

AVIAN INFLUENZA

Avian influenza is a highly contagious viral disease of poultry affecting respiratory, digestive and nervous system

CAUSE

Influenza type A virus; family-orthomyxoviridae. There are 16 H subtypes (H1, H2, H3...H16)

And 9N subtypes (N1, N2, N3...N9).The serotypes including H5 and H7 are associated with disease in poultry

TRANSMISSION

- Direct contact between infected and susceptible bird
- Contact with carrier migratory wild birds, water fowls and exotic captive birds
- Aerosol
- Ingestion of feed and water contaminated with infected bird feces
- Mechanical transmission through contaminated vehicle, Personnel and equipments
- Insects and rodents may mechanically transmit the virus from infected to susceptible poultry

CLINICAL SIGNS

LOW PATHOGENIC AVIAN INFLUENZA

- Loss of appetite
- Depression and droopiness
- Decreased egg production
- Coughing, sneezing, rales
- Lacrymation
- Huddling
- Diarrhea
- Mortality<5%

HIGH PATHOGENIC AVIAN INFLUENZA

- Sudden death and mortality may reach up to 100%
- Respiratory rates, coughing
- Decreased egg production to total cessation
- Cyanosis of comb and wattles
- Swelling of head, eyelids, comb, wattles and hocks
- Hemorrhage on feet and shank
- Ophisthotonus , Torticollis
- Tremors in head and neck



POST MORTEM LESIONS

LOW PATHOGENIC AVIAN INFLUENZA

- Edema and congestion of tracheal mucosa
- Serous to caseous tracheal exudates
- Air sacculitis
- Swollen infraorbital sinuses
- Fibrinopurulent bronchopneumonia as a result of secondary bacterial infection
- Regression of ovaries and Haemorrhage in ovarian follicle

HIGH PATHOGENIC AVIAN INFLUENZA

- Straw-colored fluid in the subcutaneous tissues
- Haemorrhage on feet and shank
- Haemorrhages in the trachea, proventriculus, beneath the lining of the gizzard and in intestine
- Hemorrhages in the heart abdominal fat, pancreas, Peyer's patches and in muscle along the breast bone heart, gizzard fat and abdominal fat

SAMPLES TO BE COLLECTED

LIVE BIRDS

- Nasal swab(Min 10nos)
- Cloacal swab(Min 10nos)
- Droppings(Min 10nos)
- Serum(Min 10nos)

DEAD BIRDS

- Trachea, lungs, air sacs, intestine, spleen, kidney, brain , liver and heart in PBS and in 10% formalin from atleast 5 birds

PREVENTION AND CONTROL

- Reduce the contact between wild and domestic birds
- Discourage co- culture of swine, ducks, turkey and chicken
- Strict quarantine of the infected flock
- Restrict the movement of personnel, equipment and vehicle
- Depopulation of the infected birds
- All carcass and litter materials should be buried at below 6' and closed with alternate layer of lime and sand
- Feed materials should be burnt
- Disinfectant spray should be used on infected premises
- Flaming may be carried out to disinfect cages
- Provide foot path and wheel bath at the farm premises