

# RAISING CHICKS AND GROWING PULLETS FOR HOME EGG PRODUCTION

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Research and Extension

One of America's most popular animal-related hobbies is raising a small poultry flock. Reasons for maintaining a small flock include obtaining a few eggs, controlling weeds, recycling nutrients from table leftovers or garden vegetable culls, and keeping them as pets. Challenges such as egg shortages, high store prices, and lack of availability make keeping a small home flock for egg production more desirable.

## Before you start

Before purchasing chicks, check with local governing agencies to determine if permits are required to keep poultry at your residence. Some areas do not allow poultry, while others may limit the number of birds, the presence of males, and setback distance from another property. Start with your local county extension program; they may have information for your area. Then, contact your homeowners association, city, and county since each may hold jurisdiction over livestock and poultry production.

## Choose the right breeds

If your flock's purpose is egg production, select breeds that lay the largest number of eggs. When standing in front of chicks at the store, it's hard to resist the fancy birds that may be prettier than they are productive. The major egg layers are the Mediterranean breeds, such as the Leghorns, which produce eggs with white shells. For brown shell eggs, choose any of the brown hybrid crosses. These will often have trade names for marketing and will not be pure-bred poultry because they have been crossed specifically for egg production. Fancy fowl have seldom been bred for production, so egg production is unreliable.

The egg-type breeds and hybrids have a lighter body weight, consume less feed, produce more large eggs with better quality, and are better adapted to survive hot summers. Because feed is the highest cost of your home poultry flock, choose egg breeds over dual-purpose breeds.

Dual-purpose breeds were developed to produce a few eggs and then be used for meat, but they are not optimal for either use.

## Choose pullets rather than straight run

Buy only females for egg production. Hatcheries sell either straight-run chicks or pullets (young females). Straight run means they come as they hatch: about half males and half females. Though the price is often lower for straight runs, the pullets are usually the best economic choice. Males from these breeds grow over a long period, produce less meat, and will eat more feed than the value of meat when processed. Although it is difficult to determine sex at hatch, in about 6 weeks, you should be able to begin to identify males from their facial features to allow culling. By then, they could have consumed a lot of feed and will still need at least 12 weeks to mature.

## Locate or purchase needed supplies

If you visit your local agricultural supplier, you will find what seems to be an unlimited number of items available for a home poultry flock. Only the simplest items are needed if these birds are for eggs and not for pets.

## Heating

Additional heat for early spring will be needed to reduce the chill on new chicks. This need should decrease as temperatures rise. An inexpensive heat lamp will work. When bringing them home, add the heat and adjust as needed. A light left on 24 hours for the first 3 to 4 days will help them find the feed and water. It is important for the rest of the growing period that the birds get only natural daylight or artificial light to match the outdoor day length. Do not leave other lights on; let them have darkness. The chicks will do best on softwood shavings for the first 6 weeks.

## **Litter**

Litter is the loose bedding material spread on brooder floors to absorb moisture and support chick footing. The best choice is clean, dry pine shavings — an affordable, highly absorbent option that controls moisture and odors. Maintain a 2- to 3-inch depth, stirring often to prevent caking and topping off or replacing as needed. Proper litter management minimizes ammonia buildup, reduces foot-pad dermatitis, and promotes overall chick health. Avoid newspaper or surfaces that offer poor traction and can cause leg deformities. Also, avoid straw, which mats down, traps moisture, and fosters mold and respiratory issues. The strong aromatic oils in cedar shavings can be toxic to young birds, making pine shavings the safest, most reliable bedding for optimal chick development.

## **Waterers**

The best waterers are nipple-type drinkers, which have a simple metal pin the birds can touch for water. Good waterers hang just overhead or at least off the ground at shoulder height. Monitor waterers in the winter, these devices will freeze in the coldest months. Consider using a heated pet bowl during periods of cold.

## **Feeders**

The best feeders are large enough to provide feed for days. When mature, poultry consume about ¼ pound of feed per day. Multiply the number of birds you have and determine how long the feed will last. The best feeders hang off the ground at about the birds' shoulder height. Rats and mice will hide under feeders and waterers. Keeping food and water off the floor reduces infestations because there are fewer places to hide.

## **Nests**

Birds will lay eggs in a secluded corner or darker area. A fancy nest is not needed. The best nest allows the eggs to roll away from the hen when she moves. This is essential for preventing broodiness, during which a hen will go out of lay for weeks to try to hatch the eggs. Plans are available to build nest boxes, or you can purchase them from a supplier. One option is to purchase inexpensive plastic devices with slanted bottoms that allow the eggs to roll out and away from the nest.

## **Roosts**

There is no need to purchase roosts. Tree limbs, metal pipes, and wood can be used. Birds like to stay off the ground to avoid predators. Build anything that will allow all birds to roost. There is no need to place roosts far off the ground; almost any height will satisfy the birds. Roosts

should be introduced after a few weeks, set lower if needed, and adjusted to at least knee high at 18 weeks.

