



# Poultry Management

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## Nutrition for the Backyard Flock

For a backyard flock to be successful, one necessary thing to provide, aside from good management, is the proper nutrition. This will be based on the type of bird being raised and the reasons they are being raised. The diets and feed formulations for backyard flocks are slightly different from those for commercial flocks because there is not that demand on backyard flocks for the same level of performance. Backyard flocks also sometimes get to supplement their diets from their environment.

A question that the backyard producer may want to ask is whether to make up the feed on site. On the whole, this is not necessary and can become quite time-consuming. It is also essential to have the proper components in the formulation. It is best to consult with a veterinarian and/or an Extension office about the proper diet and feed for the birds to be raised and then to contract to have it supplied locally. Depending on the type of birds being raised, the producers will be advised to use a single feed type for starter, grower, and finisher rations. These are formulated to meet the needs of the birds at particular stages of their lives. The type of feed and the different levels of nutrients they provide will also depend on whether the flock is broilers, layers, show birds, or game birds. This is why it is essential to consult an expert before you decide to make up your own feed or to decide which type to buy. The veterinarian or the Extension faculty will help you decide how much feed the birds should have daily or weekly for efficient growth and production of meat or eggs.

Purchase just about enough feed that can be stored on the premises without the chance of it getting old and moldy. Keep it in a cool (high temperatures lead to rancidity and loss of nutrients), dry place so it does not get moldy. Moisture levels in feed above 12% to 14% encourages mold growth and leads to the production of mycotoxins, which are detrimental to poultry health. Make sure that humidity levels in storage places are not too high.

Feed should be protected from infestation by rodents, other vermin, and insects, some of which are a source of *Salmonella*. Try to determine the amount of feed the birds consume per week and keep such a supply on hand, but no more than this if you do not have good storage facilities. It is better to buy feed in small quantities regularly, than to buy in bulk and have part of it wasted.

The type of feeders used for a backyard flock depends on materials that are readily available locally, or those that can be easily made by the producer. Just make sure that they are of the correct height for the size and ages of the birds (adjust them as needed as the birds grow), so that they have easy access to the feed. Make sure, however, that feed is not easily spilled (this is costly and cuts down on feed efficiency) and that, if possible, birds cannot jump into feeders and contaminate them with fecal material. Feeders should be periodically cleaned out to remove old, caked, and contaminated feed. This will ensure that the feeders do not encourage the growth of pathogens. Place feeders so that all birds have ample opportunity to feed. If birds do not have adequate access to the feeders, timid ones will not get a chance to feed and may end up starving to death.

Components of the particular diets used will depend on the birds being raised and the purpose. All diets contain proteins, fats, carbohydrates, minerals, vitamins, and some coccidiostats to protect against infection by internal parasites. Formulations for backyard flocks are not the same as for commercial flocks because backyard flocks are not raised as intensively, and there is not that urgency about the pounds of meat or number of eggs produced per pound of feed consumed. Broilers and layers need proteins for meat and egg production. They also need calcium for skeleton development, but layers require extra calcium in their diets for depositing shells around their eggs.

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Proteins are obtained primarily from soybean, cotton seed, and meat and bone meals, and are added to make sure all essential amino acids are supplied. Broilers need proteins for rapid body growth, meat production, and feathering, but their protein levels are not the same as that of layers. Layers need protein also for the production of egg albumen and yolk. Fish meal can also be used as a source of protein, but there is a tendency for poultry meat and eggs to have a “fishy” flavor when diets include too high a level of fish meal. This can be avoided in meat birds by withdrawing fish meal from the diet about two weeks before processing.

Carbohydrates and fat, which are the main sources of energy, are needed to maintain the birds’ high body temperatures and high levels of activity. These nutrients are obtained from corn, soybean, and other cereals and grains.

Vitamins and minerals are added to diets to make sure the body functions properly. The minerals calcium and phosphorus, obtained from limestone, oyster shells, and phosphates, are mainly for skeletal development. Layers also use calcium when forming eggshells. Diets have to be formulated to make sure all essential minerals are provided. Otherwise, deficiencies may lead to stunted growth, lack of coordination, rickets, anemia, perosis, reduced egg production, poor hatchability, etc. Starter, grower, finisher, and breeder diets usually need to be supplemented with minerals and vitamins so sufficient amounts are added to the diets.

Grit is needed in poultry diets if only whole grains are fed. It helps to break down fibrous material so that birds can more easily absorb the nutrients. Grit may be provided as hard or soft grit. Oyster shells and limestone as well as gravel and pebbles are used as grit. Birds raised free range or in backyards tend to pick up a variety of grit on their own, and there is no harm in that. Such raised birds occasionally will pick at plants and grasses. Owners should avoid supplementing the birds’ diet with household food or waste because it actually dilutes the nutrients they should be getting from their feed. Grass clippings should not be fed to backyard flocks. Grass in sufficient quantities can lead to impaction of the crop, and eventual death from starvation.

The ultimate diet, type, formulation, whole grain, mash, or pellet to use will depend on the type of bird and the purpose for which they are being raised, the cost involved, and the availability. Careful consultation with a veterinarian or Extension agent is needed in order to ensure that the right choice is made for the flock.

### References

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