

farm and home

POULTRY
HUSBANDRY
NO. 7

FACT SHEET

Flock Sanitation and Disease Control

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Flock sanitation is the means designed to promote health and prevent disease. The factors which promote health are soundness of body, adequate nutrition, suitable environment, and eradication and control of transmissible diseases.

The first three factors are explained in Poultry Husbandry Fact Sheets 3, 4, 5, and 6.

Transmissible diseases can cause heavy losses. Some of these diseases are laryngotracheitis, infectious bronchitis, Newcastle disease, fowl pox, chronic respiratory disease (CRD), infectious coryza, fowl cholera, pullorum, paratyphoid, fowl typhoid, coccidiosis, and ornithosis.

Disease Transmission

Infectious diseases may be introduced by either natural carriers or mechanical carriers.

A natural carrier is a bird or animal which is no longer visibly sick but which can still spread the disease. Most of the more serious diseases of poultry are spread by carriers among the recovered birds. In most diseases these carriers cannot be detected by simple tests. Therefore, restock with day-old chicks and depopulate before restocking to maintain absolute isolation of adult flocks from growing flocks.

Another practical way is to make sure that all flock replacements come as U.S. Pullorum-Typhoid-Clean eggs or chicks.

A mechanical carrier is any means by which infectious material can be carried from place to place. Man is the worst offender as an accidental carrier of disease. Precautions should be taken by those taking care of both adult and growing flocks to prevent the spread of disease. Visitors, especially those who come into contact with other poultry flocks, should be kept out. Similarly, equipment and machinery which has been in contact with other flocks should not be brought on the premises before thorough cleaning and disinfection.

Sanitation

Sanitation is much more than cleaning and disinfecting. Houses should be located, constructed, and maintained so that they will not harbor or propagate mites, lice, and other parasites. Sanitize and disinfect housing and equipment before bringing in the replacement flock. Disinfectants are quickly used up by organic matter. Make sure that all surfaces are physically clean before using an effective disinfectant. Allow a 30-day break in the use of equipment if disease existed in the old flock. Clean and disinfect as soon after removal as is practical.

Vaccination

Many transmissible diseases can be controlled by vaccination. Follow a vaccination program that fits your needs. Plan this program in advance, as vaccination is a preventive tool best used on healthy flocks. Diseases you should consider vaccinating against are fowl pox, Newcastle disease, and infectious bronchitis.

Vaccinate against infectious laryngotracheitis only if the disease is a problem in your area. The following chart gives a recommended program.

| Disease | Age to Vaccinate | Method |
|-----------------------|--|--|
| Fowl pox | 2-4 months; 8-15 weeks | Wing web or feather follicle |
| Infectious bronchitis | 5 or 6 weeks (live virus vaccine; complete 1 month before beginning of egg production) | Mass method--spray, dust, or in drinking water |
| Newcastle disease | 6-16 weeks (in some areas, vaccinate as early as 4-6 days; re-vaccinate before 16 weeks) | Mass method--spray, dust, or in drinking water OR individual vaccination with killed or modified live virus in the wing web, eye, or nose |

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Antibiotics

Antibiotics and other feed additives are used to promote faster and more economical gains. They have been aimed at controlling various diseases and parasites, and at increasing feed efficiency. However, feed additives were not developed as a substitute for sound management and sanitation.

Higher levels of antibiotics are used for the treatment of CRD and other troublesome diseases which occur in today's flocks. But, even at recommended levels, antibiotics can perform efficiently only when employed in connection with good management and sanitation. There are many factors involved in medicating by way of the feed. Among the most important is the bird itself. The general health of the bird, its resistance to disease, the amount of feed it consumes, and the feed intake per pound of body weight (feed intake per pound decreases with age) may influence the results.

Some other influencing factors outside of the bird itself are the energy level of the ration, secondary invaders, sensitivity of the disease-causing organism to the antibiotic, and the sensitivity of different strains of the same disease-causing organism. These and other factors may explain why a recommended level of the same antibiotic will give good results in one flock and fair results in another. In other words, the least amount of antibiotic necessary to clear up the symptoms of the disease can vary considerably from the recommended level in some flocks.

Avian Leukosis

Sanitation is the only practical means that can be taken in the farm flock to protect against some diseases. The avian leukosis complex (range paralysis, big liver disease, gray eye) is an example of a disease for which there is no treatment, cure, or absolute control. Exacting sanitary and quarantine measures are advisable. These can be carried out by:

1. Selecting chicks from a hatchery with a good breeding program.
2. Isolating birds in the brooder and early pullet stage.
3. Culling closely birds of all age groups that show gray eyes, paralysis, or that "go light."
4. Keeping birds in vigorous condition by providing balanced rations, sanitary quarters, and sufficient floor space, and by controlling parasites.
5. Cleaning and disinfecting houses and equipment for each batch of chicks and pullets.

As a rule, the more the chicks and pullets are isolated from adult stock and contaminated housing quarters and equipment, the lower will be the death losses.

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