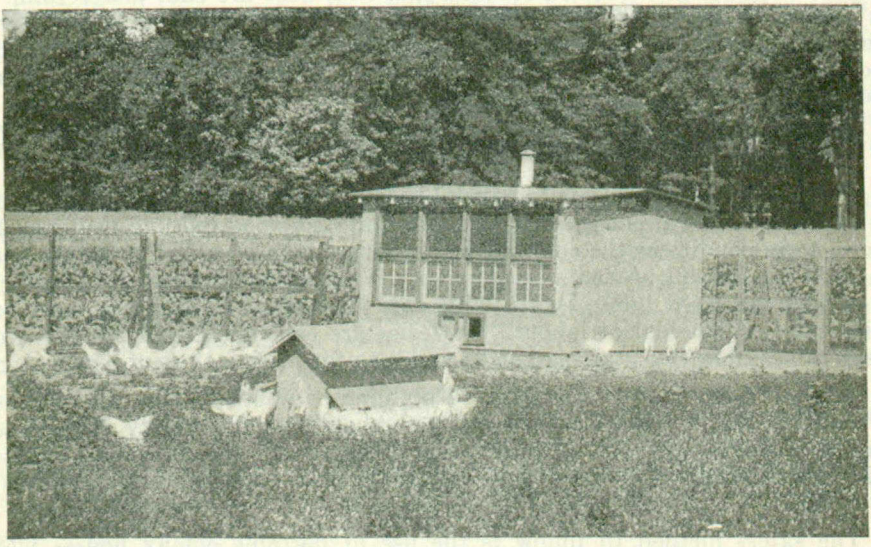
CHICKS

BROODING AND REARING

THE brooding and rearing of chicks is a comparatively simple matter, but to be successful, vigilance and attention to details is required. Brooding may be of two types, natural and artificial. Much of the success of either system depends on having chicks that are properly hatched from healthy, vigorous parents.



COLONY HOUSE USED AS BROODER

Adaptable colony house 10 feet by 12 feet with coal-stove brooder accommodating 200 to 300 chicks comfortably. Used also as laying-house in winter for 25 hens. Roosts and other internal equipment are removable.

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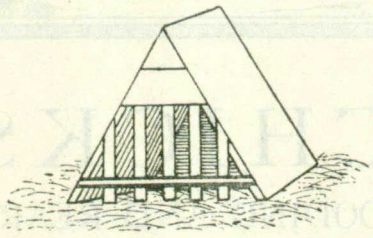
Natural Method of Brooding

After the chicks have hatched, let the hen remain quietly on the nest until the chicks get so lively that they insist on leaving it; then remove the hen and her brood to a coop that has been prepared for her. Early in the season, before the ground is dry, use bottoms in the coops, with chaff or sand to cover the floor. Later the coops may be placed on the ground provided the location is dry, and each day moved the width of themselves. This saves a lot of work and at the same time ensures clean, wholesome conditions. All coops should be thoroughly disinfected before use each season, and also between broods. The A-shaped coop shown in this circular has much to recommend it. It is simple in construction and may be of odds and ends of lumber that might otherwise be wasted.



If A-shaped coops are used it will be necessary to move the chicks to a colony or roosting house as soon as they pass the brooding age.

The number of chicks that a hen can take care of depends largely on the season. In midsummer she may successfully brood as many as twenty-five, but in the earlier part of the year half that number will result in much better success. The two great dangers in brooding with hens are chill and vermin. A hen should be given no more chicks than she can keep comfortably warm. Hens that have been properly handled during the hatching will come to their brooding duties free from vermin, but it is advisable to dust them at regular intervals to ensure a continuance of that condition.

Artificial Methods of Brooding

There are many systems of artificial brooding in use such as the battery, the hot water pipe system and electric, gas, oil, coal and wood burning heaters. For general farm conditions the coal burning brooder stove placed in a colony house has up to the present proved most popular. When a steady supply of electricity and a well insulated house is available this method of brooding is most convenient and economical of labour. Batteries are convenient and are used to a considerable extent for starting chicks and also for raising them to broiler age.

A spare room in any well-built outbuilding or poultry house may be used for brooding but in such case the quarters should be thoroughly cleaned and disinfected before use and all connection broken with the old stock so as to avoid infection that may be present in the mature stock being transmitted to the chicks.

The safest method to follow is the use of portable colony houses which may be moved from time to time as needed to assure the chicks having fresh uncontaminated ground over which to run.

A colony house 10 by 12 feet will comfortably accommodate from 200 to 300 chicks, but care should be taken to see that there is always sufficient hopper space supplied. A safe estimate is 1 inch of feeding space for each chick, and as the chicks grow, the space should be increased accordingly.

Preparing for the Chicks

On the floor, in the centre of the house, place a tin mat or a sufficient number of bricks on their flat to stand the stove on. Then place a guard of 1- by 4-inch lumber, stood on edge round this, leaving about a foot clearance all round the stove. Inside the guard fill in with sand, thus avoiding danger of fire from the stove. On the rest of the floor, litter should be placed to the depth of one or two inches. Planer shavings have been found excellent for this purpose, but chaff or even fine gravel is very often used. Where shavings or chaff are used the attendant should see that the surface of the sand around the stove is kept free from litter.

Four pieces of galvanized iron or stiff wire mesh about 3 feet long by 18 inches high are used to round the corners of the house to prevent crowding.

