

Management of the Small Flock of Chickens

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A small, “backyard” flock of chickens can provide your family with a source of high-quality food, possibly some added income and can serve as an excellent learning experience for children. Remember, a flock of chickens can restrict family activities because it must be fed, watered and cared for daily.

Most farms and many suburban residences have facilities suitable for a flock of chickens. Before you start raising chickens, particularly in suburban areas, investigate local ordinances because some areas have restrictions on keeping poultry. Noise, dust, feathers, odors or flies from your flock can quickly cool neighborhood friendships. Good management and a visit with your neighbors to explain your project will go a long way toward alleviating problems. Promising to share fresh eggs and fryers might also help.

Getting Started

Stock is not available at all times, so begin planning at least six months before you want chickens.

Type of Enterprise

First, select the type of enterprise that will produce what your family desires considering your facilities, time and local conditions. The following information will help you decide.

Source of Stock

Start with vigorous, healthy stock that has been developed for high productivity. If egg production is your objective, lightweight, egg-type breeds such as White Leghorn strains, weighing 3½ to 4 pounds at maturity, are recommended for white eggs. Purchase medium-weight, dual-purpose strains of white or barred Plymouth Rocks, New Hampshire, Rhode

Island Red, or first-generation crosses for meat and eggs. These types lay brown eggs. Eggshell color does not affect food value, but it influences market price. Usually, brown shell eggs sell for more than white shell eggs.

Birds grown for meat — broilers, roasters and capons — are usually crosses between a white Cornish male and a white-feathered female, such as a meat-type white Plymouth Rock. Broilers are usually grown 7 to 8 weeks to reach a weight of 3½ to 4½ pounds. Roasters are 8- to 12-week-old chickens that weigh 5 pounds or more; capons are castrated male chickens grown to 6 to 7 months old and weighing 7 pounds or more. Meat-type pullets do not make good egg layers because they lay fewer eggs and require more feed than egg or dual-purpose types. A fast-growing strain cross of Cornish-type broilers is recommended if you want to produce quality poultry meat.

Exhibition-type chickens such as bantams and exotic breeds are recommended for pets or show. These birds have been bred for beauty and form rather than egg or meat production. Contact the Department of Animal Sciences and Industry at K-State for sources of exhibition-type poultry because breeders are limited.

One way to start a flock is to purchase day-old chicks. Young chicks require a lot of care and supplementary heat

Table 1.

Type of Chicken	Primary Product(s)	Time Span	
		Growing	Production
Egg	Eggs	18–22 wk.	12–15 mo. to 2 years
Dual Purpose	Eggs and meat	20–24 wk.	12–15 mo. to 2 years
Meat	Meat	8–24 wk.	—
Exhibition (including Bantams)	Beauty, pets and showmanship	20–24 wk.	8–12 mo. to 2 years

during the early weeks. Straight-run chicks (chicks that have not been separated according to sex) cost less than other ages and types. They normally contain half pullets and half cockerels. Straight-run chicks are suitable heavy meat-type flocks because males and females will grow rapidly.

Sexed chicks are segregated by sex at the hatchery. Egg-type sexed pullet chicks cost more than twice as much as straight-run chicks but are recommended for egg production — egg-type cockerels are unsuitable for meat production because of their small body size. Purchase 2½ straight-run chicks or 1¼ sexed pullet chicks for each pullet you want to keep in the laying flock. In a broiler flock, a 4 percent death loss is considered high.

If you prefer to start with older birds, ready-to-lay egg-type, dual-purpose pullets or yearling hens usually are available. Ready-to-lay pullets may be ordered from a hatchery, feed stores or local farm operation six months in advance. Yearling hens may

be obtained from a commercial egg producer. Yearling hens normally are removed from the flock after 12 to 15 months of lay. The purchase price of older birds will be higher than for day-old chicks. Yearling hens sell for less than ready-to-lay pullets, but their productivity, egg quality and level of health are lower.

Consult your local K-State Research and Extension agent, local hatchery or feed supplier for sources of good stock. Buy your stock from the nearest source that has the type of birds you want. Make sure the birds have been tested and are free of pullorum and typhoid diseases.

