

Category 1 Diseases

Disease	Cause	Ages affected	Species	Mortality	Signs and Symptoms	Control
1. Velogenic viscerotropic Newcastle Disease (VVND)	Virus	Any	Most domestic birds	Mortality may reach 100% but often lower in ducks	Sudden mortality, often with few or minimal signs Nervous: Balance & walking problems, twisted necks Respiratory: gasping, difficulty breathing, swelling of the head Digestive: diarrhea Reproductive: decreased egg numbers	Vaccination, biosecurity
2. Highly Pathogenic Avian Influenza (HPAI)	Virus	Any	Most domestic birds	Mortality may reach 100% but often lower in ducks and pigeons	Sudden mortality, often with few or no signs Respiratory: gasping, swelling of wattles & combs Nervous: tremors of the head and neck Digestive: diarrhea, thirst Reproductive: soft-shelled or shell-less eggs, decreased egg numbers	Biosecurity, depopulation, (vaccination)
3. Duck viral enteritis (duck plague)	Virus	Any, although adults more severely affected	Wild and domestic ducks and geese	5-100% with the highest mortality in older birds	Sudden mortality, often with few or no signs Digestive: watery diarrhea, decreased appetite, thirst Reproductive: decreased egg numbers Nervous: difficulty walking, tremors Respiratory: pasted eyelids, nasal discharge	Biosecurity, (vaccination)
4. Pigeon Paramyxovirus (PPMV)	Virus	Any	Pigeons	Mortality may reach 100%	Adults neglect squab, resulting in their deaths. Nervous: Balance & walking problems, twisted necks, head tremors, inability to fly Digestive: diarrhea, thirst	Vaccination, biosecurity

Category 2 Diseases

Disease	Cause	Ages affected	Species	Mortality	Signs and Symptoms	Control
5. Newcastle Disease (lentogenic or mesogenic)	Virus	Any	Most domestic birds	Low, except in very young birds where mortality may reach 20%	Signs may vary by species. There may be no signs in waterfowl. Respiratory: sneezing, coughing, difficulty breathing Nervous: twisted necks Reproductive: decreased egg numbers	Vaccination, biosecurity
6. Low Pathogenicity Avian Influenza (LPAI)	Virus	Any	Most domestic birds	Usually <5% but may be up to 60% in turkeys.	Signs vary by species and infecting virus. There may be no signs in waterfowl. Respiratory: sneezing, coughing, wheezing Reproductive: decreased egg numbers	Biosecurity, depopulation, (vaccination)
7. Infectious Laryngotracheitis (ILT)	Virus	Any but mostly in adults	Chickens	Usually 10-20% but may be very mild <2% mortality or very severe >50% mortality	Respiratory: nasal discharge, difficulty breathing, coughing, bloody mucus Reproductive: decreased egg numbers	Vaccination, biosecurity
8. Infectious bronchitis virus	Virus	Any but most severe in chicks	Chickens	0-25%	Birds may be depressed with ruffled feathers. Respiratory: gasping, coughing, sneezing, wet eyes Reproductive: thin-shelled, rough and misshapen eggs, decreased egg numbers	Vaccination, medication for secondary bacteria
9. Marek's Disease	Virus	Usually 3-30 weeks of age	Chickens	0-30% in unvaccinated flocks	Unthriftiness, failure to gain weight. Nervous: paralyzed in one or both legs or wings, difficulty standing. Pale eyes.	Vaccination
10. Avian Leukosis	Virus	>30 weeks of age	Chickens	Usually <3% although it may exceed 20% in some cases	Unthriftiness, weight loss, enlarged abdomen Reproductive: decreased egg numbers	Chicks from clean flocks, biosecurity
11. Duck virus hepatitis	Virus	Young, <6 weeks	Ducks	Close to 100% in ducklings <1 wk old. 50% in 1-3 wk old, very low in >4 wk old	Death may be the first sign of disease. Nervous: birds fall on their sides, kicking	Isolation of young ducks, (vaccination)
12. Infectious bursal disease	Virus	Mostly 3-6 weeks	Chickens	Usually 0-25% but in some cases, may be up to 100%	Prostration and death Digestive: vent picking, soiled vent feathers, whitish or watery diarrhea	Vaccination, biosecurity
13. Avian Encephalomyelitis	Virus	Mostly 1-3 weeks	Chickens	May reach 50% in young birds	Nervous: difficulty walking, paralysis, tremors	Vaccination

