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## Ailments of turkeys and other fowl

Howard L. Enos and Douglas R. Kuney<sup>1/</sup>

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### Quick Facts

- Obtaining poultry from a disease-free breeder flock is important to the prevention of egg-transmitted ailments.
- Most ailments have associated with them a set of symptoms that are not necessarily clear-cut.
- For positive diagnosis of a particular ailment in a poultry flock, professional assistance usually is required.
- A sound vaccination program is recommended and is important to every flock owner.
- Careful sanitation and management practices—such as keeping housing and feeding equipment clean and disinfected, keeping poultry areas free of debris and dead animals, and allowing only limited access to the poultry houses—are important to healthy flocks.

Chronic respiratory disease (CRD), infectious synovitis and mycoplasma meleagridis infection are sometimes referred to as avian venereal diseases. Since all these disease conditions are egg transmitted, obtaining birds from a disease-free breeder flock is important to the prevention of these ailments in a flock.

Exotic Newcastle disease (VVND) has been the scourge of the poultry industry, and its occurrence is of national interest. Any suspected outbreaks of the disease should be reported to the state veterinarian immediately.

Most ailments have associated with them a set of symptoms (syndrome) that are not necessarily clear-cut. For positive diagnosis of a particular ailment, professional and diagnostic laboratory assistance usually is required.

Information—such as the date of onset, duration of symptoms, feed consumption, water intake and environmental conditions—is of great diagnostic aid to a veterinarian.

A sound vaccination program is recommended and is important to every poultry flock owner. A professional should be consulted about individual situations.

### Diagnosing Problems

*Omphalitis*, or navel infection, is a bacterial problem which enters through unhealed navels of birds. Mortality peaks at about three to six days of age, and in general no signs of the disease are seen after eight days. Evidence of omphalitis is demonstrated by

an enlarged unhealed scab over the navel with moderate interior inflammation.

*Salmonella*, if transmitted through the egg, is noticeable in chicks as early as one day of age. If the incubator served to contaminate the young, the disease will be detected in about four to six days after placement. If the disease appears in birds older than six days, then the farm is the probable source of the infection.

Chicks with the disease appear cold, seek heat and pass a pasty white diarrhea. The pasted vent is not uncommon for this disease condition. Older birds are likely to develop swollen joints, and internal lesions on the liver and/or spleen appear yellowish or gray.

*Aspergillus* (brooder pneumonia) is caused by a fungus which is inhaled. The infectious mold spores may come from unclean hatchery facilities, shipping boxes or from the litter. Infected birds exhibit labored breathing as the most common respiratory symptom, but without rattling sounds associated with their breathing.

The following described conditions are similar to aspergillosis, but for these situations the birds generally exhibit a nervous reaction in addition to respiratory symptoms:

*Avian encephalomyelitis* (AE)—Infected birds generally are weak for two to three days. They lose their locomotion and there often is trembling of the head and wings. These birds do not eat well and death generally is due to starvation.

*Vitamin E and/or selenium deficiency* shows up in older birds. The symptoms generally are similar to those of AE.

*Vitamin D deficiency* is characterized by poorly coordinated birds. It often is confused with a nervous condition. The locomotion problem is due mostly to weakness. The legs and beak may become soft and easy to bend. Generally, these birds do not show respiratory symptoms except as a secondary problem.

*Chronic respiratory disease* (CRD), *infectious bronchitis* (IB) and *Newcastle disease* (ND) are similar to aspergillus, except that breathing is noisy. Also, with ND, nervous symptoms develop after about three to seven days of the respiratory signs.

With *vescerovogemic* or *exotic Newcastle disease* (VVND), the birds die before the nervous symptoms appear.

*Exudative diathesis* is a disease symptomized by a greenish-blue fluid under the skin of the breast and abdomen. If the quantity of fluid builds substantially,

<sup>1/</sup>Howard L. Enos, CSU extension associate professor, poultry science, and Douglas R. Kuney, CSU graduate student, avian science (revised 4/1/79)

birds develop locomotion problems and may exhibit signs of muscular dystrophy.

Sanitation and Management

- Feeders and waterers should be kept clean. They should not be transferred from flock to flock or house to house.
- All shipping coops, cages, holding pens and other housing facilities should be clean and disinfected thoroughly before moving a flock to the premises.
- All feed should be kept dry and cool. Do not use moldy feed. It may be more economical in the long run to dispose of moldy feed.
- Ponds and other wild bird habitats should be kept free from decaying plant life and animal carcasses.
- Any dead birds or animals should be removed immediately. Try to determine the cause of death.
- Birds of different ages or different species should not be housed together.

- Rodent and unwanted animal populations around a farm should be kept under control.
- Weeds around the poultry house that may interfere with air circulation or serve as a habitat for unwanted species should be eliminated.

