

# Feeding Baby Chicks

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Success in raising baby chicks depends largely upon feeding proper rations. Chicks must get a good start if they are to develop into vigorous growing stock and good layers. Strong chicks are necessary but they also require good environmental conditions such as sanitary quarters, freedom from dampness, and a comfortable temperature. Of equal importance however is a properly selected diet.

Rations for baby chicks should contain nutrients necessary to furnish both heat and energy and to manufacture bone and muscle. It is of vital importance that they also contain what are known as accessories for growth. Due consideration should be given that the ration be made up only of clean, wholesome feeds properly mixed, and having a sufficient amount of crude fibre and roughage.

## CHICK FOOD

The term "chick food" usually means a mixture of cracked grains. Many commercial chick foods are being sold on the market. Their chief advantage is in the fact that they are easily obtained. When one considers the labor involved in preparing a home-made mixture it is probable that their use is advisable. *There is no better chick food than one made of cracked yellow corn.*

Some poultry keepers use a mixture of cracked corn and wheat while others prefer a more complex mixture. One should never feed chick foods which contain weed seed as such feeds are very objectionable, not only because a portion always remains uneaten but also because of the introduction of noxious weeds on the farm. No chick food furnishes the necessary nutrients unless properly supplemented with other feeds.

## FOOD FROM ANIMAL ORIGIN

Chicks to be grown successfully must be fed some food from an animal source. This is necessary to furnish muscle-making material. The common method of supplying chicks with this food is to use sour skimmilk as a drink at the time of the first feeding and to continue it as long as possible. In fact, if the supply is sufficient there is no necessity

of feeding water. If milk is not available a chick mash containing 20 per cent dried buttermilk should be fed from the beginning.

Another method of supplying this animal food is to feed boiled eggs, the infertile eggs tested out from the incubator being used for this purpose. For 100 chicks one should feed eggs at the rate of 3 per day for the first week, increasing this amount 3 per day for each successive week. After the chicks are four weeks old tankage or commercial meat scrap may be incorporated in the ration. Bugs and worms eaten by the chicks serve the same purpose and while their value is recognized they should not be depended upon as the sole source of "animal food." It has been found experimentally that food of animal origin is absolutely necessary. Grains do not furnish the right kind or amount of protein necessary for proper growth and this deficiency must be met by feeding milk, eggs, or some other animal food.

### VITAMINES

"Vitamines" is the term given to so-called accessories which have been found essential for growth. Present information indicates that a ration may be correct in every detail otherwise, yet if vitamines are not supplied the chick will not grow. The chief sources of vitamines are yellow corn, milk, eggs and the leafy parts of plants. This explains the value of skimmilk or buttermilk in the diet for baby chicks as they furnish not only protein but also vitamines, which are of equal importance. For this reason also eggs are an ideal supplement to the ration for growing chicks. After a few weeks green food plays an important part in supplying these important essentials.

The most important dietary factor deals with the assimilation of calcium and phosphorus. This is called the antirachitic vitamine and is said to prevent leg weakness in baby chicks. It is found in egg yolks and may also be supplied by feeding cod liver oil at the rate of 1 per cent of the total ration, or 2 per cent of the mash. Exposing chicks to direct sunlight is equivalent in its effect. Sunshine through glass is ineffective in preventing leg weakness. This emphasizes the necessity of getting the chicks outdoors at earliest opportunity.

### BONE-MAKING MATERIALS

Grains are particularly lacking in phosphoric acid which is an important constituent of bones. A diet of corn alone contains one-tenth the phosphorus necessary. This is an additional reason for feeding milk, eggs, tankage or commercial meat scrap. Failure to supply bone-making material results in weak-legged chicks, a trouble which can be corrected, or better, avoided by following the above suggestions. Many poultrymen add 5 per cent bone meal to the mash to correct the deficiency. Leg weakness is also less prevalent where the chicks are given range, and are exposed to the direct rays of the sun.

### GROUND FOOD OR MASH

Ground food mixtures such as mixtures of ground grains and grain by-products are advisable in chick rations. They simplify the routine and enable the chick to digest more food than it otherwise would. After the chicks are given free range one should keep a dry mash before them all the time. When they are confined it is advisable to feed the mash at regular intervals but the mash should not be kept before the chicks more than one-third of the time. A mash should contain not less than one-fourth nor more than one-third bran. The mash also enables one to incorporate commercial meat foods or dried buttermilk in the ration.

