

# Poultry Health Status Determination

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The determination of the health of any avian species depends upon careful observations and following a systematic procedure of examination. Many diseases are more easily treated if detected early. The key to early detection is knowing what to look for in determining if a bird is ill.

## Observations

Observations are one of the key aspects of determining health in avian or other species. When entering an area where birds are kept, observe the premises carefully. This is important and the first step in determining bird health. Check for signs of vermin such as wild birds or rodents. These can be important sources of disease entry (such as bacteria and parasites) into a flock.

In addition to vermin, check feed and water sources. This is also important. Look for signs of vermin contamination, height of water sources, amount of feed in feeder, if the sources are clean and if the food and water containers are in working order. Sick birds may only seek out feed or water on a limited basis, and if the sources are not working correctly, the condition of the birds can worsen due to malnutrition.

Also observe any litter used in the area to make sure it is not wet. In addition, check roost areas for

cleanliness and if manure is dry. This can be especially important in the control of flies, since wet litter and manure are potential fly breeding areas.

Observe production parameters such as egg production, weight loss, mortality, number of sick birds, fertility, egg hatchability, etc. A careful observation of these parameters may enable you to “catch” a disease in the early stages before it becomes a serious problem.

The next observation should be the birds themselves. Observing the birds before you catch them is extremely important. It allows you to make a general assessment of their condition. Some points to observe include behaviors (such as eating and drinking), attitude, gait, feathers (are they ruffled?) and personality of the bird in the group (fearful, aggressive, alert). Most diseases cause a change in attitude or behavior, which can be detected by close observation.

After close observations of the birds and checking the area for indications of possible problems, the next step is to catch and restrain a bird or birds for examination.

## Examinations

To accurately determine the health of a bird, examine it carefully. A preliminary examination of the

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general condition of the bird can be done while observing the bird. Perform a more detailed clinical examination after catching and restraining the bird. Remember that the general observation should be done before the birds are caught because catching the birds may stress them and change the way they act. The clinical examination is a detailed examination of the various body areas to determine if a problem exists. The areas to check are the eyes, nostrils, beak/oral cavity, ears, respiratory system, cardiovascular system, skeletal system, wings, feet, legs, weight/muscles, plumage and gastrointestinal tract (tail/vent/feces).

**Eyes** – Examine the eyes for areas of discoloration, scars, accumulations and discharges.

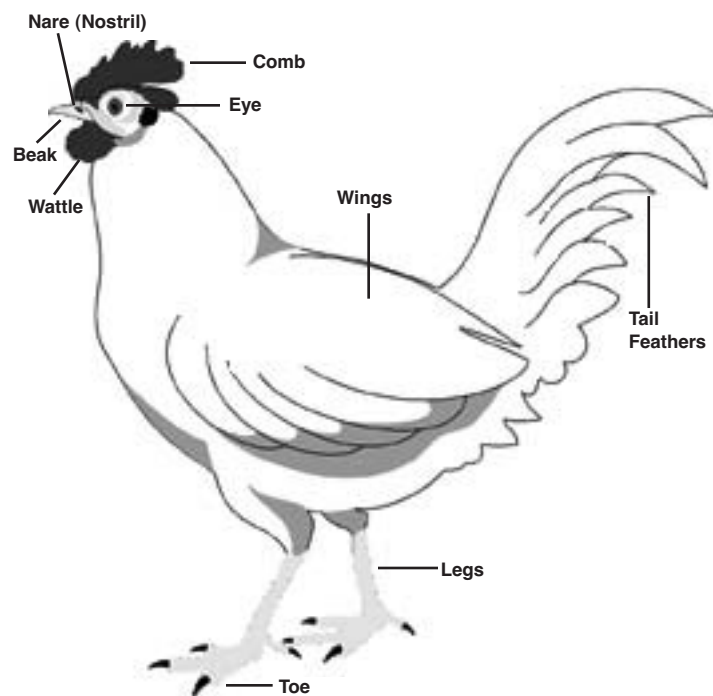
Examine the eyelids at the same time for swelling, reddening and accumulations or dry crusty areas. In addition, the facial skin can be examined at this time for discoloration, swelling, dry crusty areas, etc.

