



UNIVERSITY OF IDAHO

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Common Diseases of Poultry In Idaho

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Chick Brooding Is a Critical Period

The most important phase of a bird's life in relation to care and surroundings is during the brooding period. Young birds are more susceptible to many diseases than are older birds. This is especially true for the leukosis complex disease, of which fowl paralysis and the visceral form are most common. Chicks exposed to this disease during the first 30 days of life are much more likely to become infected than if exposed as adults. Some diseases, such as chronic respiratory disease, epidemic tremors and pullorum disease, can be transmitted through the egg.

Good brooding practices start before the arrival of the chicks. The brooder house should be completely scrubbed and disinfected. All equipment should be clean and disinfected. Products containing either a coal tar or quaternary ammonia base are good disinfecting agents. Time should be allowed to completely air out the house before the chicks arrive.

Brooding in complete isolation from older birds is extremely important. Brooding facilities should be at least 150 feet away from other poultry buildings. It is a good idea to have only one person taking care of the chicks. That person should not be around other birds. If this arrangement is impossible, a shallow pan containing disinfectant should be placed at the brooder entrance. All people entering the pen should step into this disinfectant to prevent spread of diseases carried on their shoes. If it is necessary for one person to take care of both the chicks and old birds, take care of the chicks first. Do not permit visitors to enter the brooding area, as they may carry diseases to the chicks.

It always pays to keep a close watch on birds during the brooding period. If any signs of trouble are seen, an accurate diagnosis and prompt treatment will save money and trouble.

A few simple precautions during the brooding period will help assure healthy and profitable birds.

Clean, Sanitary Housing Important

Disease prevention is always much more desirable than any kind of treatment. Clean, sanitary poultry houses help prevent most diseases. When housing pullets, follow the same cleaning procedure described for cleaning the brooder house.

A satisfactory poultry house is one that provides maximum comfort for the birds and maintains a relatively constant set of environmental conditions. The house should be well constructed, insulated in walls and ceiling, and properly ventilated. Such a house is described in Idaho Extension Bulletin No. 244, "The Idaho Farm-Flock Laying House." This house will provide a relatively constant temperature during the cold periods of the year. The ventilating system provides ample fresh air and fans remove the moist, stale air.

Moist litter greatly increases disease hazards. If the watering device is placed on the litter some spillage is likely to occur, resulting in wet litter. This problem can be avoided by placing water equipment on the roosting rack. Another way to help keep litter dry is to place feed hoppers on the roosting rack.

directions.

Virus. Spread by direct contact, mosquitoes, contaminated equipment, and free flying birds.

Vaccinate young birds (3-15 weeks) with fowl pox vaccine. Use pigeon pox vaccine on birds in egg production. **TREATMENT**—None.

Virus. Spread through the egg or through contact of noninfected with infected chicks or adult stock or materials contaminated by them.

Purchase chicks from resistant stock. Young chicks are highly susceptible. Brood them in isolation. **TREATMENT**—None.

Microscopic parasite. Spread by feces of infested birds and by the eggs of cecal worms.

Strict sanitation. Keep turkeys and chickens separated. Range on clean ground. **TREATMENT**—treat with a medicated feed.

Virus. Spread through the egg.

Segregate birds by ages. Cull affected birds. **TREATMENT**—None.

Bacteria. Spread by contact with infected birds, flies, wild fowl, and by materials contaminated by their body wastes.

Sanitation. Keep birds separated by ages. Keep wild birds out. Depopulation necessary in severe cases. **TREATMENT**—Use proven sulfa drugs. Disease may recur after treatment stopped.

Numerous species of roundworms and tapeworms. Roundworms spread through infested litter and soil. Tapeworms spread by intermediate hosts such as flies, ants, earthworms, grasshoppers, snails, slugs, etc.

Strict sanitation. Rotation of range. Spray for insect control. Treat with reputable medication for specific worms present.