Facilities Housing

Well-designed, well-constructed housing make it easier to care for the birds and more enjoyable for the caretaker. You may be able to remodel or use an existing structure. Chicks from day-old to 8 or 10 weeks of age, regardless of type, require a draft-free house with a source

of supplementary heat. Oil, gas or electric brooder stoves are satisfactory. Heat lamps work well for small flocks. Older birds may be kept in any building that keeps them dry, protected from extreme temperatures, provides good ventilation and permits easy care of the flock. Allow the amount of floor area shown in Table 2.

Use of an enclosed run, yard or range area provides space, exercise, sunshine and fresh air for growing birds. Chickens should be confined at all times to reduce labor, predator losses and nuisances. Be sure the yard does not accumulate water during wet periods and that manure is easy to remove. Composted manure is excellent for use on flower beds and gardens.

Equipment

Select equipment that is safe, convenient to use, economical and easy to clean. Used equipment may be available locally at a reduced price from producers who have discontinued their units. Supply a minimum of two, 1-gallon waterers per 100 chicks or place smaller containers so every bird has an opportunity to drink. For laying hens, allow a minimum of 1 to 1½ inches of waterer space per hen. Allow feeding space per 100 birds as shown in Table 3.

Adequate nesting space is essential to reduce broken and dirty eggs. For individual

Table 2.

Age	Floor area per bird (sq. ft.)
0–6 wk.	½
7–10 wk.	1
11–20 wk.	1½–2
21 wk. and older	2+

nests, allow one nest for every four to six hens. When using compartment-type nests, allow 20 square feet of nesting area per 100 hens. Place nests so they are convenient for gathering eggs. Hens prefer dark and well-ventilated nests.

If roosts are used, they should be 2 to 3 feet above the floor along the back of the pen, away from drafts. Space roosts 10 to 12 inches apart. The front and top of the roosts can be covered with heavy wire to keep chickens out of droppings. Do not provide roosts for meat-type birds because this practice encourages development of breast blisters.

Cover the floor with absorbent litter for chickens to scratch in. Litter absorbs moisture and serves as an insulating material in cold weather. For chicks, place a 3- to 4-inch layer of new litter on the brooder house floor; for hens apply a 6- to 8-inch layer. Remove droppings and damp litter to prevent odors, disease and breast blisters in meat-type birds. Build up litter by adding new litter to the top of the old as needed. Select a material that is clean, mold-free and dry, such as shavings, sawdust, chopped straw or ground corn cobs.

Small lights (7.5 to 15 watts) under the hover will attract young chicks or poults to heat. (Discontinue after two weeks.) Proper artificial light during fall and winter will stimulate and maintain egg production. Provide a minimum of 14 hours of light per day for the laying flock. Never decrease daylength unless you want the birds to molt (lose feathers and temporarily cease egg pro-

Table 3.

Type of feeder	Age	Amount
New egg flats	1 – 3 days	5
Starter troughs	4 days – 6 weeks	16 linear feet*
Hanging feeders	7 – 20 weeks	3 linear feet
Hanging feeders	21 weeks and older	4 linear feet

*A trough feeder 2 feet long provides 4 feet of feeding space.

duction). Allow one 60-watt lightbulb per 200 square feet of floor area. Automatic timers to control lights are inexpensive and easy to install.

Feeding Practices

Poultry feed should provide nutrients in proper balance. Incomplete or unbalanced rations reduce performance and may result in nutritional diseases.

Purchase commercial formula feed from a local supplier. Tell your supplier the age and type of birds you plan to feed. Follow the manufacturer's instructions for usage. For medicated feed, follow the manufacturer's directions on the bag label or tag.

For the first four to six weeks, feed a 20 percent protein starting mash to egg, dual-purpose and exhibition-types or 24 percent broiler starter to meat-type chicks. At six to eight weeks, replace the starting mash with an all-mash growing ration or growing mash and scratch grain for birds destined for the laying pen. Buy a finisher ration for broilers. Give roasters and capons the same kind of feed as broilers during the first six weeks. After switching to finishing mash, supply limited amounts of cracked corn or sorghum grain to roasters and capons. Gradually increase grain until equal amounts of mash and grain are being consumed —

at 12 weeks of age by roasters, and at 15 weeks by capons.

