Vol. XV, No. 4.

1919-1920

AGRICULTURAL EXTENSION SERVICE, THE OHIO STATE UNIVERSITY

Feeding Hens For Egg Production

H. D. MUNROE Department of Animal Husbandry

For profitable egg production, it is necessary that hens have all they will eat of a well-balanced egg-producing ration. The heavy laying hen is a good feeder; the under-fed hen is always a bill of expense. Hens often become too fat because the ration is deficient in protein and ash. The protein can best be supplied by sour skimmilk, meat scrap and tankage, and the ash by oyster shell. The hen cannot change the composition of the egg to suit the kind of feed with which she is supplied; she will not lay at all unless she has the right materials for making a perfect product. It is better economy, therefore, to buy, if need be, such feeds as are necessary than to use home grown feeds that are unsuitable.

Following are some well-balanced rations for egg production, together with methods for feeding. One or more of these will be found suitable to home grown feeds and local prices in most sections of Ohio.

Ration No. 1:—(Corn and skimmilk or buttermilk available)

Wheat, bran, and middlings to be purchased. Feed corn scantily in the morning and heavily at night. Give plenty of sour milk to drink and feed equal parts of bran and middlings for dry mash.

Ration No. 2:-(Corn and oats, barley, or wheat available)

Wheat bran, and meat scrap to be purchased. Feed scantily of oats, wheat or barley in the morning and heavily of corn at night. For dry mash, mix 200 pounds of ground corn, 200 pounds of wheat shorts or bran, and 100 pounds of meat scrap.

Ration No 3:-Feeds Purchased

Scratch Grain.	Dry Mash.
200 lbs. corn	100 lbs. cornmeal
100 lbs. oats, barley or wheat	100 lbs. wheat bran
	100 lbs. wheat middlings
	100 lbs. ground oats
	100 lbs. meat scrap

The Ohio State University, Cooperating with the United States Department of Agriculture, Agricultural College Extension Service, H. C. Ramsower, Director, Columbus, Ohio. FREE-Cooperative Agricultural Extension Work-Acts of May 8 and June 30, 1914 **Method:**—Keep dry mash in open hoppers that the hens may help themselves at will. Dry mash, with meat scrap as indicated above or with milk to drink, is absolutely necessary.

During winter feed scratch grain in straw litter 5 to 8 inches deep and during summer in litter or on clean ground. Feed scantily in the morning and all they will eat at night.

Amount:—Feed according to the appetite of the birds; no definite rule can be given. One hundred hens will require about 150 pounds of feed per week, varying with the seasons, the kind of fowls, and other factors.

Green Feed:—Free range on alfalfa, clover, or grass is ideal. When this is not possible, feed mangel beets, cabbage, or sprouted oats at noon; 100 hens will eat about 25 to 30 pounds.

Grit and Oyster Shell:—Hard, sharp grit grinds the feed, oyster shell supplies lime; hens need both grit and shell.

Water:—One dozen eggs contain about one pint of water. Clean, fresh water must be supplied regularly each day.

Milk:—Where 100 hens have 20 to 12 quarts of buttermilk or sour skimmed milk per day, meat scrap need not be used in the mash. Otherwise, it will pay to buy meat scrap.

Other feeds as Substitutes:—Wheat screenings and wheat feed are often musty or loaded with weed seeds and dirt. Mustiness can be detected by odor and taste. Musty feeds or litter and frozen green feeds are dangerous; it is safest to feed clean wholesome feeds.

Buckwheat may be used in the place of oats or barley.

Corn feed-meal or hominy feed may be substituted for cornmeal.

Green-cut bone is safe only when strictly fresh; feed about 3 pounds per 100 hens per day, and use half the usual amount of meat scrap in the mash.

A good grade of tankage may be used in place of meat scrap, but the latter is to be preferred.

Clover leaves, dry or steamed, are relished and add variety.

Where the flock is small or home grown feeds are not available, it is advisable to buy ready mixed feeds.

Breeds:—These rations are recommended for all breeds, but the method of feeding is to be varied. To encourage exercise, feed the heavier varieties but very little grain in the morning. Emphasize the feeding of dry mash, meat scrap, milk, and green feed.

2

FEEDING CHICKS

A Good Ration:

Scratch Grain	Mash
Fine cracked corn	Wheat bran30 lbs.Cornmeal.30 lbs.Wheat middlings20 lbs.Meat scraps15 lbs.Bone meal5 lbs.
	100 lbs.

Method of Feeding:—More chicks die each year from the result of poor feeding than from any other cause. Most of the bowel trouble in little chicks is caused by over-feeding or feeding too soon after hatching. The chicks ought to appear hungry at each feeding.

The First Feed:—When the chicks are about 48 hours old they can be given their first feed. This feed should consist of a small amount of rolled oats, hard boiled eggs, bread crumbs or chick scratch grain to which has been added some fine grit. It should be fed on a board or in a shallow dish.

Feeding the Grain:—During the first week or so, feed scratch grain sparingly four or five times daily. During the second week feed grain three or four times daily. When the chicks are about 6 weeks old substitute coarse cracked corn and whole wheat for the fine cracked grains. After 10 weeks of age gradually change over to the hen scratch grain. At this time hopper feeding of the grain can be successfully managed. No rule can be given as to the amount of feed. Vary the amount with the appetites of the chicks. After the first few days feed all scratch grain in a good clean litter.

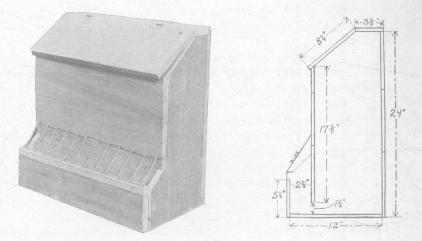
Feeding the Mash:—Beginning the second day after the chicks are removed to the brooder, give them free access at all times to a hopper of wheat bran. During the second week substitute chick mash for wheat bran. The dry mash method is more satisfactory if the chickens are to be grown to maturity. A combination of dry moist mash is advisable if the chicks are to be marketed for broilers.

Milk:—Milk, in some form, is almost indispensable in the first week or two of a chick's life. To make sure that all the chicks learn to drink milk is better not to supply water for at least a week. If the chicks have all the sour milk they will drink, meat scraps need not be added to the dry mash. **Water:**—An abundant supply of clean, fresh water must be kept constantly before the chicks. Cleanliness in the care of water vessels is of great importance, because of the many diseases that may be transmitted from chick to chick thru the water.

Grit:—Grit is necessary in order to insure good digestion. For the first few days a small amount of grit may be mixed with the grain ration. After that time, grit should be kept before the chicks at all times. Any hard stone finely crushed may be used for grit.

Green Feed:—Growing chicks require a liberal supply of succulent feed. The most satisfactory method of providing green feed is to allow the birds to range over grass, clover, or alfalfa.

Ready Mixed Feeds:—There are a number of ready mixed milk mashes that are sold by dealers which can be economically used in small flocks. Commercial chick scratch grains are good if they do not contain too much weed seed.



Dry mash self-feeder

4