

Raising Poultry the Organic Way - Disease Control and Feeding

Fact Sheet No. 2.507

Livestock/ Health

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In the past few years, there has been a resurgence of interest in people knowing where their food comes from as well as raising their own food. As part of this interest many urban and small acreage landowners have started keeping small poultry flocks. They are interested in raising their flocks organically and avoiding feed additives.

While most of the time small flock owners do not experience problems, they can periodically have problems with disease or behavioral issues. The ability to purchase organic feed has been an issue in the past, however now more suppliers are providing organic feed options to the local feed store. Flock owners also like to allow their birds to free range on either their property or in the back yard. While this is generally a good idea, there are some issues that must be considered prior to allowing it.

Flock owners can choose to raise their birds organically by simply providing them feed that is organic. For those producers that want to sell birds or eggs and market them as organic may want to be “certified organic”. This will require them to go

through the certification process.

To find an "Organic Certifying Agent", go to <https://www.ams.usda.gov/resources/organic-certifying-agents>

Cannibalism

One challenge small flock owners may experience is cannibalism. This is observed when one chicken begins to pick on another chicken about the time the pin feathers start to emerge. The chicken usually starts pecking in the vent region until blood is drawn. The chicken gets a taste for blood and often others join in. The targeted chicken usually dies unless the pecking is detected very early. This is one reason inspecting your flock daily is imperative. Cannibalism will not stop with one chicken as the perpetrator will choose the next weakest and begin the process again.

Some of the causes leading to this behavior are overcrowding, boredom, improper diet, too hot or too much light. Once cannibalism is identified, it is best to cull the bird that started the pecking. If you do not want to cull birds, you must



Quick Facts

- Birds raised with adequate space, proper diet and good sanitation usually are healthy.
- Organically grown feeds can be obtained by growing corn, millet, sunflower seeds or other grains or by feeding garden waste and clean kitchen refuse.
- Free-ranging chickens make up a good portion of their animal protein needs from insects and worms.
- The important thing to remember when feeding poultry is to meet the protein, vitamin and mineral nutritional needs of the flock.

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catch this behavior at the very start. If caught in time, you may try applying pine tar to the affected area. This gives a bad taste and discourages continued pecking. You can also try a red light to make blood less visible or lowering the light intensity. Birds are less likely to exhibit cannibalistic behavior if they have plenty of room to move and also have plants or other things in their run to amuse themselves. Some hatchery chicks are "debeaked", this is when a small portion of their beak has been removed. These chicks may be less likely to try cannibalism.

Disease Control

Due to the small number of birds and isolation from other flocks, small flock owners usually have limited disease problems. Flock owners who raise their flocks "organically" will need to check with the hatchery where they get their chicks to see if they have been treated with any vaccine or medication. Some hatcheries automatically vaccinate against certain diseases (Coccidia, Marek's, Newcastle, Infectious bronchitis and laryngotracheitis, Fowl pox and cholera). If you do not want your chicks to receive the vaccinations, you will either need to notify the hatchery that you do not want the vaccinations or which ones you do or do not want, find another hatchery or accept the fact that the chicks have been vaccinated. As there are no longer many options available for treating infectious diseases in poultry, vaccination remains one of the best disease defenses besides good sanitation and maintaining your flock in an "all in-all out" fashion, keeping all birds of the same age together without additions and replacing all at the same time. See below for more information on "all in-all out" production.

It is important that flock owners know how a healthy bird looks and acts. Flock owners should check and observe their birds daily, so they can identify any that are not healthy. They must isolate the infected bird to minimize possible disease spread. Flock owners must have an identified veterinarian in their area that can diagnose and treat chickens.

Symptoms of disease may include the following:

- Respiratory
 - Coughing, sneezing, swollen sinuses, abnormal tearing, labored breathing, nasal discharge.
- Gastrointestinal issues
 - Persistent watery diarrhea, bloody or mucoid diarrhea.
- Reproductive problems
 - Decreased hatchability, infertility, reduction in rate of lay, soft or misshaped eggs, early chick mortality.
- Neurological
 - Twisting of the head and neck, circling, falling to one side, inability to stand, complete or partial paralysis.
- Skin
 - Sloughing, pale comb and wattles.
- General behavior changes
 - Decrease in food and water consumption, listlessness, reluctance to move, increase in mortality, ruffled feathers.

