



**ANIMAL WELFARE BOARD OF INDIA**

Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India  
(Department of Animal Husbandry and Dairying)  
NIAW Campus, 42 Mile Stone, Delhi-Agra Highway  
NH-2, Ballabhgarh, Haryana-121004  
Email: animalwelfareboard@gmail.com : Website: www.awbi.in

**F.No. 3-4/2021-22/PCA**

**Date.05.08.2022**

**TO WHOM SO EVER IT MAY CONCERN**

**General awareness in regard to the Lumpy(Skin)Disease in cattle/  
Bovine.**

The Animal Welfare Board of India (AWBI) is a Statutory Body established under the Prevention of Cruelty to Animal (PCA) Act, 1960 and is an apex body for the protection and safeguard the rights of animals as well as to ensure that the five freedoms of the animals are upheld and no animals are subject to any unnecessary pain or suffering. Also, the AWBI can advise the Government or local authority or other person in regard to prevent unnecessary pain and suffering to animals.

2. It has been brought to the notice of the Board that there has been rapid spread of Lumpy (Skin)Disease across many States. The Lumpy(Skin) Disease is very Contagious in nature and effect the skin of innocent speechless animals especially Cows.

3. The Department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying has issued the guideline which has to be followed by the Animal Welfare organisation or Gaushala's or in any other premises where animals are been kept. Since the disease is primarily effecting the Gaushala and cattle premise,thus theyhave to take proper precaution in this regard. They shall the follow the guidelines of the department of Animal Husbandry and Dairying, Ministry of Fisheries, Animal Husbandry and Dairying, Govt. of India to avoid further spread of the dieses into your establishment.

5. Further, it is stated that, Government of India has enacted Transport of Animals Rules,1978(copy enclosed) giving guidelines for transport of various animals, it was amended in 2001 and 2009. As per Rule 96, a transportation certificateis required to be issued by a person authorized by the Animal Welfare Board of India before transportation any animals. In addition, as per the Rule 47(a), a valid certificate from a qualified veterinary surgeon to the effect that the cattle are in fit condition to travel and are not suffering from any infectious or contagious or parasitic disease and they have been vaccinated.

6. Therefore, in view of the above, it is requested to follow the guidelines for prevention of lumpy skin disease and strictly follow the transportation Rules before transportation any animals.

Yours sincerely,

  
(Dr. S. K Dutta)  
Secretary

**K-11053/69/2019-LH**

**DEPARTMENT OF ANIMAL HUSBANDRY & DAIRYING**

**GUIDELINES FOR PREVENTION OF LSD (LUMPY SKIN DISEASE)**

- 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
  
- 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 infected villages be identified so that precautionary plans will be carried out in a specific area and ring vaccination will be carried out in villages upto 5 km around the affected village.
  - Cattle and buffaloes should be vaccinated with available Goat pox vaccine (cattle and buffalo at the age of 4 months and above through S/C route) with  $10^{3.5}$  TCID<sub>50</sub> of GTPV vaccine (Uttarkashi Strain). However, The dose of  $10^{3.0}$  TCID<sub>50</sub> (same dose of vaccine for goat against goat pox) can be used for prophylactic vaccination/ring vaccination in cattle and buffalo.
  - Affected animals should not be vaccinated
  - Preventive vaccination should also be undertaken in high risk areas like border area of affected district and state and animals should be identified and documented
  - The staff and vaccinators should be trained for vaccination drive including storage and preparation of vaccine, dosing and injection and identification of animals
  
- 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

- 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 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):** Format, guidelines including general and transport guidelines may be seen at [http://www.nihsad.nic.in/pdf/LSD\\_%20REVISED%20Guidelines%20for%20Sample%20Collection%20and%20Dispatch%20for%20Diagnosis%20of%20Lumpy%20Skin%20Disease.pdf](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.

## **9. Related suggestions:**

- a) Strict implementation of advisories
- b) Strict implementation of bio-security measures
- c) Movement restriction and isolation of 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
- 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.
- 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
- 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.
- z) Proper TA/DA and incentives should be given and announced for veterinarians, para-veterinarians and other staff to motivate them in disease control operations.

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## Advisory - Lumpy Skin Disease (LSD)

Lumpy skin disease (LSD) is an infectious viral disease of cattle and buffaloes caused by the *Capripox* virus of family *Poxviridae*. It is transmitted by arthropod vectors such as mosquitoes, biting flies and ticks. The disease is characterised by mild fever for 2-3 days followed by development of stiff, round cutaneous nodules (2-5 cm in diameter) on the skin all over the body. These nodules are circumscribed, firm, round, raised and involves the skin, sub-cutaneous tissue and sometimes muscles. Symptoms may include lesions in mouth, pharynx and respiratory tract, emaciation, enlarged lymph nodes, oedema of limbs, reduction in milk production, abortion, infertility and sometimes, death.