FOWL POX	Wart-like scabs about comb and head. Yellow cankers in mouth and eyes. Drop in egg production.	Yellow cankers in mouth and throat. Sinuses may be involved.
LEUKOSIS COMPLEX	VISCERAL TYPE —Sometimes emaciation and pale or yellow combs. NEURAL TYPE — Leg and/or wing paralysis. OCULAR TYPE —Pupil irregular. Iris gray. BONE TYPE —Enlarged shanks.	VISCERAL TYPE —Enlarged liver. Tumors in internal organs. NEURAL TYPE — Nerves enlarged, yellow in color and without striations. OCULAR TYPE —None. BONE TYPE —Enlarged long bones.
BLACKHEAD (TURKEYS)	Weakness, droopiness. Sulfur colored droppings. Dark-colored head.	Depressed circular, yellowish lesions in liver. Ceca thick and ulcerated, containing a yellow cheesy mass and sometimes blood.
EPIDEMIC TREMORS	Tremors of head and neck of young chicks. Complete or partial paralysis, unsteady gait and resting on hocks.	None.
FOWL CHOLERA	Sudden losses. Purplish combs. Difficult breathing. Watery diarrhea. Sick birds inactive, weak and droopy.	Hemorrhages in membranes of respiratory tract, intestines and heart. Liver light in color and streaked. Cheesy material about heart and lungs.
INTESTINAL WORMS	General unthriftiness, retarded growth, and lowered production.	Roundworms in the intestines. Tapeworms attached to intestinal wall. Cecal worms in ceca. Moderate or severe enteritis. Small nodules or hemorrhages in the intestines.

It is well to stress again the importance of keeping visitors out of the poultry house. Many poultry diseases are carried from place to place by people. A pan of disinfectant should be placed at the entrance of the poultry house to disinfect shoes each time the house is entered.

Properly screen all windows and openings to keep wild birds and rodents out of the poultry house. They are capable of carrying diseases to chickens.

Vaccination Pointers

The vaccination of poultry against certain diseases is not a substitute for sound management and good sanitation practices. However, for certain diseases such as Newcastle disease, infectious bronchitis and fowl pox, vaccination is necessary in areas where any of these diseases are present.

There are certain basic guides to follow in carrying out a successful vaccination program. By following these guides, the vaccination program will be much more effective.

1. Vaccinate your birds before they reach laying age for any of the above diseases which are present in your community.
2. Always follow the vaccine manufacturer's directions.
3. Do not vaccinate birds if they are sick.
4. Handle vaccines carefully to prevent spread of disease.
5. Do not give fowl pox vaccine at the same time as other vaccines.
6. Do not attempt to substitute vaccination for sound management and sanitation practices.

Stress Factors

A good deal is heard these days about stress factors. Stress factors may be described as conditions which have the effect of lowering the vitality of the birds to the point where their bodies cannot successfully fight off disease. The more important factors associated with poor and inadequate housing and management which create stress are crowding, insufficient water, insufficient feed and feeder space, wet litter and inadequate ventilation.

Many stress factors may be present during the brooding period. Chicks are under stress when they are overheated or chilled. Poor housing, poor care, and overcrowding are stress factors. A good example illustrating how stress factors work is the case of chronic respiratory disease. This disease can be egg-transmitted. Usually no trouble will be seen in a group of chicks which have a low-level infection of chronic respiratory disease but, if stress factors are present, the disease will be severe. Losses will occur and the pullets may not produce well when housed.

Vaccination for one disease can work as a stress factor for other diseases. For this reason, vaccinate only birds that are in good health.

One important point to remember regarding stress factors is that for the most part they are directly related to housing, management practices, and the sanitation program of the poultryman. Paying close attention to

all of these details, regardless of how small they may seem, is extremely important in keeping stress factors to a minimum. Helpful suggestions will be found in Idaho Extension Bulletin No. 196 "Brooding and Rearing Pullets for Profitable Layers" and No. 242 "Management Practices for Idaho Laying Flocks."

Disposal of Dead Birds

Disposing of dead birds is an important part of any poultry program. Dead birds always offer a source of spreading infection unless prompt and proper disposal is made.

There are two general methods used in disposing of dead birds. The first method is to burn them, using a commercially-made or homemade incinerator. The other is to use a disposal pit. Either method is satisfactory.

