

SUMMER CARE OF PULLETS FOR WINTER EGG PRODUCTION

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From Start to Finish

Successful poultrymen and farmers know that unless the baby chicks are given a good start they will never develop into vigorous cockerels and high-producing pullets. In general, most people give their chicks a good start, and then turn them out on range to rough it, and the result is a poor finish. It is just as important to keep them growing and in good health during the summer months as it is to start them right in the spring.

The primary object of this bulletin is to bring out some of the important points on summer care of pullets after they have been successfully carried thru the first few weeks of their lives.

Production of Winter Eggs Profitable

Pullets must lay winter eggs if they are to be more profitable than yearling hens. Results of a test carried on at the Ohio Experiment Station last winter showed conclusively that unless pullets lay approximately 30 eggs during November, December, and January they are not as profitable as yearling hens. This production is certainly far higher than the average of Ohio pullets. Obviously, unless we get enough more from our pullets during the winter months to pay for the cost of rearing, it is a money-losing proposition to raise them. It is impossible to get them to produce unless they are given the proper care during the summer to prepare them for this period of production. Proper care consists of a number of factors, which will be discussed on the following pages.

Range

The range should be covered with a good growth of bluegrass, clover, or alfalfa. Where it is necessary to cultivate the range it should be divided into two lots, with oats or wheat in one lot and corn in the other. The best way to keep the range in good condition is to move the colony house every year. This is also advisable from a sanitary and disease-prevention point of view. The old range should then be given a heavy application of lime and reseeded. Chicks respond to fresh soil in a way that is impossible of explanation. Farmers who have been raising chicks on the same ground for years should move

them this summer even if it means the leaving of the cement foundation and floor behind. All colony houses used for brooding should be built on skids with a board floor so that they may be moved easily.

Shade

Good shade thruout the summer months is essential. Growing plants, bushes, or low branching trees are best. If this natural shade is not on the range artificial shelters of some kind should be provided for protection from the hot sun. These may be made from branches or old sacks. The colony house may be blocked up far enough off the ground to permit of free circulation of air and furnish a cool place for the chicks during the hot part of the day.

Summer Housing

Chicks that have been brooded in large numbers in small houses soon out-grow the houses. This is especially true where the very small oil-heated hovers are used in small coops. The house should be large, roomy, light, and particularly well-ventilated. Chicks double their weight several times during the growing season but often remain in the same size house, hence the need for the best of housing care. The windows should be removed or opened during the hot weather and a 12-inch opening provided on the rear wall just under the eaves, extending the entire length of the building. Cross ventilation is necessary during extremely hot weather. Chicks suffer as much from overheating as from chilling.

The house should be kept clean thruout the growing season. Clean litter should be kept on the floor, and the dirty litter and droppings hauled away from the poultry range. After each cleaning it is advisable to spray the floor, walls, and all fixtures with a good coal-tar disinfectant.

If red mites should get established in the house the undiluted coal-tar disinfectant, crude oil, or old crank-case oil with 10% disinfectant, should be applied with a brush to the roosts and roost supports.

Early Roosting

Early roosting helps to prevent the chicks from crowding at night, becoming overheated, and often many smothered. This trouble may not result in a high mortality but is bound to check growth. Every means should be employed to prevent it.

Rapid Growth

Rapid growth, together with proper development, are the prime objects sought after. There is one thing that is absolutely necessary for proper development, and that is, proper feed and lots of it. Pullets do not lay until they are mature. Since egg prices are always high during late fall and early winter it is easy to see the necessity for a rapid growth if it is expected that the pullets are to be in condition for fall and winter production. Improper feed always results in underdeveloped, slow maturing, stunted pullets incapable of heavy winter production.

Complete Ration Required

Animal feed and green feed are necessary to supplement the grains and their by-products, to make a complete ration for growing pullets. Skimmilk and buttermilk appear to be the most satisfactory sources of animal feed, when the birds have all they want to drink. In case the home produced milk is not

available, semi-solid buttermilk, dried buttermilk, or milk albumen may be used. If these products are too expensive as compared to meat scraps or tankage, the latter may be used to good advantage, but it is usually advisable to use some meat scraps, or high grade tankage, even where all the milk that the chickens can consume is available.

