USDA/APHIS Further Guidance on Biosecurity and Disease Prevention and Control for Nonconfinement Poultry Production Operations

For many years, USDA has engaged in collaborative efforts with States and industry to undertake comprehensive measures to prepare for and prevent an outbreak of highly pathogenic avian influenza (HPAI) in the United States. Recently, a strain of the HPAI subtype H5N1 that has infected domestic poultry and wild birds in Asia and Europe, and has caused more than 60 human deaths, has heightened concerns for introduction of this pathogenic strain to domestic poultry in the United States by certain human activities or by migratory birds traversing intercontinental migratory flyways. As a result, there has been a concerted effort by the commercial poultry industry and State and Federal animal health regulatory agencies to implement increased biosecurity measures and to conduct extensive surveillance for prevention and control of not only HPAI but also H5/H7 low pathogenic avian influenza (AI) that may occur in commercial poultry, live bird markets, and poultry raised in nonconfinement operations. Such preventive measures can help protect animal and human health and minimize AI-related trade sanctions that may be imposed by trade partners. This approach is also consistent with the new OIE Code Chapter on Notifiable Avian Influenza[1].

Poultry raised in nonconfinement systems which include, but are not limited to, free-range and organic poultry, may present an increased risk of exposure to avian influenza because the animals are more likely to come in contact with wild birds that are natural reservoirs of the AI virus. This disease risk has been identified by the Centers for Disease Control (CDC) in an article describing the epidemiologic association between free-grazing ducks, contact with wild birds in rice paddies/wetlands, and spread of HPAI subtype H5N1 in Thailand.[2] This risk presents a challenge for reconciling the need for implementing prevention and disease control protocols to protect animal and human health, with current animal husbandry practices used by producers raising poultry with access to outdoors in order to comply with various marketing label claims such as free-range or organic.[3] The U.S. Animal Health Association Committee on Transmissible Diseases of Poultry and other Avian Species recently issued a resolution stating their concerns for disease control as a priority for all types of poultry, regardless of how raised.[4]

Similar challenges are facing regulatory authorities and the poultry industry in Europe. In October 2005, member states of the European Union (EU) unanimously endorsed a proposal by the European Commission's Standing Committee on the Food Chain and Animal Health to reduce the risk of introducing AI into EU poultry farms.[5] The proposal includes measures that focus on strengthening biosecurity procedures on farms and introducing early detection systems in high risk areas, such as wetlands or farms along migratory flyways. In particular, biosecurity measures are to be directed at reducing the risk of transmission of AI from wild birds to domestic birds. Common EU-wide risks identified include: proximity of farms to migratory flyways, distance of farms from wetlands where migratory waterfowl may gather, and the practice of keeping poultry in open-air farms. In high-risk areas, protective measures were identified, which included confinement of poultry. Each Member State is responsible for identifying high risk areas and for ensuring appropriate measures to separate wild birds from domestic birds are implemented as soon as possible, by November 2005.

In the Netherlands, protective measures for commercial poultry raised outdoors were implemented in 2005 following outbreaks of HPAI (subtype H5N1) in European poultry.[6] Dutch poultry farmers now are required to prevent all contact between their poultry and other birds and their excrement. Outdoor enclosures for nonconfinement-raised poultry in high risk areas must be covered by a solid roof and the sides must be constructed with wire mesh or netting. Outside the high-risk areas, enclosures still must be covered with wire mesh or netting but a solid roof in not required. Alternatively, all birds must be confined indoors. Poultry must be fed and watered in covered spaces and must not be allowed to drink surface water that could have been contaminated by wild bird excrement.

Recommendation:

Given the significant health and trade consequences that could occur with an outbreak of HPAI (including the H5N1 subtype) or H5/H7 LPAI subtypes, USDA-APHIS recommends that poultry producers who raise birds in outdoor, nonconfinement systems should take precaution to prevent contact with wild birds and wild bird excrement. Protective measures include:

- Identifying high risk areas to include (a) wetlands along migratory flyways or other areas where wild waterfowl or shorebirds congregate, and (b) high density poultry production areas.
- Implementing preventive measures for these high-risk areas:
    a. Keeping birds indoors;
    b. Alternatively, restricting outside open access by maintaining outdoor enclosures covered with solid roofs and wire mesh or netted sides.
- Keeping outdoor enclosures covered with wire mesh or netting in lower risk areas (solid roofing not required).
- Providing feed and water for all nonconfinement-raised poultry in an indoor area. Birds should not be allowed access to surface water that could potentially transmit AI or other avian pathogens through contamination with wild bird excrement.

This guidance should remain in effect permanently because it is recognized that wild birds, especially wild waterfowl and shorebirds, can be carriers for AI, and the H5/H7 AI subtypes have the potential to mutate to highly pathogenic strains if they become host adapted in domestic poultry.

References:

1. OIE Animal Health Code: Notifiable Avian Influenza. http://www.oie.int/eng/normes/mcode/en_chapitre_2.7.12.htm

2. Gilbert, M., P.Chaitaweesub, T.Parakamawongsa, S.Premashthira, T.Tiensin, W.Kalpravidh. H.Wagner, J.Slingenbergh. Free-grazing ducks and highly pathogenic avian influenza, Thailand. (2006) Emerging Infectious Disease. 12(2):227-34.

3. USDA, AMS. National Organic Program. 7 CFR 205 Subpart C: Organic Production and Handling Requirements. http://www.ams.usda.gov/NOP/NOP/standards/ProdHandReg.html

4. U.S. Animal Health Association, Committee on Transmissible Diseases of Poultry and Other Avian Species, Resolution 46: Amendment of the NOP Section 205.239, November 2005. http://www.usaha.org

5. EU Preventive Measures. EU Press release – http://europa.eu.int IP/05/1284, 14 Oct 2005.

6. Dutch Implementation of EU Regulations on Bird Flu. http://www9.minlnv.nl/servlet The Netherlands Department of Agriculture, Nature, and Food Quality, November 2005.