

**Addendum to the FY2019 USDA Annual Report of Research Facility (APHIS form 7023)**  
**Explanation of Procedures in Category E-Ferrets**  
**Registration Number 63-R-0007**

A total of 3 ferrets (*Mustela putorius furo*) used during the fiscal reporting year. Our institution is a collaborative center of the World Health Organization Laboratory (WHO) for influenza vaccine research and discovery. Seven protocols utilize ferrets for which the experimental design involves studies to determine the pathogenicity of highly pathogenic influenza A viruses of the H1, H5 and H7 subtypes. Ferrets are uniquely appropriate for this research because they precisely mirror the human condition relative to contagiousness and development of clinical symptoms of influenza. The clinical signs of disease range from pneumonia to central nervous system deficits that can be fatal for some animals on study. Analgesics are not utilized in these animals because of the potential to mask the effects of the virus resulting in the inability to establish the pathogenic index which is essential for implementing policies regarding the eradication of influenza viruses with disease potential in animals and humans. In general, animals that are unable to eat, drink or move around and/or have sustained greater than 30% weight loss will be immediately euthanized.

**Ref:**

Highly pathogenic avian influenza (fowl plague): Manual of standards for diagnostics tests and vaccines. Office International des Epizooties, Paris, France. pp123-129. 1992.

Manual of Diagnostic Tests and Vaccines for Terrestrial Animals: Avian Influenza, OIE World Organization for Animal Health, Chapter 2.7.12., [www.oie.int](http://www.oie.int).

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