

LPM-00840

Selecting, Brooding & Rearing Small Numbers of Chicks

The Right Breed

Birds for Egg Production

In most areas of the country, Single Comb White Leghorns and hybrid crosses are the most popular white egg layers. However, these breeds do not perform well in Alaska's cooler climate. Rhode Island Reds, New Hampshires and Barred Plymouth Rocks are popular brown egg breeds and all do well in cold climates. There are no differences in egg quality. Exhibition breeds, while beautiful, are generally poor producers.

Birds for Meat

Fryer chicks are from White Plymouth Rock females mated to Cornish males. They grow rapidly but lay poorly. Breeds such as the Jersey Black Giant or Light Brahma are large and meaty but grow slowly.

Sex

Flock owners should order sexed pullet chicks when purchasing any of the egg-laying breeds. Fryer chicks are generally purchased as straight run (both sexes). Dual-purpose Rhode Island Red, New Hampshire and White Plymouth Rock cockerels will grow rapidly, but they will be less plump and less efficient feed converters than the Rock Cornish fryer crosses. Leghorn cockerels are generally considered too thin and rangy for use as broilers. Fryer chicks may be dressed out at a variety of ages, depending upon whether the flock owner desires four week, 1¼-pound squab broilers, eight week, 4-pound fryers or 12 week, 10-pound roasters.

Number of Birds

The number of birds you begin with will depend on several factors. You will, of course, need to determine the level of production you desire from the flock. Then consider that

Minimum Space Requirements For Chickens

Chicks under an electric brooder:	10 sq. in. per bird
Chicks from one to 8 weeks:	1-1.5 sq. ft. per bird
Birds from 8 to 20 weeks:	2-3 sq. ft. per bird
Laying hens:	1.25-3 sq. ft. per bird
Boilers or hens in fenced pen:	3-5 sq. ft. per bird

death losses of 5 percent for pullets and broilers and 12 percent for layers are fairly common. Egg-laying breeds should produce about 240 eggs per year, and meat and exhibition breeds will lay closer to 160 eggs per year.

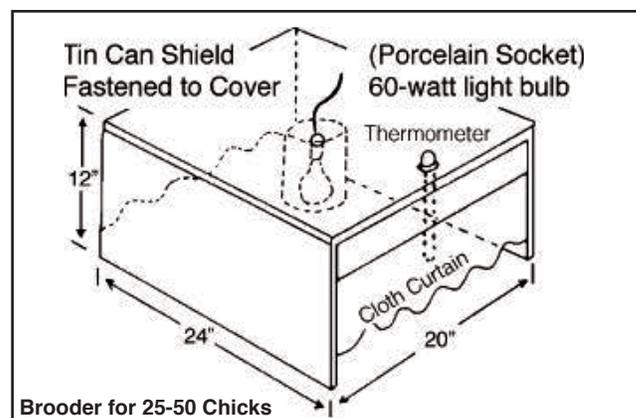
Space may also be a consideration when determining flock size. Recommended minimum areas for various classes of chickens are shown in the following figure. Roosts, feeders and waterers are discussed elsewhere in this publication.

Brooding Methods

Chicks may be brooded (artificially heated and cared for) by a variety of methods. Infrared lamps, small light bulb brooders or broody hens are among the possibilities. Variations of the simple light bulb brooder may be made from the following sketch:

Infrared lamps, which are thermostatically controlled and have fire safety features such as porcelain sockets, chains to hang by and tip-up guard hoops, are available at poultry supply stores. A 250-watt infrared lamp will consume six kw-hours of electricity per day. This type of unit, while more expensive to run than a homemade bulb brooder, is quickly purchased and easily stored. Energy may be saved by using 150-watt infrared lamps in warm weather or after chicks are several weeks old.

Broody hens may be used to hatch a setting of eggs, and they usually make good mothers. They will protect a dozen or 15 chicks from most small predators. A small, well-ventilated A-frame coop (2' x 3') and movable, covered wire yard



(6' x 12') makes a handy arrangement for rearing chicks in the back yard. The hen and chicks eat the same feed. The hen must be free of lice and in good health.