Disease	Cause	Ages affected	Species	Mortality	Signs and Symptoms	Control
14. Fowl Pox	Virus	Any, except newly-hatched	Chickens, turkeys	<5% in skin form; 10-50% in respiratory form.	Poor weight gain. Skin: scabby, raised pocks on the face Digestive: Loss of appetite Respiratory: nasal discharge, difficulty breathing	Vaccination, biosecurity
15. Fowl cholera	Bac.	Birds > 4 weeks are most susceptible	Chickens, ducks, geese, most birds	10-90% mortality. Mortality is highest in turkeys, ducks.	Death may be the first sign of disease. Respiratory: Gaspings, difficulty breathing Digestive: diarrhea, especially in ducks	Medication, remove reservoirs, vaccination
16. Septicemia, omphalitis	Bac.	Birds less than 2 weeks old	Any	Variable. May reach 100% or it may be small.	Late incubation mortality. Navel is inflamed and the abdomen is distended.	Medication, hatchery sanitation
17. Mycoplasmosis	Bac.	Any	Chickens, pigeons, turkeys	Very low.	Respiratory: Facial swelling, nasal discharge, coughing, foamy eyes Reproductive: Decreased egg numbers, decreased hatchability Skeletal: joint swelling	Vaccination, biosecurity
18. Chlamydiosis	Bac.	Any	Ducks, pigeons, turkeys	Variable, but severe cases may have 5-30% mortality	Depression, weakness. Nervous (young ducks): trembling, imbalanced gait Respiratory: swollen eyelids, nasal discharge, difficulty breathing Digestive (young ducks): yellow-green diarrhea.	Medication, biosecurity
19. Infectious Coryza	Bac.	Any, disease most severe in mature birds	Chickens	Rapid onset and high mortality.	Respiratory: Facial swelling, especially around the eyes, nasal discharge, rales Digestive: Loss of appetite, sometimes diarrhea. Reproductive: decreased egg numbers	Vaccination, remove reservoirs, biosecurity.
20. Trichomoniasis	P. zoa	Young birds	Pigeons	Can be up to 50% without treatment	Young birds lose weight and may die. Digestive: thick, yellow areas inside the mouth, difficulty closing mouth	Sanitation, medication
21. Coccidiosis	P.zoa	Young birds, older birds become immune	Most	Variable depending on severity	Depression, weakness, decreased weight gain, dehydration. Digestive: may have mucoid or bloody diarrhea.	Self immunization, medication
22. Histomoniasis	P.zoa	Turkey: 3-12 wk. Chickens: 4-6 wk	Turkeys, chickens	Mortality; low in chickens <30% higher in turkeys (up to 70%)	Depression, weakness Digestive: loss of appetite, yellow feces in turkeys, bleeding droppings from chickens.	Medication, put birds on wire or cement

Category 3 Diseases

Condition	Cause	Ages affected	Species	Mortality	Signs and Symptoms	Control
23. External parasites	Insects, arachnids	Any	Any	Usually low unless infestations are severe	Birds can become weak and unthrifty if heavily infested. Skin: Mites, ticks, fleas and lice can cause itching, loss of feathers. Reproductive: decreased egg numbers	Cleaning of environment between flocks, pesticides applied to the bird and the environment
24. Internal parasites	Worms	Any but the most severe disease is in young birds	Any	Mortality is variable depending on the age of the birds, type and severity of infestation	Depression, failure to gain weight, anemia. Digestive: Diarrhea	Medication. sanitation
25. Aflatoxicosis	Toxin from fungus	Young birds more severely affected	Any; severe in ducks	Variable	Nervous: difficulty walking, convulsions, feather picking Reproductive: Reduced fertility and hatch rates. Decreased egg numbers.	Remove contaminated food
26. Botulism	Toxin from fungus that grows in rotting material	Any	Any; severe in ducks and geese	It depends on how many birds consume the toxin	Nervous: paralysis, especially of the neck. Birds will be flaccid.	Remove source of toxin, pick up carcasses, control flies, fix leaking water
27. Chemical toxins	Pesticides, disinfectants and other	Any	Any	Depends on the toxin, the amount consumed or inhaled, and the number of birds exposed.	Signs vary depending on the toxin.	Remove source of toxin, may need to clean environment
28. Predators	Wild and domestic predators	Any	Any	Predators usually kill a few birds but do not cause the deaths of large flocks	Missing birds or eggs. Occasionally, injured birds may appear or body parts may be discovered after an attack.	Secure housing can reduce losses to flocks.
29. Vitamin deficiency	Lack of complete nutrition	Any	Any	Usually low in free-ranging birds. May be moderate to high in young, confined birds.	Vitamin E: Death before 4 days of age Nervous: difficulty walking and standing, 15 - 30 days of age Reproductive: Decreased hatchability. Vitamin A: Slow growth, drowsiness, and mortality. Respiratory: Discharge from nose and eyes. Reproductive: decreased egg numbers and hatching, increased blood spots in eggs.	Supplement vitamins in the water or feed. Add antioxidants to feed. Rotate feed.