Although infected animals often recover within a period of 2-3 weeks, there is reduction in milk yield in lactating cattle for several weeks. The morbidity rate is around 10-20% and mortality rate is around 1-5%.

### Clinical Surveillance

Clinical surveillance of susceptible cattle population for nodular skin lesions should be carried out along with recording of morbidity and mortality data in LSD-suspected areas. Monthly clinical surveillance data should be communicated to DAHD in the format annexed.



### Referral of Samples from clinically affected animals

Representative samples (EDTA blood and skin biopsies/scabs) from animals in LSD suspected outbreaks should be referred to ICAR-NIHSAD, Bhopal for laboratory testing.

### Prevention and Control:

- a) Immediate isolation of sick/ infected animals from the healthy animals

- b) Any animal suspected of febrile nodular skin disease should not be introduced into the unaffected holding or farm
- c) In affected villages and animal holdings, the affected animal should be kept separate from unaffected animals by avoiding common grazing and thereby direct contact
- d) Efforts should be made to reduce the vector population in affected areas. Unaffected animal should be applied with insect (ticks, flies, mosquitoes, fleas, midges) repellent to minimize mechanical transmission of LSD
- e) Ensure strict control of animal movement from affected areas to free areas and to local animal markets
- f) Trade of live cattle, participation in fairs, shows should be banned immediately upon confirmation of the disease in the affected areas
- g) All biosecurity measures and strict sanitary measures for disposal of personal protective equipment (PPE) etc. used during sampling from affected animals should be followed
- h) Cattle markets located within 10 km radius of the epicentre of infection should be closed
- i) Thorough cleaning and disinfection of affected personnel, premises and contaminated environment including 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), quaternary ammonium compounds (0.5%)].



**Bovine Semen:**

1. Semen should not be collected and processed for frozen bovine semen production and distribution from the animals showing clinical sign of LSD
2. The blood and semen from affected and clinically recovered animals shall be subjected to agent detection by PCR with negative results before use for AI/natural service

**Awareness campaign**

Awareness campaign regarding the clinical signs and production losses due to LSD shall be conducted. Reporting to the veterinary authority should be done immediately when suspected cases are noticed.

## Treatment

- a. Sick animals are to be kept in isolation
- b. Symptomatic treatment of affected animals may be carried out in consultation with veterinarian
- c. Administration of antibiotics for 5-7 days to check secondary infection may be considered on case to case basis to check secondary bacterial infection.
- d. Administration of anti-inflammatory and anti-histamine preparation may also be considered.
- e. In case of pyrexia, paracetamol can be given
- f. Application of antiseptic ointment with fly-repellent property over the eroded skin is recommended
- g. Parenteral / oral multivitamins is advised.
- h. Feeding of liquid food, soft feed and fodder and succulent pasture is recommended for the infected animals.



## Disposal of carcass of LSD-affected animals

In cases of mortality, animal carcass should be disposed of by deep burial.



Annexure

Format for Reporting on Monthly clinical surveillance data on LSD

Month:

Name of the State:

| Sl. No | No. of Samples screened at State level | No. of Samples submitted to NIHSAD, Bhopal | No. of animals found positive | Name of the District |
|--------|--|--|-------------------------------|----------------------|
|        |  |  |                               |                      |
|        |  |  |                               |                      |
|        |  |  |                               |                      |

**Information for Immediate Notification of Lumpy Skin Disease  
(Separate sheet for each epicenter)**

| Name of Epicenter -  | Details to be given                 |
|--|-------------------------------------|
| 1) Date of start of the event / outbreak /symptoms noticed                                   |                                     |
| 2) Date of sample submission   |                                     |
| 3) Date of confirmation of the event by NIHSAD or RDDDL                                      |                                     |
| 4) Name of the state, district, block, village i.e. details of the epicentre of the outbreak |                                     |
| 5) Type of establishment   |                                     |
| 6) Latitude and longitude of the epicentre   |                                     |
| 7) Animal species affected and number of each species affected                               | Cattle<br>Buffalo<br>Others specify |
| 8) Number of susceptible animals   | Cattle<br>Buffalo<br>Others specify |
| 9) Number of cases   | Cattle<br>Buffalo<br>Others specify |
| 10) Number of animals died (mortality cases)   | Cattle<br>Buffalo<br>Others specify |
| 11) Number of animals killed and disposed of   |                                     |
| 12) Number of animals slaughtered (meat used for human consumption)                          |                                     |
| 13) Epidemiological findings   |                                     |
| 14) Control measures applied   |                                     |
| 15) Whether treatment given to animals, if so specify  |                                     |
| 16) If Vaccination done name of the vaccine and animals vaccinated                           |                                     |
| 17) Date of end of the event or outbreak if all animals have recovered                       |                                     |

