

SMALL POULTRY FLOCK MANAGEMENT, BIOSECURITY, AND COMMON DISEASES

By Dr. Sherrill Davison, Associate Professor of Avian Medicine and Pathology,
University of Pennsylvania School of Veterinary Medicine

OVERVIEW

There is an ever-growing interest in raising small poultry flocks throughout the United States. Many of these flocks consist of only a few birds, but some flocks have several hundred. In general, owners with only a small number of birds consider them pets, while others with larger flocks have a business and sell eggs or process the birds for meat. A popular trend is for larger flock owners to have a small farm with a variety of animals, including poultry, and to use the products in their own restaurants or sell the products to other local restaurants.

The population of small poultry flocks throughout the U.S. is unknown. Many pet poultry are layer birds. These flocks can be found not only in rural areas, but also in cities and suburbia. Usually local ordinances regulate whether poultry is allowed.

Poultry, like most animals, need veterinary care. Many new owners of chickens do not know where to find reliable information on raising poultry, so they turn to the Internet instead of consulting with a veterinarian. Some of the information on the Internet is incorrect and may be dangerous to the health and welfare of the birds.

The following paper outlines basic management, biosecurity, and disease issues that poultry owners should be aware of to protect the health and safety of their birds.

MANAGEMENT

Bird Health: It is essential that owners check birds on a daily basis and know their normal behavior. In addition, owners should routinely pick up their birds and check their breast muscles in order to know if they have started to lose weight. If a bird is listless or has decreased eating or drinking, it should be removed from the flock for observation. The owner should observe if the bird is laying eggs, coughing or sneezing, has eye or nasal discharge, loose droppings, or difficulty walking, and should note the amount of food and water consumed. A veterinarian should be contacted if the birds are ill.

Water: Poultry should have a clean source of water, and waterers must be cleaned on a regular basis. Bacterial infections may occur due to contaminated water, leading to respiratory disease or diarrhea.

Feed: Poultry feed is essential for proper nutrition. The diet should be matched to the particular type of bird (layer, turkey or meat chicken) and age of bird. An improper diet can cause poor growth, a decrease in egg production, illness, or death.

Litter: Clean and dry litter is important to reduce the incidence of diseases. If the litter is wet, bacteria, fungus, or increased ammonia may lead to foot or joint infections, respiratory disease, or blindness.

Ventilation: Proper ventilation in the coop is essential to keeping the litter dry and reducing the amount of ammonia and build up of

bacteria or fungus. Winter can be a challenging time for maintaining good ventilation and dry litter while also keeping the birds warm. It may be necessary to take extra care to clean the coop, and change litter more often, in the winter.

Predators: Poultry must be protected from predators such as hawks, raccoons, and foxes. A well-designed coop and enclosure to keep predators out is essential. If birds are allowed to roam free, safeguarding against attacks from predators is important. Predators also may carry infectious disease agents that can infect poultry.

BIOSECURITY

Biosecurity is a group of principles used to reduce the probability that infectious disease will affect poultry and spread. Biosecurity principles include: limiting visitors, cleaning equipment and tools, not borrowing equipment from others, having clean and dedicated footwear and clothes, and cleaning vehicles and cages. Birds should be purchased from a reputable source. New birds should not immediately be placed with an existing flock, but instead should be quarantined for a minimum of three weeks. Wild birds may carry diseases that can infect poultry; one step to reduce contact with wild birds is to eliminate bird feeders.

COMMON DISEASES

Mycoplasma: Mycoplasma causes chronic respiratory disease. Birds can carry the organism in their respiratory tracts, and it can be transmitted to other birds. The most common cause of Mycoplasma in a flock is when new birds are placed in a flock and the original birds develop respiratory disease. Wild birds also may carry the disease and infect poultry.

Marek's disease: Marek's disease, a common finding in groups of chickens, is caused by a virus and will cause paralysis or tumors. An important control measure used to reduce the virus is to obtain birds from a hatchery or company that has vaccinated the chickens for Marek's. In addition to vaccination, cleanliness of the coop is essential to reduce the risk of Marek's disease in the flock.

Swollen abdomen ("belly"): Swollen "belly" is seen in laying chickens that are two to three years of age. The owner usually reports that the bird stopped laying eggs and the "belly" became swollen. Two common problems that cause this condition include a bacterial infection in the oviduct, or tumors causing fluid to build up in the abdomen. Birds with swollen "belly" have a poor prognosis.

AVIAN INFLUENZA

Avian influenza (AI) is a respiratory disease that affects many birds, including poultry. Clinically, some AI viruses may cause a mild (low pathogenicity) form of the disease, while other AI viruses cause a more severe (highly pathogenic) form. The mortality with the highly pathogenic form can be as high as 100%.

There are several ways avian influenza is transmitted to poultry, including through other birds, such as wild waterfowl, people, vehicles, or equipment/tools/supplies. Important biosecurity measures to prevent the spread of the disease include: segregating new birds, limiting visitor access, wearing clean clothes dedicated to the premises, and not borrowing equipment, tools, or supplies from others who have contact with poultry.

CONCLUSION

Raising small poultry flocks has become popular. To help maintain a healthy poultry flock, owners should obtain birds from a reliable source, maintain a clean coop, feed an appropriate diet, and protect the birds from disease and predators through proper biosecurity. Small flock owners should consult a veterinarian if they have questions about the health and management of their flocks.

TO SCHEDULE INTERVIEWS ON THIS TOPIC, PLEASE CONTACT:

Ashley Berke, Director of Communications, berke@vet.upenn.edu, 215-898-1475

Louisa Shepard, Communications Specialist for New Bolton Center, lshepard@vet.upenn.edu, 610-925-6241