To keep your flock healthy, it is important to provide a healthy coop with good ventilation and light, a nutritious diet and plenty of space. An important consideration for all poultry producers, but especially organic producers, is to develop a comprehensive biosecurity plan. This plan should include methods for preventing contact with both wild birds and rodents as they can be a source of disease acquisition.

Another way small flock owners can protect their flocks is to practice "all in - all out" flock management. This means in your flock, birds are a specific age and that you cull them at the same time. You may have multiple ages of birds on your property but they need to be separated into age specific flocks. New birds should not be placed in a flock with other birds. Trying to introduce new birds into an existing flock or merging two flocks into one is very stressful and raises the chances for disease spread, cannibalism and other problems. Any new birds or birds that may have temporarily left the property should be isolated for at least two weeks prior to being placed back in a flock.

Chicken Feed

It has become easier to find "organic" feeds. Check your local feed store for "organically" formulated mixes. Make sure you look for the formulation that suits your bird's age, and purpose whether that is egg or meat production. Small acreage flock owners may decide to raise at least part of their own feed. This can work if you know the protein level of the ingredients. All feed should be stored in metal containers with secure lids that are rodent proof. This will prevent contamination and feed loss due to rodents.

Growing Your Own Feed

Small acreage flock owners may grow some of their own feed. Grains such as corn, wheat, oats and millet may be grown in small patches. The corn will need to be dried, removed from the cob, and crushed into smaller pieces for chickens to consume. Other small grains such as oats and wheat can be threshed or left on the sheaf. You can hang the sheaf off the rafters of the coop so that the chickens can

reach the grain. This will provide them with an activity as well as feed. Feeding grains this way will make it harder to determine if the chickens are getting sufficient protein in their ration. Sunflower seeds may be grown in small patches. The seeds can be left whole but removed from the head.

Vegetable scraps may also be fed to chickens. Feeding scraps can be an excellent way to use food that would otherwise go to waste. Consider leafy greens, vegetable peelings, discards and bread products. Make sure they are not salty or have citrus or are moldy. Be cautious with potato peelings because they may lead to solanese poisoning. Do not feed avocado skins or pits as they are toxic to chickens. The avocado flesh is fine. Also avoid under cooked or dried beans, onions and rhubarb. Scraps also provide a change of pace and provide some entertainment for the chickens. Do not feed more than can be consumed in 5 - 10 minutes to not attract nuisance animals. Treats should make up no more than 10% of their daily diet. It is important to not over feed your chickens with scraps as they need to get enough protein to meet daily requirements. These are accomplished only if they eat balanced ration. For example, a mature hen weighing 3.5 – 4 pounds needs about 100 – 105 grams of protein a day.

Free-range chickens will consume insects to add to their protein intake.

Feed Rations

For most small flock owners it will be easier to purchase pre-mixed commercial feed than to source or raise the ingredients and mix their own feed. If you do decide to raise/source ingredients and mix your own feed, confirm the content of your feed ingredients so you achieve

the proper protein content for the flock age and nutritional needs. Grinding the ingredients for your chicken feed is not required but is advised. Grinding the ingredients produces mash which is better utilized than leaving the ingredients whole. Leaving the ingredients whole allow your birds to pick and choose what they prefer and leave other ingredients uneaten. This can affect their ability to fulfill their nutritional needs. Grinding also increases feed efficiency as your bird does not have to expend as much energy grinding the feed in the crop. Grinding the ingredients for a small flock may be cost and time efficient. A large flock may be costly and time consuming.

As a treat, you may provide your birds with scratch feed to help occupy their time. Scratch feed is not as nutritious as mash, so it must be limited in use to make sure your birds are meeting their nutritional needs first.

Scratch Feed

35% cracked corn

25% barley

25% oats

15% hulled sunflower seeds

Make sure your birds have free access to both grit and a calcium source such as oyster shell or egg shells. For birds that free range, they will pick up their own grit. For a limited area run, you need to provide them with another grit source. If you decide to use egg shells, they should be dried and baked before breaking them up. Otherwise your chickens may develop a taste for eggs.

If you are growing your own feed or most of your own feed, the formula will change based on what you can grow or have access to in your area. For any formulation, it is important to meet the protein, vitamin and mineral need of your chickens and their age and purpose (eggs or meat). There are general protein percentages for various grains but the actual content will vary based on the variety and growing conditions in a given year. You may want to find a local lab that can test your feed periodically to ensure you are meeting the bird's nutritional needs.