanakmal Katara
6. Shri Abu Taher Khan
7. Shri Mohan Mandavi
8. Shri Devji Mansingram Patel
9. Shri Sharda Anilkumar Patel
10. Shri Bheemrao Baswanthrao Patil
11. Shri Shrinivas Dadasaheb Patil
12. Shri Vinayak Bhaurao Raut
13. Shri Pocha Brahmananda Reddy
14. Shri Devendra Singh *alias* Bhole Singh
15. Shri Virendra Singh
16. Shri V.K. Sreekandan

Rajya Sabha

17. Dr. Anil Sukhdeorao Bonde
18. Shri S.Kalyansundaram
19. Shri Ram Nath Thakur
20. Shri Harnath Singh Yadav

Secretariat

1. Shri Shiv Kumar - Additional Secretary
2. Shri Naval K. Verma - Director

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|----|---------------------------|---|---------------------|
| 3. | Shri Uttam Chand Bhardwaj | - | Additional Director |
| 4. | Shri Prem Ranjan | - | Deputy Secretary |
| 5. | Shri N. Amarathiagan | - | Under Secretary |

Witnesses

**Ministry of Fisheries, Animal Husbandry and Dairying
[Department of Animal Husbandry and Dairying (DAHD)]**

Name	Designation
1. Shri Rakesh Kumar Singh	Secretary
2. Miss Varsha Joshi	Additional Secretary
3. Dr. Abhijit Mitra	Animal Husbandry Commissioner
4. Dr. O.P.Chaudhary	Joint Secretary
5. Dr. Sujit Nayak	Joint Commissioner

2. At the outset, the Chairperson welcomed the Members to the Sitting of the Standing Committee and informed them that, as directed by the Hon'ble Speaker, Computer (HW & SW) Management Branch (Software Unit) would make a Presentation before the Committee so as to apprise the Members of the Digital Sansad Mobile Application and Website and to seek their valuable suggestions and feedback for further improvements in the Software. Thereafter, Officers of Computer (HW & SW) Management Branch (Software Unit) made their Power Point Presentation in this regard.

3. Thereafter, the Representatives of the Ministry of Fisheries, Animal Husbandry and Dairying (Department of Animal Husbandry and Dairying) were called in for a Briefing on the Subject 'Spread of Lumpy Skin Disease in Cattle in the Country and issues related therewith'.

4. The Chairperson welcomed the Representatives of the Department to the Sitting of the Committee, apprised them about the Confidentiality of the Proceedings and asked them to be free and frank while expressing their views on the Subject.

5. After the introduction, the Chairperson initiated the discussion, which was followed by a Power-point Presentation by the Representatives of the Department. The discussion *inter alia* covered issues such as causes of spread of Lumpy Virus / Skin Disease (LSD), severity and recovery rate in Cattle in the country, status of vaccination, treatment and control guidelines as well as measures adopted for tackling its spread, etc. The Chairperson and Members of the Committee *inter alia* raised several important issues / points, as briefly mentioned below and sought clarifications / information :

- i. The causes of the rampant spread of the Lumpy Skin Disease in Cattle in Rajasthan and its subsequent spread in other States of the country;
- ii. Methods employed by the Department to ascertain ground realities of the spread of Lumpy Skin Disease and to collect data, from the smallest of villages, regarding infected, vaccinated, treated and dead Cattle;
- iii. The accuracy of the data collected and to correlate this data with that being presented by the Department before the Committee;
- iv. The need for a select team of Officials / experts from the Centre to visit the disease affected States to ascertain State-specific patterns of spread of Lumpy Skin Disease, higher death rate of Cattle and low recovery rate of Cattle from the Lumpy Virus infection;
- v. The reasons behind the low rate of recovery of Cattle infected with Lumpy Skin Disease in the State of Kerala;
- vi. Timely treatment of Cattle suffering from Lumpy Skin Disease and guidelines with respect to isolation facilities for infected cattle in States;
- vii. Steps taken for vector control so as to contain spread of the virus;