The relevant provisions of the Transport of Animals, Rules, 1978 are as follows:

#### CHAPTER IV

#### TRANSPORT OF CATTLE

47.(a) A valid certificate by a qualified veterinary surgeon to the effect that the cattle are in a fit condition to travel by rail or road and are not suffering from any infectious or contagious or parasitic diseases and that they have been vaccinated against rinderpest and any other infectious or contagious or parasitic diseases, shall accompany each consignment.

Transport animal rules, 2009

“50. The average space provided per cattle in Railway wagon or vehicle shall be as provided in Tables I and II as given below

TABLE - I

#### Space Allowance per Cattle

|                              |                          |
|------------------------------|--------------------------|
| Cattle weighing upto 200 Kg  | 1 Square Meter (Sq.mtr.) |
| Cattle weighing 200-300 Kg   | 1.20 Square Meter        |
| Cattle weighing 300-400 Kg   | 1.40 Square Meter        |
| Cattle Weighing above 400 Kg | 2.0 Square Meter         |

TABLE - II

#### Space requirement for Cattle while being transported in commonly sized road vehicles

51. (a) Suitable rope and platforms should be used for loading cattle from vehicles.  
(b) In case of railway wagon the dropped door of the wagon may be used as a ramp when loading or unloading is done to the platform.

52. Cattle shall be loaded after they are properly fed and given water.

53. Cattle in advanced stage of pregnancy shall not be mixed with young cattle in order to avoid stampede during transportation.

54.(1) Watering arrangements on route shall be made and sufficient quantities of water shall be carried for emergency.

(2) Sufficient feed and fodder with adequate reserve shall be carried to last during the journey.

(3) Adequate ventilation shall be ensured.

55. When cattle is to be transported by rail.

(a) An ordinary goods wagon shall carry not more than ten adult cattle or fifteen calves on

broad gauge, not more than six adult cattle or ten calves on metre gauge, or not more than four cattle or six calves on narrow gauge.

(b) Every wagon carrying cattle shall have at least one attendant.

(c) Cattle shall be loaded parallel to the rails, facing each other.

(d) Padding material such as straw, shall be placed on the floor to avoid injury if a cattle lies down and this shall not be less than 6 cms thick.

(e) Rations for the journey shall be carried in the middle of the wagon.

(f) To provide adequate ventilation, upper door of one side of the wagon shall be kept open

properly fixed and the upper door of the wagon shall have wire gauge closely welded mesh

arrangements to prevent burning cinders from the engines entering the wagon and leading to fire outbreak.

(g) Cattle wagon should be attached in the middle of the train.

(h) Cooking shall not be allowed in the wagons nor hurricane lamps without chimneys.

(i) Two breast bars shall be provided on each side of the wagon, one at height of 60 to 80 cm and the other at 100 to 110 cm.

(j) Cattle-in-milk shall be milked at least twice a day and the calves shall be given sufficient quantity of milk to drink.

(k) As far as possible, cattle may be moved during the nights only.

(l) During day time, if possible, they should be unloaded, fed, given water and rested and if in milk, milking shall be carried out.

56. When cattle are to be transported by goods vehicle, the following precautions are to be taken namely:

(a) Specially fitted goods vehicles with a special type of tail board and padding around the sides should be used.

(b) Ordinary goods vehicles shall be provided with anti-slipping material, such as coir matting or wooden board on the floor and the superstructure, if low, should be raised.

(c) No goods vehicle shall carry more than six cattle.

(d) Each goods vehicle shall be provided with one attendant.

(e) While transporting, the cattle, the goods, vehicles shall not be loaded with any other merchandise; and

(f) to prevent cattle being frightened or injured, they should preferably, face the engine.

## Chapter IX

### MISCELLANEOUS

#### **96. Issue of certificate before transportation -**

(1) A valid certificate issued by an officer or any person or Animal Welfare Organisation duly recognised and authorised for this purpose by the Animal Welfare Board of India or the Central Government shall be procured by any person making transport of any animal before transportation of such animal verifying that all the relevant Central and State Acts, rules and orders pertaining to the said animals including the rules relating to transport of such animals have been duly complied with and that the animal is not being transported for any purpose contrary to the provision of any law.

(2) In the absence of such certificate, the carrier shall refuse to accept the consignment for transport. Explanation: For the purpose of this rule the certificate shall be issued in such form as may be specified for this purpose by the Central Government.