How to Build an Incinerator

1. Secure a 50-gallon oil drum and cut a hole 16 inches square near the bottom for a firebox entrance.
2. Cut a hole in the top of the barrel near the edge for a 4- or 5-inch stovepipe.
3. Cut another hole in the top, across from the first, about 12 inches in diameter to drop dead birds through.
4. Halfway up the barrel, punch a series of holes 2 or 3 inches apart in such a manner that 1/2-inch rods can be inserted into the holes to make the grate.

How to Build a Disposal Pit

1. Dig a circular hole about 7½ feet in diameter and 6 feet deep.
2. Mark off a circle 6 feet in diameter at the bottom of the pit and lay a row of concrete blocks (8x8x16 inches) outside this line.
3. Using concrete blocks, line the entire pit to ground level, offsetting each layer of blocks 1½ inches in toward the center.
4. Set an 8- x 12-inch tile (bell end down, on two 2x8's laid across the top layer of blocks. All lumber should be treated with a preservative to prevent rot.
5. Cover the top of the pit with rough planks that have been treated.
6. Cover all but the tile opening with soil.
7. Provide a tight cover for the tile opening.

Common Diseases and Parasites of Poultry

Post Mortem Findings

Cause and Spread

Prevention and Treatment

Characteristic lesions. Laboratory diagnosis

Virus. Spread by direct contact, air, equipment, feed sacks, caretaker, etc. Spread is rapid.

Good sanitation. Vaccinate, following instructions given with the vaccine. Rear young birds away from old stock. **TREATMENT**—None.

Newcastle

Virus. Spread same as Newcastle.

Good sanitation. Vaccinate. Don't mix birds of different ages. Brood and rear young birds away from old stock. **TREATMENT**—None.

Trachea and sinuses. Cheesy or cloudy heart sac white and thickened. Liver covered by yellowish-gray membrane.

Pleuropneumonia-like organisms. Spread by egg transmission and by direct contact, by contaminated litter, water or feed. Spreads slowly.

Practice good management and sanitation. Avoid stress factors. Brood in isolation and keep age groups separate. **TREATMENT**—High level antibiotics may favorably alter the course of the disease.

Sinuses. Air sacs may be cloudy and cheesy material.

Same as chronic respiratory disease.

Same as chronic respiratory disease. **TREATMENT**—Treat individual birds with streptomycin.

Cheesy material in sinuses and nasal

Bacteria. Spread by carriers, air, contaminated feed sacks, equipment, clothes, infected birds.

Good management and sanitation. Depopulation or strict segregation of survivors. **TREATMENT**—Sulfathiazole.

Caseous areas in liver. Intestines inflamed. "Fish flesh" areas in muscles. Soft or watery excretions.

Unknown

Good sanitation and management. Stimulate feed consumption. Feed a high level of a broad-spectrum antibiotic.

Trouble Shooting Chart for C

Disease	Symptoms	P
NEWCASTLE DISEASE	CHICKS —Difficult breathing, sneezing, gasping. May be accompanied or followed by paralysis, tremors, head drawn back or down, circling or walking backward. ADULTS —Respiratory and occasional nervous symptoms. Rapid and severe drop in egg production.	No character necessary.
INFECTIOUS BRONCHITIS	Same as Newcastle for both chicks and hens except no nervous symptoms.	Same as Ne
CHRONIC RESPIRATORY DISEASE	Nasal discharge and slight swelling below eyes. Coughing, sneezing, and hoarse throat rattle. Loss of weight with numerous culls. Gradual drop in egg production.	Mucus in tra air sacs. He sometimes brane.
TURKEY INFECTIOUS SINUSITIS	Swollen sinuses with mucous nasal discharge and watery eyes. Labored breathing and coughing.	Pus in sinu contain che
INFECTIOUS CORYZA	Nasal discharge. Swelling of face and wattles. Sinuses filled with mucous and cheesy material. Bulging of the eyes. Difficult breathing.	Mucus and passages.
BLUECOMB (PULLET DISEASE)	Rapid drop in egg production and feed consumption in young pullets. Diarrhea. Combs dark. Crops may be compacted with feed. Loss of weight.	Yellow are Shrunken "I broken yoll