



FARM FLOCK MANAGEMENT GUIDE

ABOUT THE ANIMAL:

What You Need To Start Them Right

1. Chick Starter
Leghorns: 280 pounds per 100 chicks
Broilers: 250 pounds per 100 chicks
2. Chick Feeders: minimum of one foot long per 15 chicks
3. Water Fountains: one gallon capacity per 25 chicks or 1/4 inch trough space per chick.
4. Tek-Trol® (product code #8507): Disinfect building and equipment before arrival. Disinfect waterers often. Follow label directions.
5. Heat Lamp or Brooder Stove: 75 birds per heat lamp with a minimum of two lamps.
6. Litter: About four inches of pine shavings or sawdust.
7. Chick Guard: 18 to 24 inch cardboard to keep chicks close to heat, feed and water for first 10 days.

SOURCE OF BIRDS:

The source of chicks is very important to assure disease-free stock. The hatchery should be participating in the National Poultry Improvement Plan to minimize disease problems.

Chickens

- Egg Production Breeds - Several Leghorn white egg strains are available. Leghorns start laying eggs at about 20 weeks, at which time they weigh about 3 pounds. With proper management, they will lay 18 to 22 dozen eggs per bird during the first year of production.
- The brown egg strains will weigh about 4 pounds by 20 weeks of age. They come in a variety of feather color patterns and will generally produce fewer eggs while requiring more feed than the Leghorn breeds. They are generally classified as dual purpose breeds with the cockerels used for meat production and the hens for egg production.

- Meat Production Breeds - The commercial broiler strains of Cornish and White Rock breeding are the most economical strains for meat production. They may be purchased as straight run or on a sexed basis. The males can be caponized (castrated) at 3 to 5 weeks of age to produce a more tasty variety of meat.

Type	Age (Weeks)	Average Live Weight (lb)	Average Dressed Weight (lb)
Cornish Game Hen	5.0	2.5	1.5
Fryer	7.5	4.5	3.3
Roosters	12	8.0	6.0
Capons	17	10	8.0

The most economical time to slaughter is when the birds are at the fryer stage because the amount of feed consumed per pound of gain increases as the bird gets older.

Preparing for Bird Arrival

1. Remove all old litter.
2. Clean and disinfect house and equipment using Tek-Trol® (product code #8507).
3. Fumigate if possible.
4. Let house lie empty and air out for two weeks.
5. Place about four inches of clean, dry litter such as pine shavings or sawdust.
6. Use chick guards to keep birds close to heat, feed and water. Prevent drafts and piling for the first 10 days.
7. Bring house up to brooding temperature one day before delivery.
8. Fill waterers 4 hours before arrival. Allow birds to drink for 3 to 4 hours before giving first feed. This will help prevent dehydration.

Culling

- It is always a good idea to cull and destroy sick or lame birds. These birds are generally inefficient because they do not grow or produce eggs while continuing to eat feed.

- By the end of the first production cycle (10 to 12 months of lay), many laying hens will naturally quit producing eggs and molt. These hens could be removed and slaughtered for meat, if desired. Birds in laying condition will have a large, bright, waxy-appearing comb, moist vent and flexible keel and pubic bones that are wide apart.
- Non-layers will have a dull, small comb and dry vent with rigid keel. The distance between the pubic bones will be only 1 or 2 finger widths, while 3 or 4 fingers will easily fit between these bones of a bird in laying condition.
- Leghorn hens may be molted (rested) after their first production cycle. After 4 to 8 weeks of resting, the hens will return to production at a production rate somewhat less than their first cycle. Your Tradition® dealer or salesman has information on how to molt laying hens effectively.
- Almost every flock of birds is going to be exposed to a disease stress at some time or other. Many diseases can be prevented by keeping visitors and pet traffic at a minimum and controlling exposure to rodents and wild birds. A disease will usually result in a decrease in egg production or feed consumption, after which mortality may suddenly increase. An accurate diagnosis of the disease is necessary before treatment can begin. Indiscriminate use of antibiotics is not a satisfactory substitute for sound disease prevention practices. Some of the more common health problems are discussed in the next few paragraphs.

BIRD HEALTH PROBLEMS:

Coccidiosis: This disease is caused by a parasite called coccidia. The disease is common in both chickens and turkeys, as well as other animals. Tradition® brand poultry feeds have a drug option (amprolium) to aid in the development of immunity to this disease. Chickens should have a coccidiostat such as amprolium in the feed until 12 weeks of age. Birds with this disease appear listless, pale and chilled and may also show bloody droppings. The disease may be treated with sulfaquinoxaline or amprolium in the water.

Mareks Disease: This disease affects the nerves and visceral organs of the chicken, resulting in paralysis and tumors of the internal organs. There is no treatment, however, vaccination at the hatchery is highly recommended.

Leg Problems: Twisted joints, swelled or bowed legs and curled toes will occur to a certain extent in most flocks of

broilers and turkeys. However, management, nutrition, litter and disease can contribute to a higher incidence of the problem. To minimize the problem, follow feeding, floor space and equipment recommendations. Also keep the litter in good condition by removing wet spots and maintaining proper ventilation.

Breast Blisters: This condition is caused by constant contact with litter or equipment. The condition or incidence increases with wet litter, overcrowding and leg problems. The condition is most common with heavy broiler chickens or turkeys.

