

Infectious Bovine Rhinotracheitis (IBR)

Prelims: Current events of national and international importance

Why in news?

India's first indigenously developed vaccine against infectious bovine rhinotracheitis (IBR) was launched recently.

- IBR is a highly contagious and infectious viral disease that affects cattle of all ages.
- **Caused by** - Bovine Herpes Virus (BHV-1)
- It is endemic in India.
- **Characterized by** - Inflammation of the upper respiratory tract and disease of the reproductive tract.
- Clinical signs are influenced by the age of the animal, the dose of virus, route of infection and whether other agents are also present.
- **Transmission** - It spreads through direct contact between infected and susceptible animals, through air (aerosols), and via humans and contaminated equipment, water, or semen.
- **Symptoms** - Respiratory ones, conjunctivitis, occasional coughing, poor milk yield, lose their appetite, high fever (41-42°C) with purulent ocular and nasal discharges.
- **Mortality rate** - During an outbreak of IBR, the morbidity rate may be 100% but the mortality rate is generally less than 2%.
- **Diagnosis of IBR** - Serology (blood samples) or the real-time PCR method.
- **Treatment** - There is no specific treatment for the virus itself, but antibiotics can be used to manage secondary bacterial infections that often accompany IBR.
- **Control of IBR** - By Selective culling, Systematic vaccination against the target species, Biosecurity, and Monitoring.
- **Vaccination** - Modified-live and inactivated vaccines are available and are a key part of IBR control programs.

So far, In India there is no specific vaccine and treatment available against this disease.

- **Impacts** - Infertility, abortions and lower milk productivity which leads to economic loss in the cattle industry.

Quick Fact

Raksha-IBR Vaccine

- **Developed by** - Indian Immunologicals Limited (IIL)
- **Launched** - In collaboration with National Dairy Development Board
- **Treats** - Infectious bovine rhinotracheitis (IBR) in cattle
- ***1st indigenously developed*** glycoprotein E (gE) deleted DIVA (Differentiating Infected from Vaccinated Animals) marker vaccine.

References

1. [The Hindu | India's first gE deleted DIVA marker vaccine](#)
2. [MSD Animal Health | Infectious bovine rhinotracheitis \(IBR\)](#)