Green Feed Necessary

Green feed is indispensable for promoting the proper growth and insuring the health of the birds. If the range becomes depleted, as it often does, of the tender succulent material so relished by the birds, it should be supplied from other sources. They should be given all the green feed they will eat. Almost any kind of green feed that is relished may be fed with good results.

Three Vital Essentials

A complete ration has several requisites, but there are three that demand special consideration in the formulation of a ration for growing pullets. These are proteins, minerals, and vitamins. A majority of the rations fed in this State are incomplete or deficient in one or more of these essentials, and consequently should properly be supplemented with animal feed and green feed, which are known as protective feeds.

The feeds from animal sources such as milk, meat scraps, and tankage are protective of the birds' health. They promote growth by virtue of the proteins, minerals, and, in the case of milk, the vitamins, minerals, and the fiber they supply.

A Complete Ration

<i>Grain</i>	<i>Mash No. 1</i>
Cracked corn.....300 lbs.	Cornmeal200 lbs.
Wheat or oats.....100 lbs.	Bran or middlings.....100 lbs.
	Ground oats.....100 lbs.
	*Meat scraps or tankage...100 lbs.
	<i>or No. 2</i>
	Bran200 lbs.
	Middlings100 lbs.
	Cornmeal100 lbs.
	Ground oats.....100 lbs.
	*Meat scraps or tankage...100 lbs.

Milk. Where milk is available the meat scraps or tankage may be reduced. Whether water and milk should both be given to drink is left to the judgment of the feeder. Dried buttermilk may be fed in the mash to the extent of 15 percent.

Green Feed. All the birds will eat.

Oyster shells and Grit. Available at all times.

Methods of Feeding

Mash in suitable hoppers should be available at all times. When on range and running at large the grain may also be fed in hoppers, and kept before the birds all the time. This system of grain feeding is being followed by a large number of poultrymen with splendid results, and is especially recommended when mash No. 1 as given above is fed.

* Use only the best grade of meat scraps or high grade 60 percent digester tankage.

When the birds are confined to small enclosures it is advisable to hand feed the grain. A light feeding in the morning will induce a heavy mash consumption during the day, which is very desirable. In the evening they should be given all the grain they will consume. The old theory of sending a chicken to roost with a full crop is sound.

Water

Pullets require large quantities of fresh water at all times. Where milk is given to drink it is up to the feeder to decide whether or not water should also be supplied. In all probability it makes little difference either way so long as there is sufficient amount of protein present in the ration. A nice stream of cool water running thru the range is ideal and eliminates considerable labor in hauling water. Where water must be hauled a very convenient means of providing it is a barrel mounted horizontally on a frame so that the barrel will be about 12 inches off the ground. For filling, an opening six or eight inches square is cut near the bung on the top and a hinged cover provided. A faucet is put in the end of the barrel at the lower edge. The birds drink from a suitable vessel placed so as to catch the drip from the faucet. The drip can be regulated as desired by setting the faucet. It is of course desirable that the barrel be placed in a cool, shady place.

Separate the Sexes

The males should be removed from the pullet range when from 5 to 8 weeks of age. The pullets are the money crop and should be given every opportunity and advantage. They should not be forced to compete with the males. The cockerels for breeding purposes should be selected at this time, and if not too numerous may remain with the pullets thruout the summer. The early developing, short-legged, deep-bodied, broad-backed cockerels make the best breeders. The surplus should be disposed of as broilers as soon as possible. Early broilers are the money makers because of the higher market. A good fattening ration for the broilers is as follows:

7 lbs. cornmeal
3 lbs. middlings
1 lb. bran

To this mixture add sour milk or buttermilk till the mash will pour. Start feeding lightly and increase gradually. No other feed or drink is necessary. This mixture should be fed two or three times a day, all they will clean up in about 20 minutes. The birds should be confined to a small pen to prevent too much exercise. By this method $\frac{1}{2}$ pound can be added to the weight of the birds in about 8 days. They may be fed two weeks on this ration if they continue to eat well and gain.

Conclusions

1. A shady range with an abundance of green grass, clover, or alfalfa is essential for growing, well-developed chicks.
2. The house should be well-ventilated during the hot weather and kept scrupulously clean.
3. Milk is indispensable for best results.
4. A complete ration with a dry mash available at all times is essential.
5. The cockerels for breeding should be selected early and the remainder marketed as broilers.