Keep Your Flock Healthy

Chickens are susceptible to many diseases; however, proper care and management of your poultry flock greatly reduces the risk of serious disease losses. Some tips for maintaining healthy stock are discussed below.

**Isolate new birds**

If you buy adult birds to add to your flock, keep them in a separate pen and care for them last so that you don't walk directly from their pen to your present stock. If no deaths or obvious sickness are noticed for 10 days, it is reasonably safe to mix the new birds with your other birds.

It is far safer to buy chicks because they are less likely to carry diseases. If possible, they should be purchased from a hatchery that is designated as a U.S. pullorum-clean hatchery, although many exotic breeds are not available from such hatcheries. Pullorum, caused by a bacterium in the egg, can kill a large percentage of chicks before they reach 2 weeks of age and those that don't die usually perform poorly as adults.

**Maintain dry litter or ground**

Wet conditions often contribute to disease problems because many disease organisms need dampness to grow and become infective. Coccidiosis, an intestinal infection that affects performance and often results in death, is a common disease that needs wet litter or ground to become a problem.

Outside pens should have good drainage and water containers should be placed on raised wire platforms to keep chickens away from wet litter or ground.

**Provide a balanced diet**

Improper or inadequate nutrition increases susceptibility to diseases or other stresses. Always provide your birds with fresh feed, free from mold and contaminants. Chickens require protein, energy, vitamins, and minerals in specific amounts on a daily basis. Grain or scratch alone are not sufficient to meet these needs.

**Provide a comfortable environment**

Temperatures over 90° or under 50° F "stress" your birds and increase susceptibility to diseases. Wind and dampness can increase the chill factor and cause stress at temperatures above 50° and direct sunshine can cause heat stress at temperatures below 90°.

Look over your chicken pen and house with these questions in mind:

Can my birds get in the shade at all times during hot days?

Do they have adequate rain shelter and windbreaks during cold weather?
Is my chicken house (shelter) well ventilated and free from ammonia buildup?

**Practice good housekeeping**

Always clean the water containers frequently (preferably daily) and keep them filled with fresh water. Keep feeders clean and properly adjusted so that droppings or dirt don't get into the feed. Let the chickens eat all the feed once a week and then clean out any moldy feed. Keep the pen free of junk which might injure your birds. Check your pens for places where birds might become entangled in fences or equipment.

**Isolate your birds from human traffic**

People can carry agents of infectious disease on footgear, clothing, equipment, etc. Minimize human traffic in the area where chickens are kept. Discourage visitors, particularly if they also keep poultry or other birds on their premises. Avoid equipment exchanges with other poultrymen unless you know that the equipment has been meticulously cleaned and disinfected. Never visit a friend who has a disease problem with his poultry unless you bathe and change all of your outside clothing before you return to your poultry pens.

**Prevent cannibalism**

For chickens, pecking is natural. If one bird starts to bleed the others may attack it and the result will be a dead or injured bird. Once started, cannibalism is difficult to stop. Prevention is the obvious solution.

- Provide adequate space in houses (at least 3 square feet per adult chicken).
- Provide escape areas such as roosts, pasture, outside runs, or dark areas.
- Debeak or apply specs (blinders) to offenders or the entire flock.
- Remove injured birds as soon as possible.
- Avoid intense light, particularly in confined pens or under brooders.
- Provide adequate eating and drinking space.

**Watch for early signs of disease**

Part of any sound disease prevention program is alertness for early signs of disease. Detection of a disease before it involves the entire flock often gives sufficient time to correct management errors and start treatment to control the problem. Diseases vary widely in the ways they affect a flock, but close attention to the appearance and behavior of your birds will assure early detection of most diseases. The following guidelines are suggested:

*Observe your flock closely and regularly.* Disease is much more readily detected if you are familiar with normal patterns of activity and appearance in your birds and premises. Note activity level and patterns, noise level, posture of birds, appearance of head, plumage and legs, ground or litter condition, and odors characteristic of your operation. A distinct change in one or more of these observable features may signal the onset of disease. You should be especially alert for decreased activity and noise, difficult breathing and abnormal respiratory sounds, weakness, abnormal gait or posture in individual birds, changes in comb or shank color, discharges or crusting around eyes or nostrils, ruffling or roughness of feather coat, unusual color and consistency of droppings, appearance of wet or caked areas of range or litter and readily detectable odors of putrefaction or ammonia.

*Check feed and water consumption daily.* Sick birds may go off feed or water for a variety of reasons (weakness, paralysis, pain associated with eating or swallowing, etc.). On the other hand, some diseases, especially those causing fever, may increase water consumption. At any rate, sudden changes in feed or water consumption are excellent early indicators of disease in the flock.

*Maintain performance records.* If you keep chickens for either egg or meat production, it is a good idea to keep records. A decrease in production is one of the most sensitive indicators of disease in laying hens. Likewise, growth rate and weight gains in meat-type birds are affected early in most
diseases. Any sudden drop in egg production or growth rate should cause you to be suspicious of disease.

**Remove sick or dead birds promptly**

Sick or dead birds are a source of disease for the rest of your flock. Remove them daily. It is usually best to kill sick birds, although a sick pen can be used. This is *not recommended* and is only advisable if the sick bird is extremely valuable. Remember, it is endangering the rest of your stock!

Always dispose of dead birds promptly. Deep burial is necessary. If the dead birds are held for garbage pickup, put them in animal-proof, fly-tight cans. Pets, wild animals, rodents, and insects can spread disease by contact with dead birds.

**Get an early diagnosis**

If your chickens get sick, don't be hasty in medicating them, since some treatments can do more damage than good.

In several acute diseases, the first thing noticed is a sudden increase in deaths. Unless the cause of death is readily apparent (cannibalism or other physical injury), promptly obtain a diagnosis from a veterinarian and follow his recommendation for treatment. A sample of 2 to 7 sick or freshly dead birds should be placed in a disposable container and taken to the veterinarian as soon as possible after the problem is observed.

Another alternative, if you do not have access to a veterinarian, is to take the birds to a California Department of Food and Agriculture poultry laboratory where a professional diagnosis can be obtained. This diagnosis is free to poultry "hobbyists," that is, those with flocks of fewer than one thousand birds. Some laboratories will accept bus shipments but be sure to telephone ahead for shipping instructions. These laboratories are at the following locations:

California Animal Health & Food Safety Laboratory System (CAHFS)

- **Davis Central Reference Laboratory**
  - Thurman Lab
  - West Health Sciences Drive
  - Davis, CA 95616
  - Telephone: (530) 752-8700

- **CAHFS - Turlock Laboratory**
  - 1550 N. Soderquist
  - Turlock, CA 94318
  - Telephone: (209) 667-4261

- **CAHFS - Fresno Laboratory**
  - 2789 South Orange Avenue
  - Fresno, CA 93725
  - Telephone (559) 485-7740

- **CAHFS - San Bernardino Laboratory**
  - 105 West Central Avenue
  - San Bernardino, CA 92412
  - Telephone: (909) 383-4287

*The authors are: Ralph A. Ernst, Extension Poultry Specialist, and A.A. Bickford, formerly Extension Veterinarian, University of California, Davis.*