



Lumpy Skin Disease in India: Prevalence, Regional Spread and Its Impact on Cattle Health

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Lumpy skin disease (LSD) has become a major concern for cattle health and dairy farming in India. Caused by a virus belonging to the genus *Capripoxvirus*, the disease is characterised by fever, firm skin nodules, enlarged lymph nodes and, in some cases, swelling of the limbs, reduced milk production and reproductive problems. It spreads mainly through blood-feeding insects and ticks, making control difficult in areas where cattle are kept outdoors or where vector populations are high.

How widespread is LSD in India?

LSD was first officially confirmed in India in West Bengal and Odisha in September 2019. Since then, outbreaks have occurred in multiple states, with a major epidemic in 2022 and further outbreaks in subsequent years. Its spread has highlighted the vulnerability of cattle populations to emerging infectious diseases and the importance of coordinated veterinary surveillance. The scale of the disease has varied over time. Government reporting documented approximately 33.5 lakh cases in 2022, followed by a substantial decline as vaccination and other control measures were intensified. During 2024, LSD was reported in states including West Bengal, Tamil Nadu, Gujarat, Andhra Pradesh, Rajasthan, Karnataka, Goa, Madhya Pradesh, Odisha, Sikkim, Kerala and Maharashtra. In July 2025, the Union Government reported the disease in ten states, with active cases then reported only in Maharashtra. The situation changed again in 2026. According to the Department of Animal Husbandry and Dairying, sporadic cases were reported from July 2026, particularly in Uttar Pradesh, Rajasthan, Himachal Pradesh, Haryana, Punjab and Uttarakhand. On 8 September 2026, the government reported 3,461 active cases nationally, mainly among young and unvaccinated cattle and animals with other health problems. These figures represent reported cases at particular points in time; they should not be interpreted as the percentage of India's cattle population infected.

Understanding prevalence and regional differences

Prevalence is the proportion of animals affected within a defined population during a specified period. It is different from the number of reported outbreaks, cumulative cases or currently active cases. For example, a district reporting 500 affected cattle may have a higher prevalence than another district reporting 1,000 cases if the first district has a much smaller cattle population. The prevalence of LSD can differ markedly between districts and farms. Important factors include vaccination coverage, cattle density, movement of infected animals, the abundance of biting insects, animal housing and the speed with which affected cattle are identified. Differences in surveillance and reporting can also influence the apparent disease burden. Consequently, reliable comparisons require both the number of affected animals and the total cattle population under observation. Local outbreaks may be particularly disruptive in dairy-dependent communities, where even a temporary reduction in milk yield can affect household income. A regional outbreak figure therefore needs to be considered alongside

animal deaths, recovery rates, production losses and the resources available for veterinary treatment.

Clinical and economic consequences

Affected cattle commonly develop multiple firm nodules on the skin, which may occur over the head, neck, trunk, limbs and udder. Fever, loss of appetite, enlarged lymph nodes and weakness may accompany the lesions. Some animals develop secondary bacterial infections, tissue damage or difficulty moving. Pregnant animals may experience reproductive complications, while bulls can develop temporary or prolonged reproductive problems in severe cases. The economic burden extends beyond mortality. Farmers may face veterinary expenses, reduced milk production, weight loss, restrictions on animal movement and the cost of insect control and vaccination. Hides may also lose value when extensive skin lesions leave scars. These effects can be especially serious for smallholders who depend on a few dairy animals for their daily income. Although LSD can spread rapidly through susceptible cattle populations, its severity is not uniform. Many animals recover with appropriate supportive care, while severe disease and deaths may occur in vulnerable animals or when complications develop. The Indian government reported a recovery rate of approximately 95% among affected animals during 2024–25, attributing the improvement mainly to biosecurity and vaccination measures.

Vaccination and disease-control measures

Vaccination is a key component of LSD prevention. India's government has expanded vaccination efforts substantially: by September 2026, more than 36.18 crore vaccination and revaccination doses for cattle had been reported cumulatively [4]. This is a cumulative programme figure, not the number of animals currently immune, and it does not mean that every cattle population has equal protection. Effective control also requires early reporting, isolation of suspected and confirmed cases, quarantine of newly introduced cattle, disinfection of equipment and transport vehicles, and measures to reduce biting insects. Veterinary authorities may also recommend movement restrictions or targeted vaccination around affected areas. Farmers should consult local animal-husbandry services about the appropriate vaccine and schedule rather than relying on unverified treatments. Surveillance needs to distinguish between clinical prevalence, laboratory-confirmed infection and seroprevalence. Clinical prevalence measures animals showing disease; laboratory confirmation helps establish the cause; and seroprevalence measures animals with detectable antibodies, which may reflect vaccination or previous exposure. These indicators provide different information and should not be used interchangeably.

Conclusion

Lumpy skin disease remains an important animal-health challenge in India, despite substantial progress in vaccination and outbreak control. Its prevalence varies across states and districts according to immunity, vector activity, animal movement and local management. Continued surveillance, reliable reporting, vaccination and farmer awareness are essential to prevent renewed outbreaks and reduce losses. A clearer picture of LSD prevalence will require consistent district-level data on affected animals, total cattle populations, vaccination status, recoveries and deaths.

References

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