



RINDERPEST FREQUENTLY ASKED QUESTIONS

What is rinderpest?

Rinderpest, or cattle plague, is a contagious and highly-fatal disease of cattle, buffaloes, yaks and many other artiodactyls (even-toed ungulates), both domesticated and wild. Vulnerable animals include swine, giraffes and kudus. Rinderpest is caused by a morbillivirus related to human measles, canine distemper and peste des petits ruminants.

What are the clinical signs?

Affected animals have a high fever, depression, nasal/ocular discharges, erosions in the mouth and the digestive tract, along with diarrhea. The animals rapidly become dehydrated and emaciated, dying one week or so after showing signs of the disease.

Does rinderpest infect humans?

Rinderpest is not known to infect humans, but its impact on cattle and other animals has had a tremendous impact on human livelihoods and food security, due to its ability to wipe out entire herds of cattle in a matter of days.

Where did rinderpest come from and where did it strike?

Rinderpest is an ancient disease whose signs were recognized long before it bore its current name. The virus could well have been the origin of human measles when people first started to domesticate cattle, more than 10,000 years ago. Historical accounts suggest that rinderpest originated in the steppes of Central Eurasia, later sweeping across Europe and Asia with military campaigns and livestock imports. In the nineteenth and twentieth centuries, the disease devastated parts of Africa. Rinderpest also appeared briefly in the Americas and Australia with imported animals, but was quickly eliminated.

How much of an impact has rinderpest had on history?

Rinderpest epidemics and resulting losses preceded the fall of the Roman empire, the conquest of Christian Europe by Charlemagne, the French Revolution and the impoverishment of Russia. When rinderpest was introduced into sub-Saharan Africa, at the end of the 19th century, it triggered extensive famines and opened the way for the colonization of Africa. In the 1940s in China, it became clear that significant agricultural development was not possible while rinderpest went unchecked. Subsequent control of the disease worldwide contributed to the Green Revolution in agricultural production.

Why has rinderpest eradication been a priority for FAO?

Since its formation in 1945, FAO has recognized that the control of rinderpest was necessary for the improvement of agricultural development, food security and the protection of natural ecosystems. The social and economic implications of the disease also contributed to the creation of veterinary colleges in Europe and Asia, as well as the establishment of major international organizations, including the Office International des Epizooties (OIE), now the World Organisation for Animal Health, and FAO.



What is GREP?

GREP, the Global Rinderpest Eradication Programme, was created at FAO in 1994 to address a gap in international efforts to eliminate rinderpest and ultimately, to verify freedom from the disease. After decades of efforts to stamp out the disease, countries and institutions agreed they needed a single, cohesive approach, with additional technical and financial support, to outrun, isolate and eliminate a disease that kept crossing borders.

Through GREP, FAO, in close collaboration with the World Organisation for Animal Health (OIE), has coordinated a vast cadre of institutional partners like the United Nations Development Programme, the International Atomic Energy Agency, regional organisations like the African Union's Interafrican Bureau for Animal Resources, donors like the European Union, USAID, the UK Department for international Development, national governments, NGOs and communities.

What does eradication mean in practical terms?

Global eradication of rinderpest required scientific verification that the disease was no longer circulating in the wild, though virus samples would remain in laboratory settings. The last confirmed outbreak anywhere in the world was recorded in Kenya in 2001. FAO halted all field activities in October 2010, after 9 years without the disease, and following a virus search in the last remaining ecosystems.

What made rinderpest eradication possible?

Excellent science, close international coordination, and the commitment of people at the community, national, regional and international levels helped to make rinderpest eradication possible. A key component in rinderpest control was a groundbreaking vaccine, developed in the 1950s by Dr Walter Plowright in Kenya. It is considered one of the world's safest and most effective vaccines.

Vaccines were used to protect cattle populations when rinderpest was rampant. As the disease was brought under control, movement restrictions, combined with quarantines, gained importance. GREP promoted a strategy to withdraw mass vaccinations, allowing veterinary investigators to disclose, and vaccinate against, reservoirs of endemic rinderpest.

Can rinderpest come back?

All scientific indications are that rinderpest has been eliminated from all but a few laboratory samples. GREP's post-eradication strategy includes reviewing and ensuring sequestration of all remaining infectious rinderpest virus samples and developing a contingency plan for unexpected outbreaks. Priority will be placed on ongoing disease surveillance, continued training, and communication by countries to FAO and OIE of any suspicious cases.