

3. Avian Influenza

Overview

Avian Influenza (AI), also known as bird flu, is a viral infection that can range from low pathogenic (LPAI) to highly pathogenic (HPAI) forms. It is highly contagious and can affect both wild and domestic birds.

Causes

- Infection by strains of the influenza A virus.
- Transmission occurs through direct contact with infected birds or contaminated surfaces.

Symptoms

- Respiratory distress (coughing, sneezing, nasal discharge).
- Swelling around the eyes and head.
- Drop in egg production.
- Sudden death in severe cases.
- Neurological signs (in highly pathogenic forms).

Prevention and Control

- **Biosecurity:** Strict control of movement of birds and people in and out of poultry farms.
- **Surveillance:** Regular monitoring and testing of flocks for early detection.
- **Vaccination:** Vaccines exist for certain strains of AI; however, vaccine use may be regulated by government authorities due to trade implications.
- **Culling:** In cases of outbreak, culling of affected and at-risk birds may be necessary to prevent spread.

Treatment

- **Supportive Care:** There is no specific antiviral treatment approved for use in poultry; care focuses on supportive management and preventing secondary infections.
- **Consultation:** Always work with veterinary authorities to manage an outbreak.

Image Suggestions

- Images of virus structure (electron micrographs).
- Pictures showing affected poultry farms (with proper safety measures).