Brooder House Preparation

A small, outside building with a floor, or a simple partition across the back of the garage, will do as a brooder house. It is not desirable to raise chickens in a basement of the home, as chick odor and down will go throughout the house. Clean the area and equipment with a good disinfectant before the chicks arrive. If mites are present, spray with malathion or Sevin as directed on the label. Screen the window and door against predators and ventilate freely. Shield the chicks from direct sun. Before the chicks arrive, prepare a brooding area surrounded by a cardboard fence approximately 16 inches high and 6 feet in diameter. Several inches of coarse, dry shavings, sawdust, peat moss or vermiculite makes good litter. Several thicknesses of newspaper placed under the waterers and feeders for the first week helps keep the contents clean. Remove the top layer daily.

Starting the Chicks

Adjust the hanging heat lamp 18 inches from the floor in the center of the ring. Comfortable chicks will bed down evenly or form a donut-shaped ring. Raise or lower the lamp for temperature control. Start with one or two small water jars, then switch the chicks to a 3- to 5-gallon waterer after the fourth week. Simple automatic float systems are easy to install where running water is available.

Feeders

As soon as you get the chicks situated in the brooder, place a handful of feed in the cut-down chick box or similar container and replace as needed. At two weeks, switch to one hanging tube or other type feeder per 50 birds. Raise feeders to the level of the birds' backs and adjust feed level to

Brooding Tips

- Start chicks at 90° to 92°F measured 2 inches off the floor.
- Lower the temperature 5° to 7°F each week.
- Chicks require 10 square inches per bird under an electric brooder.
- Allow 1 to 1½ square feet of floor space per bird for first eight weeks of age and 2 to 3 square feet per bird from 8 to 20 weeks.
- DO NOT overcrowd or allow wet spots to exist in the pen.

To simplify information, trade names of products have been used. No endorsement of named products by the University of Alaska Fairbanks Cooperative Extension Service is intended, nor is criticism implied of similar products that are not mentioned.

www.uaf.edu/ces or 1-877-520-5211

Stephen Brown, Professor of Agricultural Extension. Originally written by Daniel K. Andrews, Extension Poultry Scientist, Washington State University. Adapted for Alaska by Ken Krieg, Extension Livestock Specialist.



Published by the University of Alaska Fairbanks Cooperative Extension Service in cooperation with the United States Department of Agriculture. The University of Alaska is an AA/EO employer and educational institution and prohibits illegal discrimination against any individual: www.alaska.edu/nondiscrimination.

©2020 University of Alaska Fairbanks.

05-88/CLK/10-20

Growth & Feed Consumption for White Leghorn Pullets*

Age (weeks)	Weight (lbs)	Feed to date (lbs)	Kind of feed
4	.6	1.1	Starter
8	1.4	3.6	(1-8 weeks)
12	2.1	7.1	Growing Mash
16	2.7	11.0	(8-20 weeks)
20	3.1	15.1	Laying Mash
22	3.3	17.2	+Oyster shell

*Heavy breed pullets mature in 28 weeks at 5.5 lb. weight and consume 30 lb. of feed.

avoid waste. Allow enough room so all may eat at one time. Feed fryers only fryer or broiler feed. Egg production pullets should receive regular chick starter, followed by growing mash.

Health

Vaccination schedules for Merricks disease, Newcastle disease, fowl cholera and fowl pox are available from your local veterinarian and should be followed if the birds are to be exhibited at fairs or exposed to other poultry.

Other equipment

Roosts are advisable for pullets after 6 weeks of age. In Alaska, use flat perches of 2x6 boards with rounded edges 13 inches apart, 2 feet to 3 feet above the floor. This will help reduce frostbite of toes. Allow 6 linear inches per mature pullet. Fryer chicks do not use roosts.

Pesticides

Use pesticides with care. Apply them only to plants, animals or sites listed on the label. When mixing and applying pesticides, follow all label precautions to protect yourself and others around you. It is a violation of the law to disregard label directions. If pesticides are spilled on skin or clothing, remove clothing and wash skin thoroughly. Store pesticides in a locked cabinet in their original containers and out of the reach of children, pets and livestock.

The law requires that pesticides be used as the label directs. Uses against pests not named on the label and low application rates are permissible exceptions. If there is any apparent conflict between label directions and the pesticide uses suggested in this publication, consult your local Extension agent.

Revised October 2020