

Today's Important Topic for UPSC CSE Aspirants (Lumpy Skin Disease)

Comprehensive Explanation for Questions:

Inside Story of the News (Lumpy Skin Disease):

- A division bench of the Telangana High Court recently expressed its dissatisfaction with the lack of specific details about measures taken to control the outbreak of Lumpy Skin Disease (LSD) in cattle.
- The court directed the State government and Animal Husbandry Department authorities to submit an affidavit explaining the steps they have implemented to curb the spread of the disease.
- **Lumpy skin disease (LSD) is a poxviral disease with significant morbidity in cattle.**
- The disease is known by various names such as “LSD”, “Pseudo-urticaria”, “Neethling virus disease”, “exanthema nodularis bovis”, and “knopvelsiekte”.
- LSD is a non-zoonotic, vector borne and transboundary disease with limited host range and currently restricted to ruminants viz. cattle and water buffaloes.
- **It is not a zoonotic virus, meaning the disease cannot spread to humans.**
- The disease is characterized by fever, lymph node swelling, circumscribed nodules on skin causing severe emaciation, reduction in milk production, infertility.
- Lumpy Skin Disease is caused by the Lumpy Skin Disease Virus (LSDV), which belongs to the genus capripoxvirus, a part of the poxviridae family (smallpox and monkey pox viruses are also a part of the same family) **that contains group of viruses causing diseases in most of the domestic animals except dog.**
- The LSDV shares antigenic similarities with the sheep pox virus (SPPV) and the goat pox virus (GTPV) or is similar in the immune response to those viruses.
- **It is a contagious vector borne disease spread by vectors like mosquitoes, some biting flies and ticks and usually affects host animals like cows and water buffaloes.**
- Although the mortality rate is generally low, economic losses result from loss of condition, decreased milk production, abortions, infertility, and damaged hides.
- **The causative virus seems to be spread mainly by blood-feeding insects, such as certain species of flies and mosquitoes or ticks, and outbreaks can be widespread and difficult to control.**
- **LSD was first reported in Asia and the Pacific region in 2019 in north-west China, Bangladesh, and India.**
- During the northern summer of 2020, LSD has continued its spread across continental Asia with many members in South and Southeast Asia confirming outbreaks.
- **The first case of LSD was reported from Zambia in 1929** and then in southern and northern African countries.
- Symptoms:
 - **LSD affects the lymph nodes of the infected animal, causing the nodes to enlarge and appear like lumps on the skin, which is where it derives its name from.**
 - **The cutaneous nodules, 2–5 cm in diameter, appear on the infected cattle's head, neck, limbs, udder, genitalia, and perineum.**

- The nodules may later turn into ulcers and eventually develop scabs over the skin.
- **The other symptoms include high fever, sharp drop in milk yield, discharge from the eyes and nose, salivation, loss of appetite, depression, damaged hides, emaciation (thinness or weakness) of animals, infertility, and abortions.**
- **The incubation period or the time between infection and symptoms is about 28 days according to the FAO and 4 to 14 days according to some other estimates.**
- Transmission:
 - **It is transmitted by blood-feeding insects, such as certain species of flies and mosquitoes, or ticks.**
 - **It is transmitted by the movement of affected animals.**
 - **It is transmitted by directly from animals to animals in some cases.**
 - **It is transmitted by contaminated equipment.**
- Treatments:
 - **It has no direct antiviral treatment.**
 - Instead, the infected animals receive supportive care, which involves the use of antibiotics, painkillers, and wound care sprays to treat symptoms.
 - As there's no treatment, vaccines are used to control disease transmission.
 - The disease is of economic importance as it can cause a temporary reduction in milk production, temporary or permanent sterility in bulls, damage to hides, and, occasionally, death.

Source : <https://rr-asia.woah.org/en/projects/lumpy-skin-disease-lsd/>

; <https://www.thehindu.com/news/national/explained-what-is-the-lumpy-skin-disease-affecting-cattle-in-india-what-are-its-economic-implications-and-does-it-affect-milk-for-consumption/article65911590.ece>

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; <https://www.eurl-capripox.be/lumpy-skin-disease>