## **Plan for illness in your flock**

Sooner or later, some birds in your small flock will face health challenges, ranging from short-term illness to mortality. This is inevitable for every home flock owner. You should have a plan for what to do if a bird shows signs of illness. Regulations have changed, limiting medications available over the counter, and most now require a veterinarian to administer treatments. Your local vet is equipped to treat poultry diseases, even if they have limited experience with poultry. Most ailments in your flock will be common and easily treated. For production birds, more severe cases may be better eliminated by culling due to the cost of treatment versus replacement.

## **Vaccinating your flock**

Vaccination is one of the toughest challenges for home flock owners. Manufacturers often package vaccines in large quantities for commercial production. The cost per unit is high to vaccinate a few birds at home. It is unlikely your local vet maintains a vaccine stock because vials expire soon after opening. They will not likely have enough clients to justify the cost. Many vaccines are high-tech and require specific handling and applications that are difficult to replicate at home. For example, some vaccines use live viruses, which make it easy to vaccinate birds but are difficult to prepare. Worse, many vaccines are now applied while the chicks are still inside the eggshell and are not usable for a home flock.

There are a few vaccines that may be usable at home. First, the vaccine for Marek's disease must be applied on the day of hatch. It is often the disease hatchery chicks receive vaccines for when sold at local ag stores or mail-order hatcheries. Don't mistake the label "vaccinated" to mean the chicks are vaccinated for life for everything. Newcastle-bronchitis disease, infectious bursal disease, and MG (mycoplasma gallisepticum) are other diseases you may find vaccines for through a livestock supplier. Fowl pox vaccine can also be administered at home several weeks after starting the chicks. Fowl pox does not often cause mortality in home flocks, but it could reduce egg production for a short time, so many small farms may choose not to vaccinate for it. Consult your veterinarian for additional information regarding poultry vaccines.

Many small flock owners choose not to vaccinate their flock. If the flock is kept isolated, not traded at swap meets, not exposed to any wild waterfowl, or entered at shows, then most flocks remain relatively disease-free over their lifetime.

## Feeding your pullets

Feed will be the largest cost for growing your birds after chick costs. When pullets grow, they need feed to grow a strong frame and muscle. When egg production nears, they will need additional calcium. You may read sources that list a variety of prestarter feeds, prelay rations, or diets with special additives. These are not necessary for growing a small home flock. Most agricultural supply stores and farm co-ops will offer fewer options. Get a poultry starter for your pullets and plan to use it for the first 6 weeks. This is the most important growth period, and they won't eat much while small, so don't skimp on quality for starter rations. At some point, you can switch your birds to a grower ration. These feeds should be cheaper than a starter. Feed the grower until about 1 week before expected egg production, about 18 to 22 weeks of age depending on breed, then switch to a layer formula that has added calcium sources for eggshells. Never use hen scratch for feeding pullets or laying hens in production.

## Turn the lights on for eggs

Day length governs egg production in poultry. Longer days favor more eggs, and shorter days cause birds to molt (shed old feathers) and shut down for winter. If you get chicks in spring, light management is important. For example, most chicks are available in March or April, so if you start on April 1 and expect to collect eggs 18 weeks later, you should expect eggs around August 1. One problem is that August 1 is already past the summer solstice, and day length is decreasing. For spring pullets, on June 21, be sure your birds get 16 hours of light daily. This can be from natural sunlight or artificial light to extend the day. You can do this with light timers and LED lights. The 16-hour period should be adjusted through winter until June 1 the following season to keep your new pullets laying all winter. On the second June 1, turn off the artificial lights and expect your flock to molt in the early fall in Kansas. You can change the feed to a hen scratch in September for about a month while they molt. After molting at around

6 to 8 weeks, you can turn your lights back to 16 hours. Egg production will come back stronger with more eggs of better quality.

## Should you purchase started pullets instead?

Some small flock owners choose to purchase started pullets instead of chicks because they do not have the facilities to grow and manage growing pullets. Started pullets are generally near 18 weeks old and will be ready to lay in a few days or weeks when you get them home. Started pullets allow flock owners to avoid starting chicks in the cold, getting males by accident, and death loss during grow-out. Pullet growers usually focus on the hybrid egg-type birds, and since they grow in large numbers, they have often received most vaccinations. Started pullets will be more expensive, but it is likely to pay off in quality birds for long production. Consult your extension program about local growers who may offer pullets, as well as some mail-order outlets. The K-State poultry program also offers a pullet sale where ready-to-lay birds grown by students are offered each October.

## Have fun

Growing pullets may seem complicated, but persistence will pay off. Focus on keeping things simple. You don't need to buy unneeded items and worry about being the perfect manager. A coop, a run, and the equipment will take time and money for the first flock, but your setup should last for years for many successive flocks.

This is an outline to get you started. Consult your local extension program, other flock owners, or poultry clubs for more information on housing, feeding, biosecurity, and egg processing. You may find chickens to be a fun project that produces eggs for home use.

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