

POULTRY.

Lay up for your hens treasures of earth for the dust bath the coming winter.

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A dead bird—well buried or burned—carries no contagion. The axe is good medicine when the sick bird is not too valuable.

The Hen Problem Again.

Editor "The Farmer's Advocate":

The question which naturally arises in the farmer's mind, as he passes the door of his hen-house at this particular time of the year, is: Will those hens lay this winter? Will they return a profit or a loss? The answer rests with the poultryman, for it is possible to make a paying proposition of most any flock; but it is easier, as many of our readers can testify, to make a dismal failure of the poultry department.

The principles underlying successful poultry management are not radically different from those of any other branch of live stock. Let a man attend to his flock of hens as conscientiously as he does his dairy cattle, his fattening pigs, or his horses, and there will be no trouble about the hens not paying, and paying a far larger dividend upon the capital invested than any other branch of live stock on the farm. It is when the caretaker begins to think the hens may miss a meal some evening when he is in a hurry, or overlooks their wants in the morning, that they lodge the well-known protest of "no eggs." What would the dairy cow do under the same treatment? What would the man of the house have to say if he were treated in this manner? Let us not expect too much of the hen when she is made a subject of slipshod attention, but give her the attention that is her due, and disappointment will not be ours.

To commence with, our chances of success will be greatly enhanced if we are dealing with the so-called utility breeds, such as Rocks, Wyandottes or Orpingtons, or crosses of the same. An expensive house is not at all necessary; the two essential principles are that the house must not be damp or draughty. Apparently, it makes little difference how cold the house becomes, provided the hens can be kept busy. Therefore, no man need raise the objection of cost as an excuse for the neglected condition of his poultry.

The hens should be established in their winter quarters early in the fall, as a change of quarters is a sure check to egg production; and no effort should be spared to get them laying before the cold weather sets in, because, if this can be accomplished, one may rest assured that, with reasonable care and good feeding, they will lay right along through the winter.

As to the matter of feeding, no absolute hard-and-fast rules can be laid down, as the feeder must adapt himself to conditions and make use of the feed at his disposal. Suffice it to say that, if the hen can be kept busy from the time she leaves the roost in the morning until she gets back again in the evening, by scratching for grain in a deep litter, reaching or jumping up for meat or vegetables that have been hung slightly out of reach, and in other ways contriving to make her work for what she gets, provided she has access to plenty of pure water, green stuff and grit, and receives any measure of careful attention, there is no reason why she cannot be made to produce eggs, and produce them abundantly, even if the conditions otherwise are somewhat unfavorable.

Brant Co., Ont.

The Maine Experiment Station Poultry Ration.

In our last number we quoted at some length from Bulletin 130, of the Maine Experiment Station, citing their experience in developing superior laying strains of fowls by selection, according to egg records obtained through the use of trap nests. An appropriate sequel is the following excerpt from the same bulletin, describing their system of feeding the laying hens. By way of preface we also submit the accompanying statement of the cost of raising their laying pullets:

COST OF PULLETS RAISED FOR LAYERS.

Last season 2,000 pullets were raised for layers, and the following materials were used in producing each one:

28 pounds of grain, meal and scrap, costing	44.5 cents.
$\frac{1}{4}$ pound of cracked bone	1.5
$\frac{1}{4}$ pound oyster-shell	.25
$\frac{1}{4}$ pound mica crystal grit	1.25
$\frac{1}{4}$ pound charcoal	.5
$1\frac{1}{2}$ pints of oil	2.5
2 eggs	4.0
	54.5 cents.

Before they were moved into winter quarters (about the last of October) many of them were laying in the brooder houses, and the eggs from them at that time had sold for a hundred dollars.

FEEDING THE HENS.

For many years warm mash was made from mixtures of different meals, sometimes with the addition of cooked vegetables, were given to the hens every morning during the winter season, and in warm weather mash of similar composition but mixed with cold water were fed. The hens seemed to like mash made in this way better than anything else except corn, and if fed anywhere near enough to satisfy their appetites they would load themselves with food and then sit down in idleness during the early part of the day. They were not willing to scratch in the floor litter for the wheat, oats and cracked corn that had been buried there for them.

The losses of hens from what appeared to be the system of feeding, caused the change of time of feeding the mash from morning until near night, and giving the cracked corn, wheat and oats in the litter in the morning and near noon.

These changes resulted in the better health and productiveness of the birds, but the crowding for the mash at feeding time, and the hurried filling of their crops to repletion even near bedtime, did not argue for the best.

Several different plans of feeding were compared by testing them for a year, and finally the moist mash was abandoned altogether. The present system of feeding has been practiced here for two years, and is regarded as the best method thus far used. The dry meal mixture is composed of the same materials, in the same proportion as the moist mash was, but the method of feeding it is different. It is kept within reach of the birds at all times, but they never stuff themselves with it, either because they do not fear an exhaustion of the supply by their competing mates, or else it does not taste so good to them as to cause them to eat of it to repletion. Yet they appear to eat enough of it. It is rich in the materials from which hens make eggs. Hens that lay many eggs must be generously nourished. In the changes in feeding made here, it was not the quantity or composition of the ration that was altered, but the feeding habits of the birds.