About two weeks before pullets start to lay, gradually replace growing mash with a 16 to 18 percent protein all-mash laying ration, or a 20 to 22 percent laying mash and limited grain. Pullets usually start to lay at 18 to 24 weeks; dual-purpose and exhibition-types later than egg-type. Regardless of age, keep feed and water available at all times.

Management Practices

Brooding

The ideal time to brood chicks is during the spring months as the days become warmer. Prepare by completing this checklist.

- House and equipment in good condition ()
- House and equipment cleaned and disinfected ()
- Fresh litter down ()
- Equipment (brooder, feeders, waterers and brooder guard) in place ()
- Brooder stove operating properly (lamps for smaller flocks) ()
- Feed and water in place ()

Set the brooder temperature at 90 to 95°F for day-old chicks and reduce by 5°F weekly until 70°F is reached. The temperature should be maintained at or above 65°F.

Place chicks under hover as soon as they arrive. Check the

chicks frequently. Their behavior will indicate if they are comfortable; crowding indicates more heat is needed, panting means less heat is needed. Gradually move the brooder guard away from the heat source and remove it after one week. Birds may pile and smother if they are crowded or frightened.

Cannibalism

Chickens are natural cannibals. Toe, feather or body picking may occur even in well-managed flocks. Remove injured chicks and paint wounds with a stop-pick preparation. Return chicks to flock when healed. Debeaking with an electric debeaker will prevent picking. Debeaking may be done at any age and does not damage the birds, although day-old debeaking at the hatchery is recommended for meat-type birds. See the K-State publication MF-2336, *Cannibalism in the Small Poultry Flock*, for more information.

Caponizing

A capon is a male chicken that has been surgically castrated. Caponizing causes birds to fatten and produce more tender meat. Cockerels are usually caponized when 3 to 5 weeks old. Separate capons from other chickens after the operation. Some consumers say capons have a unique texture and taste.

Health

It is much easier to prevent disease than to cure it. Here are some keys for prevention.

- Purchase disease-free stock.
- Keep them in a roomy, clean, well-ventilated house. Chickens seldom stay healthy in a damp house.
- Watch for symptoms such as coughing, sneezing, watery eyes, labored breathing and sudden drop in production and feed consumption.
- When disease is suspected, get a reliable diagnosis and start treatment.
- Kill very sick birds and burn or bury deeply to prevent spread of disease.
- Bird- and rat-proof house.
- Clean feeders and waterers regularly. Thoroughly clean and disinfect house and equipment between flocks.
- Plan to keep one age of bird in a flock at one time.
- Use necessary measures to control fly population.
- Check birds periodically for lice, mites and worms.
- Remove and properly compost manure for use as a fertilizer.

Egg Handling

A well-managed laying flock will produce high-quality eggs for your family or for market. Gather eggs from nests twice daily, and clean and cool them. Eggs should be stored near 45°F.

Kansas has regulations governing the sale of eggs; however, producers selling eggs from their own production at their door are exempt. Contact the Meat and Poultry Inspection Division, Kansas Department of Agriculture, 109 W. 9th St., Topeka, 66612, if you have questions about egg marketing regulations. For more information on selling eggs from home, see K-State publication MF-2307, *Packing Eggs on the Farm for Direct Sales*.

For more detailed information on managing chickens, see the following list of publications available at your local K-State Research and Extension office or at K-State's Department of Animal Sciences and Industry:

MF-2310, *Resource Guide for Owners of Small Poultry Flocks*

NCR-186, *Capon Production*

MF-2336, *Cannibalism in the Small Poultry Flock*

MF-2308, *Molting and Other Causes of Feather Loss in Small Poultry Flocks*

MF-2307, *Packing Eggs on the Farm for Direct Sales*

Poultry Handbook

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