- viii. The causes behind the rate of infection as well as the death rate being extremely low in Stray Cattle as compared to that of Domestic Cattle and causes of higher infection in male Cattle compared to others;
- ix. The vaccination plan and schedule of Livestock in each of the States and Union Territories and the reasons behind negligible rate of vaccination of Cattle against Lumpy Skin Disease in the State of Bihar;
- x. The steps being taken by the Department to produce the indigenous / specific vaccine against Lumpy Skin Disease in the country;
- xi. Steps taken by the Department to successfully reduce severity of infection and avert deaths through timely administration of Goat Pox vaccine in Cattle and through treatment of infected cattle using Ethno-veterinary medicine;
- xii. To raise awareness among livestock owners regarding treatment of Lumpy Skin Disease with Ethno-veterinary medication with minimum side effects;
- xiii. Problems arising in vaccination drive and treatment of affected Cattle in rural and remote areas due to shortage of Veterinary and Para-veterinary Staff;
- xiv. Measures being adopted by the Department to increase human capital in the Veterinary Services, such as, temporary or contractual deployment of Veterinary and Para-veterinary Staff in geographically inaccessible terrains in order to ensure timely intervention in the event of spread of Lumpy Skin Disease and also incentivizing Veterinary undergraduate students to temporarily serve in remote and inaccessible areas with limited or insufficient Veterinary manpower;
- xv. Proper training of Para-veterinary Staff so as to enable efficient doorstep delivery of Veterinary services;

- xvi. The need to ensure insurance facilities / compensation for Cattle owners losing Livestock due to Lumpy Skin Disease; and
- xvii. Efforts being made or research being done in the direction of eradication of Lumpy Skin Disease; etc.

6. The Representatives of the Department tried to respond to some of the queries / points raised by the Members. The Chairperson directed them to send, in writing, the requisite information on points / items, which were not readily available with them, to the Committee Secretariat by 30th December, 2022 and thanked the witnesses for sharing valuable information with the Committee on the Subject.

The Committee then adjourned.

[A copy of the verbatim proceedings of the Sitting has been kept separately.]

**Standing Committee on Agriculture, Animal Husbandry and Food Processing
(2023-24)**

Minutes of the Third Sitting of the Committee

The Committee sat on Wednesday, the 13th December, 2023 from 1500 hrs. to 1530 hrs. in Office of Chairperson, Room No. 103, Block-B, Extension to Parliament House Annexe, New Delhi.

Present

Shri P. C. Gaddigoudar – Chairperson

***Members
Lok Sabha***

2. Shri A. Ganeshamurthi
3. Shri Kanakmal Katara
4. Shri Abu Taher Khan
5. Shri Devji Mansingram Patel
6. Smt. Sharda Anilkumar Patel
7. Shri Pocha Brahmananda Reddy
8. Shri Rajiv Pratap Rudy
9. Shri Virendra Singh
10. Shri Sushil Kumar Rinku

Rajya Sabha

11. Smt. Ramilaben Becharbhai Bara
12. Shri Masthan Rao Beeda
13. Dr. Anil Sukhdeorao Bonde
14. Shri Kailash Soni
15. Shri Ram Nath Thakur
16. Shri Vijay Pal Singh Tomar
17. Shri Vaiko
18. Shri Harnath Singh Yadav

Secretariat

- | | | | |
|----|----------------------------|---|----------------------|
| 1. | Shri Shiv Kumar Wadhawan | – | Additional Secretary |
| 2. | Shri Uttam Chand Bharadwaj | – | Director |
| 3. | Shri Prem Ranjan | – | Deputy Secretary |

2. At the outset, the Chairperson welcomed the Members to the Sitting of the Committee. Thereafter, the Committee took up for consideration and adoption of Draft Report on the Subject 'Spread of Lumpy Skin Disease in Cattle in the Country and issues related therewith' pertaining to the Ministry of Fisheries, Animal Husbandry and Dairying (Department of Animal Husbandry and Dairying).

3. After some deliberations, the Committee adopted the Draft Report with slight additions in Recommendation No. 4 (Adherence to Bio-Security Measure for Disposal of Carcasses and Infected Material) and Recommendation No. 5 (Awareness Programme). The Committee also authorized the Chairperson to finalize and present the Report to Parliament.

The Committee then adjourned.

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