It is not proved that our present system of feeding is the only correct one. Some other methods may be better, but at the present time it is giving excellent satisfaction with Plymouth Rocks.

Dry Foods Only.—Early in the morning, for each 100

hens, 4 quarts of screened cracked corn are scattered in the litter, which is six or eight inches deep on the floor. This is not mixed into the litter, for the straw is dry and light and enough of the grain is hidden so the birds commence scratching for it almost immediately. At 10 o'clock they are fed in the same way 2 quarts of wheat and 2 quarts of oats. This is all the regular feeding that is done.

Along one side of the room is the feed trough, with slatted front. In it is kept a supply of dry meals mixed together. This dry meal mixture is composed of the following materials, viz.:

200 lbs. good wheat bran.
100 lbs. corn meal.
100 lbs. middlings.
100 lbs. gluten meal or brewers' grain.
100 lbs. linseed meal.
100 lbs. beef scrap.

These materials are spread on the floor in layers one above another, and shoveled together until thoroughly mixed, then kept in stock for supplying the trough. The trough is never allowed to remain empty. The dry meal mixture is constantly within reach of all of the birds, and they help themselves at will.

Oyster-shell, dry cracked bone, grit and charcoal are kept in slatted troughs, and are accessible at all times. A moderate supply of mangolds and plenty of clean water is furnished. About 5 pounds of clover cut into inch lengths is fed dry daily to each 100 birds in winter. When the wheat, oats and cracked corn are given, the birds are always ready and anxious for them, and they scratch in the litter for the very last kernel before going to the trough, where an abundance of food is in store.

It is very evident that they like the broken and whole grains better than the mixture of the fine dry materials; yet they by no means dislike the latter, for they help themselves to it, a mouthful or two at a time, whenever they seem to need it, and never go to bed with empty crops, so far as noted. They apparently do not like it well enough to gorge themselves with it, and sit down, loaf, get overfat, and lay soft-shelled eggs, as is so commonly the case with Plymouth Rocks when they are given warm morning mash in troughs.

Some of the advantages of this method of feeding are that the mash is put in the troughs at any convenient time, only guarding against an exhaustion of the supply, and the entire avoidance of the mobbing that always occurs at trough feeding when that is made the meal of the day, whether it be at morning or evening. There are no tailings to be gathered up or wasted, as is common when a full meal of mash is given at night. The labor is very much less, enabling a person to care for more birds than when the regular evening meal is given.

The average amounts of the materials eaten by each hen during the last year are about as follows:

Grain and the meal mixture	90.0 pounds.
Oyster-shell	4.0 pounds.
Dry cracked bone	2.4 pounds.
Grit	2.0 pounds.
Charcoal	2.4 pounds.
Clover	10.0 pounds.

These materials cost about \$1.45.

The hens averaged laying 144 eggs each.

Preparing for Winter.

Clean up and keep the poultry yards and houses clean all through the fall days, and the spring-time will come on in good shape for the next year's crop of chicks. Scald all the coops before putting away. They can harbor lice alive all winter. Scrape off the droppings left upon the ground and throw lime and ashes plentifully where the coops once sat. Don't allow the young fowls to roost on fruit trees, as some do, until very late in the winter if you expect the fowl and the trees to live. Of all the filthy sights it is the poultry-houses and poultry premises dirty and ill smelling with droppings piled high on every floor, on top of every box or barrel. And yet this is a common sight in the fall on some farms.

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Now is the time to gather road dust for the hen's comfort in the cold days, when she can neither scratch nor dust herself. Shallow boxes, or a corner of the scratching shed shut off with a board, are good enough receptacles in which to store the dust. Some sand, some ashes to keep it from packing and soften it, will be all right, as an addition, and lime or insect powder to kill the chance vermin that do not always succumb to dust. Charcoal in plenty should be stored. In spite of best endeavor the lack of exercise through the stormy months, as well as the lack of proper vegetable diet, will tend to set up digestive troubles that show in the early spring months just when poultry is highest and plenty of healthy eggs are wanted for the incubator or early chiggers. Charcoal wards off these diseases that kill as surely sometimes if not as quickly as cholera. Grit is another winter essential. We have all heard the old tale of winter poultry wants so often. Despite its repetition every winter sees thousands of chickens going for weeks at a time during hard frozen or snowy weather, without a sharp bit of grit in sight. Smash up all the old dishes you can gather and place in a box somewhere handy if you cannot provide boxes of good gravel, which is always full of the sharp stones and bits of iron necessary for poultry health.



How the People Like to be Humbugged!

Scene at an Eastern fair. A fountain pen, indelible pencil and an ordinary lead pencil, all for the same price, low price of 25 cents; just to advertise the goods. What a lot of money these enterprising firms lose in advertising!