Limited Access

The fewer the number of individuals or animals that come in contact with a fowl population, the less chance for a disease outbreak on the farm.

A farmer should maintain a limited access program on the farm. One person working in each poultry house is best. However, this must be considered for practicality along with the overall size of operation.

Pets or other animals should not have access to the pens on the poultry farm; they may be carrying a disease that could infect the birds.

Ailment	Cause	Species/symptoms	Treatment	Prevention
Avian tuberculosis	Bacteria	All avian species—Excessive weight loss although appetite is maintained; diarrhea and possible lameness.	None.	Strict sanitation; range rotation; keep wild birds away from flock; don't mix young with old birds.
Brooder pneumonia "aspergillosis"	Green mold	Turkeys and captive game birds—Labored breathing that is accelerated, gasping; increased thirst.	Usually not worthwhile; amphotericin B or nystatin can be used.	Destroy affected birds, contaminated feed or litter; keep feed and litter dry.
Coccidiosis "cocci"	Protozoan	Turkeys, ducks, pigeons, geese—Birds look sick; e.g., hunched over, ruffled feathers with heads drawn; diarrhea usually occurs which may or may not be bloody; mortality varies with infection.	Sulfonamides are hardly successful; give plenty of water.	Keep nesting areas dry and clean; remove affected birds from flock; give a coccidiostat in the feed or water.
Duck viral enteritis "duck plague"	Virus	Wild and domestic ducks; geese and swans—Dehydration, blue beaks, bloody vent in young birds; loss of appetite, pasted eyelids, dehydration, watery feces and nasal discharge in older birds.	None.	Slaughter affected birds and quarantine premises; eliminate cohabitation of wild fowl with domestic fowl.
Exotic Newcastle "VVND"	Virus	Chickens, turkeys and other fowl—Fast spreading with high mortality; severe respiratory symptoms; e.g., sneezing, coughing, nasal discharge.	None.	Destroy all affected birds, but save a few for laboratory diagnosis; vaccination is a must; start access control to the farm by people and wild birds. All cases of Newcastle must be reported to the state veterinarian.
Fowl cholera "cholera" "pasteurellosis"	Bacteria	Turkeys, wild birds and water fowl—Fairly fast spreading with high mortality; loss of appetite, darkening of the head parts, green discharge, coughing and nasal discharge; the course of illness is short.	Sulfaquinoxaline and other sulfa drugs.	Obtain disease-free stock and quarantine them on clean premises; keep other birds and mammals that may be carriers away from flock.
Groundnut poisoning turkey X-disease "mycotoxicosis" "aflatoxicosis"	Toxin	Turkeys, ducks, pheasants—Lethargy, ruffled feathers, droopy wings; later in coordination; weight loss and death.	None proven; however, removal of old bad feed may help mild cases.	Use fresh feed; stored feed must be kept dry and in a cool environment.
Histomoniasis "blackhead"	Protozoan	Turkeys, peafowl, grouse and quail—Listlessness; loss of appetite; head parts may become blue-black in color.	Phenothiazine.	Replacement of a few inches of top soil; range rotation and the use of antihistomonal drugs; e.g., hepzide.
Infectious synovitis		Turkeys—Lameness; pale head parts, retarded growth, unthriftiness; hock joints may be swollen.	Broad spectrum antibiotics.	Establish disease-free flock; follow a strict security management program; low levels of antibiotics help.
Limber neck "botulism"	Toxin	Wild ducks and captive pheasants, however all birds are susceptible—drowsiness, weakness and finally paralysis of the neck, wings and legs.	Give type C polyvalent antitoxin and fresh supply of water.	Removal of stagnant water and decaying vegetation and carcasses.
Mycoplasma meleagridis infection, "M. M."	Mycoplasma	Turkeys—Lowered hatchability; airsacculitis in young poults; leg weakness, poor weight gain.	Broad spectrum antibiotics.	Establish clean breeder flocks; dip eggs before setting.
Mycoplasmosis; chronic respiratory disease "CRD"		Turkeys—respiratory symptoms; e.g., coughing, sneezing, nasal discharge and swollen head.	Broad spectrum antibiotics.	Depopulation of infected flock; obtain disease-free breeders.
Ulcerative enteritis "quail disease"	Virus	Upland game birds and turkey poults—Similar to those of coccidiosis; listlessness, humped appearance with ruffled feathers; diarrhea which is sometimes bloody; in quail, white watery feces are distinctively characteristic.	Streptomycin in chloromycetin or bacitracin in feed.	Eliminate all potential carrier birds; raise flock free from other species; do not mix old birds with young ones; practice good sanitation techniques.