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Ten reasons for NOT maintaining or storing rinderpest virus







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The best way to protect a country from an outbreak of rinderpest virus infection is to not have the virus in the country in the first place.

The status of successful global eradication of rinderpest infection from domestic and wild susceptible animals should be maintained with vigilant observations and monitoring of remaining rinderpest virus stocks. Although it is accepted that there might be a need for critical research and development work with rinderpest field virus, or rinderpest attenuated vaccine virus, approval for such work must first be obtained from FAO and OIE. Remaining stocks of rinderpest virus should be held in a limited number of approved "reference" laboratories/facilities. Once experimental work is approved, reference laboratories will undertake to make virus available to the interested party(s) with a valid reason for conducting well founded research and/or vaccine production. On a case by case basis transfer of rinderpest virus to another institute may be approved only when certain biorisk management conditions are met. Ownership issues should be agreed between the two parties and it may be possible for the originator to retain ownership of the virus. A decision to maintain rinderpest virus in a laboratory environment requires careful consideration and matching resources. The virus may escape from the laboratory as a result of human error or infrastructure malfunction, even when a high level of physical biosecurity is maintained.

The following unfortunate consequences, resulting from release of rinderpest virus, can be prevented by not storing rinderpest virus containing material in a country:

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The country hosting the facility from which the rinderpest virus escaped would lose its rinderpest free status once a case is confirmed; even in one animal

(see the OIE *Terrestrial Code*). If disease freedom is not regained quickly or if the disease spreads to other countries, global rinderpest freedom would be lost. This would undermine decades of international effort and investment to eradicate the disease leading to immense embarrassment and a huge loss of credibility for the country responsible for the release. Reattainment of rinderpest free status may not be possible in the short to mid-term.

Infection of susceptible livestock with rinderpest virus will be associated with severe economic and political consequences linked to disruption of trade in animals and animal products. This will affect the country in which the release occurred and its neighbours, with wider implications for the entire international community, until disease free status is regained. Economic losses through trade restrictions may push some of the population, dependent on agriculture for an income, further into poverty. In some countries, the economic impacts may reverse attempts to alleviate poverty through livestock development.

Re-introduction of rinderpest into a naïve animal population will lead to high mortality in susceptible livestock and major losses to animal production normally required to provide food resources to millions of people throughout the world. As a result of production losses, food security for millions of families in affected developing countries will come under threat. This may result in starvation, malnutrition and social unrest.

Animal-based food industries within and outside the country would be paralyzed due to the restrictions in animal and animal product movement that will be imposed due to the confirmation of the presence of rinderpest infection.

- There is a potential for losses within susceptible wildlife animals and rare breeds of livestock. This may hinder the global effort to preserve biodiversity and to save some threatened rare wildlife species.
- The welfare of many animals will come under threat as a result of severe disease and control measures needed to control the diseases.
- An intensive and comprehensive rinderpest control campaign may need to be launched. Veterinary animal health resources will have to be diverted from other important tasks including the surveillance and control of other important diseases such as contagious bovine pleuropneumonia (CBPP), foot and mouth disease (FMD), brucellosis. This is likely to lead to resurgence in some infectious animal diseases and zoonoses.
- International confidence in the biosecurity system of the country responsible for the release would be damaged.
- There may be reversion or mutation of vaccine or wild rinderpest strains to become more virulent.
- The cost of safely maintaining rinderpest virus in a laboratory may be significant and the burden of responsibility in ensuring safe storage will be high. Weighed against the negligible commercial value or research benefits in keeping the virus, there is little point in maintaining stores of rinderpest virus.