

COLDS AND ROUP IN POULTRY

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Colds are frequently observed in pullets soon after they have been removed from range, and they are of common occurrence during the fall and winter months. Young birds appear to be more susceptible than adult fowls, and often only a few individuals in a flock are affected at any one time.

The first symptom of a cold is a clear, watery discharge from one or both nostrils. In a few days the discharge becomes viscid, yellowish or grayish in color and resembles pus. When the disease becomes more advanced the discharge dries on the nostrils and interferes with breathing. Fowls with colds frequently sneeze, appear droopy, and may have a watery discharge from the eyes. The poultryman may know that a bird is affected with a cold when straw and feathers stick to the nostrils and beak.

The discharges of a cold often collect in the nasal sinuses and cause a marked swelling of the face. In chickens this discharge or exudate is soon transformed into a cheesy mass and, in advanced cases, has a foul odor. The large swelling beneath the eye may cause the eyelids to close. Sometimes the discharges from the eyes will glue the eyelids together, and the exudate that then accumulates causes a bulging of the lids. The exudate in the eye becomes a dry, yellowish, necrotic mass having an offensive odor. When the nasal sinuses and eyes are involved the disease is commonly termed "Roup". The accumulations in the eye or sinus may continue until the entire eyeball is destroyed.

CAUSE

The etiology of colds in fowls is not definitely known. The reported studies on the "common cold" in man suggest that colds in human beings are incited by some specific agent which probably belongs to the group of so-called filterable viruses and that the secondary and more severe symptoms associated with the disorder are due to the organisms commonly found in the nose and pharynx.

It has not been shown that the colds in fowls are caused by a specific infection. In many cases they probably are due to lowered resistance as the result of faulty housing, adverse weather conditions, or other diseases. Under such circumstances the organisms that are normally present in the flock may become virulent and produce the disease known as colds.

Overcrowding, improper ventilation, dampness, insanitation, and drafts due to crevices in the walls back of the perches will predispose birds to colds. Wide variations of temperature between night and day, long periods of cold, damp weather, and rapid changes of environment are contributing causes. Intestinal parasites, lice, and mites will likewise lower the resistance of fowls. Colds are particularly prevalent in young birds that are overcrowded in the houses or heavily infested with intestinal parasites. Colds and roup frequently occur in birds affected with fowl-pox, infectious laryngotracheitis, or other diseases. Fowl-pox is caused by a specific virus and is a separate disease.

DIFFERENTIAL DIAGNOSIS

Roup associated with colds should be differentiated from "nutritional roup", which is caused by a diet that is deficient in vitamin A. In the former, the tissues around the eye are extensively involved. The exudate is of a cheesy consistency, usually yellowish in color, and has an offensive odor that is characteristic.

In "nutritional roup", a white exudate, which can be easily removed, collects in the conjunctival sac, or a tight, white film develops over the eye. Caseous, white pustules usually are present on the mucous membrane of the mouth, pharynx, and esophagus, and the accumulation of urates in the kidneys give them the appearance of being covered with a white network. There is no characteristic odor in "nutritional roup". The disease is not prevalent in Ohio, as the rations fed to poultry are seldom deficient in vitamin A, most flocks being liberally supplied with yellow corn, good alfalfa hay, green feed, or cod-liver oil.

TREATMENT

Fowls affected with colds should be isolated from the flock and their nostrils cleansed with a 2 per cent solution of potassium permanganate once or twice a day. A 2-4 per cent solution of mercurochrome or an 0.5 per cent solution of silver nitrate, applied every fourth or fifth day, may also be used for this purpose.

Birds with roup should be destroyed unless they are of exceptional value. In chickens, the involved nasal sinuses may be opened with a knife to remove the cheesy exudate. The cavities should then be packed with cotton saturated with tincture of iodine. It is usually necessary to repack the sinuses within a week and continue the treatment until no more cheesy exudate is found on removing the pack.

In turkeys, the discharges that collect in the nasal sinuses do not change to a cheesy mass, but remain a thick, viscid fluid and therefore the swelling of the face can be reduced by pressure, but usually the sinus will again become distended with exudate in a short time. It has been recommended that 1 c. c. of a 15 per cent solution of argyrol be injected into the sinuses after the swelling has been reduced as much as possible. A fine hypodermic needle must be used and care exercised to avoid injuring the nasal passages. The argyrol is to be injected into the sinuses and not allowed to escape into the surrounding tissues. It will be advisable to have your veterinarian treat valuable birds suffering from roup.

A dose of Epsom salts is often beneficial when many birds in a flock show evidence of colds. Epsom salts may be given at the rate of one pound for 100 adult fowls, preferably in a moist mash. Young birds should not be given as large a dose of salts as adult fowls.



Hen with roup

Sodium hypochlorite, potassium permanganate, or mercuric chloride are frequently added to the drinking water to prevent the spread of the disease within the flock. The use of a tonic to stimulate the appetite of fowls is helpful in the early stages of colds. Medicated drinking water and tonics should be used only for a short time as their continual use will prove harmful to poultry. Supply the birds with an abundance of green feed.

Fowls having colds and roup may die as the result of starvation due to blindness or from the absorption of toxic products from the diseased areas.

CONTROL AND PREVENTION

In an attempt to control colds, it is necessary to determine the reason for the low resistance of the birds and to remove the cause. Be sure that there are not too many fowls in the house during the day or night; that the house is free from drafts, well ventilated, clean, and dry; and that a proper ration is provided for the birds.

To determine whether or not the fowls are suffering from parasitism or other diseases, it would be advisable to have your veterinarian examine some of the diseased birds and in this manner come to a decision as to the most beneficial treatment for the flock. An examination of this character may also be had by sending a number of the fowls, express prepaid, to the State Laboratories, Black Lick, Ohio. Correspondence in reference to the examination of diseased birds should be addressed to the Ohio Department of Agriculture, Reynoldsburg, Ohio.

Roup bacterins and avian mixed infection bacterins have been extensively advertised for the control and prevention of colds and roup in poultry; however, there is little experimental evidence to prove that they are of value. Products of this nature are intended to increase the resistance of fowls to the disease. *Staphylococcus aureus* and *Pasteurella avicida* are the organisms that have shown the most promise when used in the preparation of biologic products for colds and roup. A bacterin, prepared from organisms found in diseased birds of a flock, when injected into the other fowls of that particular flock, apparently is the most effective.