APHIS Plant Pathogens, HHS Select Infectious Agents, and USDA High Consequence Livestock Pathogens or Toxins

Viruses

1. African horse sickness virus β
2. African swine fever virus β
3. Akabane virus β
4. Avian influenza virus (highly pathogenic) β
5. Blue tongue virus (exotic) β
6. Camel pox virus β
7. Cercopithecine herpes virus (Herpes B virus) ψ
8. Classical swine fever virus β
9. Crimean-Congo haemorrhagic fever virus ψ
10. Eastern equine encephalitis virus ψ
11. Ebola viruses ψ
12. Foot and mouth disease virus β
13. Goat pox virus β
14. 1918 influenza virus ψ
15. Japanese encephalitis virus β
16. Lassa fever virus ψ
17. Lumpy skin disease virus β
18. Malignant catarrhal fever β
19. Marburg virus ψ
20. Menangle virus β
21. Monkeypox virus ψ
22. Newcastle disease virus (virulent)* β
23. Nipah and Hendra complex viruses χ
24. Peste des petits ruminants β
25. Rift Valley fever virus χ
26. Rinderpest virus β
27. Sheep pox virus β
28. South American haemorrhagic fever viruses [(Junin, Machupo, Sabia, Flexal, Guanarito)] ψ
29. Swine vesicular disease virus β
30. Tick-borne encephalitis complex (flavi) viruses [Central European Tick-borne encephalitis, Far Eastern Tick-borne encephalitis (Russian Spring and Summer encephalitis, Kyasanur Forest disease, Omsk Hemorrhagic Fever)] ψ
31. Variola major virus (Smallpox virus) and Variola minor (Alastrim) ψ
32. Venezuelan equine encephalitis virus χ
33. Vesicular stomatitis virus (exotic): Indiana subtypes VSV-IN2, VSV-IN3 β

Prion

1. Bovine spongiform encephalopathy agent β

Toxins

1. Abrin (> 100 mg) ψ
2. Botulinum neurotoxins (>0.5 mg) ψ
3. *Clostridium perfringens* epsilon toxin (> 100 mg) ψ
4. Conotoxins (>100 mg) ψ
5. Diacetoxyscirpenol (>1,000 mg)ψ
6. Ricin (> 100 mg)ψ
7. Saxitoxin (> 100 mg) ψ
8. Shigatoxin (> 100 mg) ψ
9. Shiga-like ribosome inactivating proteins (> 100 mg) χ
10. Staphylococcal enterotoxins (> 5 mg) ψ
11. Tetrodotoxin (> 100 mg) ψ
12. T– 2 toxin (> 1,000 mg) ψ

Bacteria

1. *Bacillus anthracis* χ
2. Botulinum neurotoxin producing strains of *Clostridium* ψ
3. *Brucella abortus* χ
4. *Brucella melitensis* χ
5. *Brucella suis* χ
6. *Burkholderia mallei* χ
7. *Burkholderia pseudomallei* χ
8. *Cowdria Ruminantium* (Heartwater) β
9. *Coxiella burnetii* ψ
10. *Francisella tularensis* ψ
11. *Mycoplasma capricolu*/*M.* F38/*M. mycoides capri* (contagious caprine pleuropneumonia agent) β
12. *Mycoplasma mycoides mycoides* (contagious bovine pleuropneumonia agent) β
13. *Ralstonia solanacearum* Race 3 α
14. *Rathayibacter toxicus* α
15. *Rickettsia prowazekii* ψ
16. *Rickettsia rickettsii* ψ
17. *Xanthomonas oryzae* α
18. *Xylella fastidiosa* (citrus variegated chlorosis strain) α
19. *Yersinia pestis* ψ

Fungi

1. *Coccidioides immitis* ψ
2. *Coccidioides posadasii* ψ
3. *Peronosclerospora philippinensis (Peronosclerospora sacchari)* α
4. *Phoma glycinicola* α
5. *Sclerophthora rayssiae var zeae* α
6. *Synchytrium endobioticum* α

Exemptions

The following select agents or toxins are exempt:

- Any select agent or toxin that is in its naturally occurring environment provided it has not been intentionally introduced, cultivated, collected, or otherwise extracted from its natural source.
- Non-viable select agent organisms or nonfunctional toxins.
- Toxins under the control of a principal investigator, treating physician or veterinarian, or commercial manufacturer or distributor, if the aggregate amount does not, at any time, exceed the amount listed in parenthesis next to the toxin.
- Medical use of toxins for patient treatment.
- Additional exemptions are listed on the CDC website. http://www.cdc.gov/od/sap/sap/exclusion.htm

Genetic Elements, Recombinant Nucleic Acids, and Recombinant Organisms

1. Nucleic acids that can produce infectious forms of any of the select agent viruses.
2. Recombinant nucleic acids that encode for the functional form(s) of any of the select agent toxins if the nucleic acids: a) a) can be expressed *in vivo* or *in vitro*; or b) are in a vector or recombinant host genome and can be expressed *in vivo* or *in vitro*.
3. Select agents that have been genetically modified.

Other Restrictions

1. Experiments utilizing recombinant DNA that involve the deliberate transfer of a drug resistance trait to the listed agents that are not known to acquire the trait naturally, if such acquisition could compromise the use of the drug to control disease agents in humans, veterinary medicine, or agriculture.
2. Experiments involving the deliberate formation of recombinant DNA containing genes for the biosynthesis of listed toxins lethal for vertebrates at an LD50 < 100 ng/kg body weight.

Clarification

* A virulent Newcastle disease virus (avian paramyxovirus serotype 1) has an intracerebral pathogenicity index in day-old chicks (*Gallus gallus)* of 0.7 or greater or has an amino acid sequence at the fusion (F) protein cleavage site that is consistent with virulent strains of Newcastle disease virus. A failure to detect a cleavage site that is consistent with virulent strains does not confirm the absence of a virulent virus.

α APHIS Plant Pathogen ψ HHS Select Infectious Agent β USDA High Consequence Livestock Pathogen or Toxin χ USDA-HHS Overlap Agent