**Nostrils** – Check the nostrils for swelling, discharges, odors, symmetry (diameter of opening), discolorations, accumulations (occasionally the nostril will be plugged) and texture of the nostril and surrounding skin (cere). Listen for any sounds from the nostrils. It may indicate an accumulation or discharge which is not showing up but may cause a noise as air flow is impeded.

**Beak** – The beak is easily examined while examining the nostrils. Check the beak externally for damage, discolorations, accumulations, shape, length, texture and alignment. Hold the beak open with a speculum, such as a wooden dowel, or with your thumb and forefinger so you can examine the oral cavity.

**Oral Cavity** – Check the oral cavity for accumulations, discolorations, odors, discharges and growths. In addition, it is important to check the cleft in the upper palate of the oral cavity. This cleft is the choana, and it is a direct communication with the respiratory tract. Thus, any accumulations, discharges, etc., in this region may be from the respiratory tract.

**Ears** – The ears are located on opposite sides of the head and are covered with fine feathers. Although few diseases cause ear problems, they can be easily checked during the examination for discharges, swelling and evidence of feather destruction due to rubbing or scratching.



**Respiration** – Normal respiration in a healthy bird is barely noticed; however, abnormal respiration is indicated by open mouth breathing and tail bobbing. After catching a bird and allowing it to rest, determine if the bird is having difficulty breathing. If no discharges or plugs are present in the choana or nostril, the bird should stop any labored breathing after it relaxes. If tail bobbing or open mouth breathing continues, it is likely that an infection is present in the lungs, air sacs or both.

**Heart** – The rapidity of the avian heart is such that even with a stethoscope checking for cardiac abnormalities is difficult. Heartbeats are easily felt through the body wall of the bird while it is restrained for examination. Usually, the heart rate increases shortly after catching and then decreases as the bird relaxes.

**Skeletal System** – The skeletal system can be affected by infectious diseases, but in many instances, bone changes are due to nutrient problems or trauma. A twisting or other deformation of the keel bone, vertebrae, etc., can be detected easily while the bird is being handled. The bones of the wings, feet and legs are usually checked when those areas are examined.

**Wings** – An examination of the wings for evidence of disease should include checking for swellings, fractures, discoloration of feathers or skin, bone deformation, plumage (feather changes), wing paralysis and skin changes. A part of the general

condition observation should include checking to see if the bird holds the wings in correct positioning or if they drag or droop.

**Legs** – The legs are examined similarly to the wings except that, in most birds, no feathers are present on the lower leg, only scales. Before catching, observe the legs for use. It is also important to check the nails on the toes for excessive wear or length, which may indicate either disuse or overuse of a leg and/or a toe.

**Plumage** – The plumage is the most obvious appendage of avian skin. Examine the general condition of the feathers. Check for damage, color changes, condition, evidence of soiling, frayed feathers, new feathers (blood feathers), parasite damage, etc. A bird that is sick will usually have unkempt feathers which may be soiled with feces. The feathers of the head/neck, wings, legs, etc., are usually checked during the examination of those regions.

**Vent** – The last region to check is the vent. This region is primarily examined to make an assessment of the health of the gastrointestinal tract. In this

area, check for parasites, soiling of the feathers, evidence of laying eggs, diarrhea, swelling, reddening, blood from the vent, abnormalities, etc. The condition, amount, color and consistency of the feces should also be checked. The feces are usually checked as part of the premises evaluation.

These points of observation and examination are useful as a starting point for determining the health of a single bird or flock regardless of the type of bird; however, more detailed tests such as a necropsy, blood tests, bacterial or viral isolations may be needed to determine the exact health status of a bird or if a disease is present.

Additional information regarding diseases in poultry or other avian species can be obtained from your local veterinarian, county agent, local library or poultry club. If you have questions about avian diseases or need additional information, you can also contact the Extension poultry health veterinarian or the Cooperative Extension Service, University of Arkansas Division of Agriculture.

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