**HPAI RESPONSE PLAN** *THE RED BOOK – Draft August 2015*

**5.2.2 Case Definitions**

The following sections include draft case definitions developed by APHIS VS Science, Technology, and Analysis Services (STAS) CEAH Surveillance Design and Analysis as of August 2015. These definitions may be revised at any time based on current epidemiological information.

**5.2.2.1 CASE DEFINITION**

**1. *General comments:***Domestic poultry defined as having illness compatible with OIE

reportable AI infection (H5/H7 HPAI and LPAI) are those with flocks that experience mortality as

listed for each compartment as follows:

a. Commercial broilers: mortality exceeding 3.5 birds/1,000 per day.

b. Commercial layers: mortality exceeding 3 times the normal daily mortality per day (normal: 0.13 birds/1,000 per day for layers from 2 to 50 weeks, and 0.43 birds/1,000 per day for layers over 50 weeks); **OR** 5 percent drop in egg production for 3 consecutive days.

c. Commercial turkeys: mortality exceeding 2 birds/1,000 per day.

d. Broiler breeders: mortality exceeding 2 birds/1,000 per day.

e. Layer breeders: mortality exceeding 3 times the normal daily mortality per day (normal: 0.2 birds/1,000 per day prior up to 50 weeks, and 0.37 birds/1,000 per day after 50 weeks).

f. Turkey breeders: mortality exceeding 2 birds/1,000 per day; **OR** a decrease in egg production of 15 percent occurring over a 2-day period.

g. Small volume high-value commercial poultry and backyard flocks: any sudden and significant mortality event or sudden drop in egg production should be investigated.

**2. *Suspect case:***Domestic poultry with:

a. Illness compatible with H5/H7 AI infection; **OR**

b. Positive AGID or ELISA samples taken during routine surveillance with or without the presence of compatible illness; **OR**

c. Detection by ACIA using a commercially available influenza A antigen (test kit approved by APHIS) with the presence of compatible illness.

**3. *Presumptive positive case:***

a. A suspect positive case as defined above with detection of antibodies to influenza A in sera as determined by AGID serological test that cannot be explained by vaccination (USDA permission required for use in the United States), and subsequent subtyping by HI and NI as H5 or H7 with any NA subtype; **OR**

b. Domestic poultry with identification of influenza A RNA by rRT-PCR with or without the presence of compatible illness.

**4. *Confirmed positive case:***Domestic poultry with antigen detection (virologic or molecular detection methods) **AND** the confirmation of the H5 or H7 subtype **WITH** subsequent determination of pathogenicity as described in Section 2.2 of the OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals (HPAI or H5/H7 LPAI) by NVSL.