Wire netting covered frames 2 or 3 inches high and about 4 feet long are placed on the litter on the floor on which are set water fountains and mash hoppers. This raises them sufficiently high to prevent the litter from being scratched into them.

Hoppers of chick-size grit, oyster shell and charcoal are hung at a convenient height on the walls or placed on the wire frames.

For the first few days a guard made of either square mesh, stiff wire cloth or galvinized iron about a foot high is used to circle the stove until the chicks get used to the source of heat. Each day this circle is enlarged until finally the guard is removed entirely. Care should be taken to make the enclosed circle sufficiently large so that the chicks are not kept too close to the source of heat.

A chick should be kept as cool as may be for comfort, but it should always have a source of heat where it may go to rest in a temperature of about 100°. No thermometer, however, is as good an indicator as the chicks themselves. Their actions will tell at once whether they are comfortable or not. If comfortable they will rest contentedly in a circle just outside the canopy of the stove; if not warm enough they will indicate by their discontented chirping and crowding to the source of heat; if too hot they will get as far away from the stove as possible or go around with the mouths open panting for breath.

The length of the brooding period usually runs from four to eight weeks depending largely on the weather. The temperature should be gradually lowered as the comfort of the chicks will permit. Give the chicks an abundance of fresh air.

Roosts on frames covered with wire mesh to prevent the chicks coming in contact with the droppings should be installed when the chicks are three to four weeks old so as to encourage early roosting. These should be placed on the slope, the back part of the frames a foot or more above the floor and the front of the frames resting on the floor so that the chicks will take to them more readily. When the chicks get accustomed to them the frames may be raised in front so that the roosts will be on the level as in the laying houses.

When the chicks are old enough to do without heat the stoves should be removed and the sexes separated. Cockerels to be retained for the selection of breeders should be put in separate runs in range roosting coops; those for broilers put in more or less confined quarters and fed a finishing ration. The pullets should remain in the brooder houses until they require more room, when a sufficient number may be taken out and placed in roosting coops to assure the balance being not overcrowded.

Feeding the Chicks

When the house has been made ready, the fountains filled with water from which the chill has been removed, the hoppers filled with grit, shell, charcoal and dry mash and a little coarse river sand, chick grit or fine oyster shell scattered over the surface of the mash in the hoppers, the chicks are put in the house spread

in a circle on the floor just outside the canopy and they are well started. Feeding is allowed right from the start and everything is practically automatic, requiring very little time to attend to a colony. Tend the stoves regularly, seeing that they are properly regulated. Keep the fountains filled with fresh water and the feed hoppers with dry mash. Weather permitting, get the chicks out on to the ground as soon as they get used to their quarters, say by a week or ten days, and be sure the ground is clean and uncontaminated. When this is done a board about 3 feet long and 12 inches high is placed about a foot back from the exit and another board from the top of this to the wall above the exit. This forms a passage for the chicks to get to the exit and prevents the winds from blowing in the opening and directly under the hover.

If the weather is bad so that the chicks have to be kept to the house, a few clean sods to tear at, will keep them busy; in the absence of these a mangel or a sheaf of alfalfa should be supplied.

Chick Mash

Most of the commercial chick starters are satisfactory but care should be taken to see that they do not contain too high a percentage of fibre.

A starter mash made according to the following formula will give excellent results. Ground yellow corn 25 lb.; ground oat groats 20 lb.; wheat middlings 20 lb.; wheat shorts 20 lb.; dehydrated alfalfa leaf meal 5 lb.; fishmeal (70% protein) 5 lb.; meat meal (60% protein) 2 lb.; buttermilk or skim-milk powder 2 lb.; bone meal 1 lb. To each 100 lb. of the above mixture add ½ lb. of fine common salt and 1 lb. of cod liver oil.

If biologically tested cod liver oil is available it should be used according to the manufacturers directions. When dehydrated alfalfa leaf meal cannot be obtained double the quantity of alfalfa leaf meal should be used, in which case the ground yellow corn may be reduced by 5 lb. In districts where corn is not readily obtainable or unduly high in price wheat may be used to replace it.

Where either skim-milk or buttermilk is available the milk powder is omitted and if either fishmeal or meat meal is difficult to obtain or high in price its replacement by the other will not greatly interfere with the results.

At about eight weeks of age a small quantity of scratch grain mixture is fed, increasing the amount gradually until the chickens are on free range when they are hopper fed and will eat whatever they desire.

If the birds are on good green range, the dehydrated alfalfa leaf meal of the mash may be replaced by wheat bran and the cod liver oil omitted. It is probably preferable in most cases, however, to rely on the increase in the amount of grain fed to adjust the ration to the reduced requirements of the rearing period.

If home-grown grains are available they may be ground and used to advantage at this time. The rate of sexual development is largely dependent on the amount of animal feed supplied. Where pullets are developing too rapidly, increase the percentage of whole grain fed and the tendency will be to grow frame rather than to hasten sexual maturity.

An ideal range for chicks is a clover field beside a corn field, or an orchard, where they can get all the succulent green feed they can eat and still have shade as required. Given these conditions, once the chicks go upon range they can be reared with very little labour, dependence being placed largely on hopper-feeding.

Plans for colony houses, range shelters and range hoppers may be obtained from the Poultry Division, Experimental Farm, Department of Agriculture, Ottawa.

POULTRY DIVISION—EXPERIMENTAL FARMS SERVICE

DOMINION DEPARTMENT OF AGRICULTURE

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