At hatching, one-fourth the chick's weight is unabsorbed egg yolk which is reserve food material. This is gradually absorbed and for this reason the chicks require no food until they are fifty hours old. In fact, earlier feeding is not advisable. At this time a few grains of sand should be spread out in a pan or on a cardboard. This can be followed in about two hours with other food such as chick food.

### GREEN FOOD

Green food is important in promoting growth, as has already been pointed out. The tender leaves of palatable plants such as lettuce, clover, alfalfa, etc., should be fed even when the chicks are a week to ten days old. If chicks have tender grass runs this is unnecessary. Chopped onions, beets, etc., may be substituted when the supply of green food is limited. Growing stock will thrive better if given a range which supplies green food. The laxative effect of green food insures efficient digestion so that digestive disorders will be avoided. Chicks require a certain amount of roughage and the simplest method of supplying this is to feed green foods and to include bran in the mash.

### DAILY ROUTINE

Beginning at the first feed the chicks should be given a light feed of scratch food about three times a day. At first this should be fed in trays, until the chicks become accustomed to the feed. After ten days the scratch food may be scattered in the litter so as to encourage exercise. Twice a day they should be given eggs. These may be beaten raw by mixing with a small amount of milk or they may be boiled and finely grated. For feeding, the eggs may be mixed with bread crumbs, corn bread, rolled oats, or a mixture of equal parts by weight of bran, shorts and cornmeal. The food should be readily cleaned up, the aim being to feed sparingly for the first week. One should keep the chicks slightly hungry and with keen appetites so as to encourage exercise during the day and then fill them up at the night feeding. Water with the chill removed and sour milk should be given, containers in which the chicks cannot get wet being highly desirable. The brooder should be bedded

with fine chaff, clover and alfalfa leaves being the most desirable. Any material used for litter should be free from mold as mold is sure to cause trouble. After the chicks are ten days old one can begin feeding a dry mash by using shallow boxes with sides about two inches high. To prevent wasting, a wire screen of half-inch mesh should be placed in the tray on top of the feed. Later, regular self-feeding hoppers may be used. The routine remains unchanged for the first three weeks. At this time one can discontinue the eggs and begin feeding tankage or meat scrap in the mash. The mash should contain approximately ten per cent tankage. If sour milk is being fed the tankage may be eliminated. A good mash at this age is bran 3, shorts 3, yellow cornmeal 3, dried buttermilk 1, tankage 1 (by weight). To this should be added 5 per cent bone meal and 1 per cent salt. At the age of 8 weeks the feeding of the dried buttermilk may be discontinued. As the chicks increase in size the scratch food naturally consists of larger grains and the number of feedings will be reduced to two. Fine chick grit or sand should be given from the start but should be given sparingly for the first ten days. It is not advisable to feed wet mashes until the chicks are past the danger point. During hot weather growth can be encouraged by feeding a crumbly wet mash once a day, about 4:00 p. m., but should be given only in such amounts that it is cleaned up that night. Wet mashes spoil very quickly and sour, musty feed is sure to cause trouble. One will have less trouble and less work if the practice of feeding dry mashes is employed. Growth in chicks after the first week depends upon liberal rations. With chicks on range there is no danger of over-feeding. The fountains should always be kept clean and filled with clean fresh water.

### FEEDING SCHEDULE

AGE	GRAINS	MASH	DRINK	MISCELLANEOUS
0 to 50 hours				
50 hours				A few grains of sand.
54 hours	Scratch food 3 times daily.	Bread crumbs, rolled oats or mash mixed with eggs. Mash, equal parts by weight of bran, shorts and cornmeal.	Milk or water	Shade is necessary for growing chicks.
7 to 10 days	Same as above.	Same as above.	Continue milk if possible.	Green food as early as possible.
21 days.	Scratch-food twice a day	Add 10 per cent tankage or meat scrap to mash if milk is not fed. Also 5 per cent bone meal.*		Keep fine limestone grit or fine oyster shell before the chicks.
6 weeks	Change to coarser grains	Hopper feed dry mash. Keep before chicks all the time.		A range which teems with insects and green food will insure thrifty chicks.
10 weeks to maturity	Same as above.	Same as above.	Remember the fresh water	

\*Feed in shallow tray. Keep before chicks one-third the time.