Cannibalism: This is a habit that develops in the form of feather picking, “pickouts” of the vent or picking at other areas on the bird. This bad habit can start at any age if conditions are right. The most common causes of cannibalism are overcrowding, too high a temperature, poor ventilation and high light intensity. Remove any affected birds, maintain adequate feed intake and correct any of the above management problems. Beak trimming (debeaking) could be considered to help correct the problem.

Lice and Mites: These parasites can steal profits without being noticed. They can cause severe decreases in egg production, egg size and growth rate. Lice can easily be detected around the vent or base of the feathers. Mites will appear as a sprinkling of grey pepper in the vent area. Both lice and mites can be controlled by insecticides. Three or 4 treatments at 10 day intervals may be needed.

Internal Parasites: Worms commonly infest the intestinal tract of birds. The most common are the large round worms, cecal worms and tape worms. Good sanitation between flocks and control of wild birds and insects will help prevent infestation of worms.

GENERAL MANAGEMENT:

Brooding

Brooder stoves or heat lamps can be utilized. Place a maximum of 350 birds per stove or 75 birds per heat lamp. Use a minimum of 2 heat lamps in case one burns out. Adjust the temperature to 90° at the chick level. Reduce temperature 5° per week to a minimum of 60° F. The best indication of a comfortable temperature is when the chicks are spread evenly within the chick guard. Remove wet areas around waterers and feeders daily to maintain good litter condition and to keep leg problems and disease conditions at a minimum. Brooder litter paper should be used when starting chicks. It makes it easier for the chicks to get around and reduces the chicks’ tendency to eat the litter, causing starve-outs.

Light Management

- The effect of light on growth and production is a very important factor. Chicks should be placed on 24 hours of light for the first week. Broilers and capons can then be allowed to follow the natural day length as long as there is at least 14 hours of light provided.
- Day length control is very critical for attaining maximum egg production. A basic rule is: Never decrease day length for laying hens.

General guidelines for total of natural and artificial light could be as follows:

1. First week after chicks are housed - 24 hours of light.
 2. Two to 6 weeks - 16 hours of light.
 3. Six to 12 weeks - 13 hours of light.
 4. Twelve to 18 weeks - 10 hours of light.
 5. At 18 weeks, increase day length one half hour per week until 15 hours of day length is reached. Laying hens must have a minimum of 8 continuous hours of rest (black-out) per 24 hour period.
- Use one 60 watt bulb for laying hens or very young birds. One 25 watt bulb (per 200 square feet of floor space) is adequate for growing pullets, broilers and capons.

Temperature and Ventilation

The optimum temperature range for birds over 4 weeks of age is 65°-75° F. As temperature gets above or below this range, the production, growth rate or efficiency can suffer. To control temperature, ammonia, humidity, dust, disease, and litter condition, fresh air movement is essential. Approximately 5 to 10 times as much ventilation is needed in warm temperature conditions as in cold conditions.

Water: The Most Important Nutrient

Poultry should have free access to clean, fresh water at all times. During brooding, clean and disinfect water fountains daily. When starting day-old birds or after moving or transporting birds, give access to water before placing feed in the feeders. Water consumption will be 3 times as high when temperatures reach 100° F as compared to 50° F weather.

Grit: When birds have access to coarse litter or whole grains, an insoluble grit should be fed. Limit intake of grit to 1 pound per hundred pounds of feed or 2 pounds free choice per one hundred birds per week.

Egg Storage and Cleaning: Eggs should be gathered 2 or 3 times per day. Wash, dry and cool them as quickly as possible to maintain freshness. The wash water should be warmer than the temperature of the eggs. Use detergents designed for washing eggs. Eggs may also be cleaned with sandpaper or steel wool if desired. Store eggs at approximately 50° F and 70 percent relative humidity.

Roosting and Nest Space

Roosts may be used for growing or mature birds, although they are not essential. Allow 6 inches of roost space per bird. To keep eggs clean, nests must be provided for laying hens. Allow 1 nest for every 4 hens. To prevent floor eggs, put nests in darkened area of the house. Keep the nests filled with adequate amounts of litter to prevent egg breakage and dirty eggs.

Space and Equipment Requirements

(Absolute Minimums Per Bird)

	Age In Weeks	Floor Space	Feeder Space (Linear Inches)	Water Space (Linear Inches)
Leghorns	0-2	10.0 sq. in.	1.0	0.25
	2-6	0.7 sq. ft.	2.0	0.50
	after 6	1.25 sq. ft.	3.0	1.00
Broilers	0-1	10.0 sq. in.	1.0	0.25
	1-6	1.0 sq. ft.	2.5	0.50
	after 6	1.5 sq. ft.	4.0	1.00

- **Vaccination:** Disease prevention may be practiced by isolation of different age groups and species of birds. Thoroughly clean up between flocks. Also, purchase healthy birds, vaccinate properly, dispose of dead birds, maintain comfortable environment and control traffic between flocks of birds. These steps will generally control most poultry diseases. There will be times when a vaccination program becomes necessary because of past history of the farm or geographic area. A suggested vaccination schedule for some of the more common poultry diseases is listed below:

<u>Disease</u>	<u>First Vaccination</u>	<u>Second Vaccination</u>	<u>Third Vaccination</u>
Marek's Disease	One day of age at hatchery		
Newcastle-Bronchitis	2 weeks	6 weeks	16 weeks
Fowl Pox	12 weeks		
Epidemic Tremor	14 weeks		