

POULTRY.

Whole vs. Ground Grains for Laying Hens.

At the Geneva (N. Y.) Experiment Station, Wm. P. Wheeler conducted a series of experiments with two pens each of Leghorns and Buff Cochins, with a view to ascertain the relative merits of whole and ground grains as food in the production of eggs. The pens of Leghorns were numbered 1 and 2, and the Cochins 3 and 4. The two pens of each breed were alike, so far as breeding, maturity, etc., were concerned. The experiment was extended over two years of the same feeding, the observations as to relative profits being made the second year.

The Foods.—Pens Nos. 1 and 3 (one of each of the breeds) were given for the morning feed each day a mixture of ground grain moistened. As much of this as they would readily eat was fed warm in cold weather and cool in hot weather. Later in the day some kind of whole grain was fed, scattered in the clean straw.

Pens 2 and 4 were fed whole grain of different kinds, with the single exception that corn was cracked. This was scattered in straw on tight wooden floors, and none was left uneaten.

All the hens were fed twice each week all the cut fresh bones they would eat. Either green alfalfa, cabbage, corn silage, or soaked chopped hay was fed at noon, the moistened hay being fed warm to pens 1 and 3. Plenty of stone grit and oyster shells were kept always in each pen. The mixed grain fed to pens 1 and 3 was made to correspond closely to the combination of whole grain which was fed at the same time to pens 2 and 4. The foods used were wheat, cracked corn, oats, barley, buckwheat, flaxseed, cabbage, corn silage, alfalfa (green) and hay, skim milk, and fresh bone, compounded so as to form a well-balanced ration. These foods were not all being fed at the same time, as for instance flaxseed was fed only during the latter part of the year when the hens were moulting, and skim milk was fed during another portion of the time.

For the pen of Leghorns No. 1, having the ground grain, the amount of water-free substance in the food taken per day per fowl, on the average of the whole year, was 2.83 ounces. For pen No. 2, having whole grain, the average was 2.94 ounces, an excess in consumption of about four per cent.

For pen No. 1 the cost of food per hen for the whole year was \$4.27 cents. The average number of eggs was 92.91. The food cost for every dozen eggs was 10.88 cents. The market value of eggs laid per hen was 133.86 cents, exceeding the cost of food by 58.8 per cent.

For pen No. 2 the cost of food per hen for the whole year was \$5.56 cents. The average number of eggs was 77.03. The food cost for every dozen eggs, 13.33 cents. The market value of eggs laid per hen was 111.51 cents, exceeding the cost of food by 30.3 per cent.

For the pen of Cochins No. 3, having the ground grain, the amount of water-free substance in the food taken per day per fowl, on the average for the whole year, was 3.41 ounces. For pen No. 4, having whole grain, the average was 3.50 ounce, an excess over the consumption of No. 3 of only about 2.6 per cent.

For pen No. 3 the cost of food per hen for the whole year was 102.22 cents. The average number of eggs was 47.51. The food cost for every dozen eggs 25.8 cents. The market value of eggs laid per hen was 75 cents, being 2.66 per cent. less than the cost of food.

For pen No. 4 the cost of food per hen for the whole year was 103.33 cents. The average number of eggs was 63.72. The food cost for every dozen eggs 19.44 cents. The market value of eggs laid per hen was 110.76 cents, exceeding the cost of food by 7.3 per cent.

Although all the hens were fed liberally, the average for the year shows that those having the ground grain were satisfied with less actual dry matter in the food. The cost of the ground grain ration was also somewhat less. These differences, although noticeable, were not so pronounced as similar ones observed during the first year.

The Leghorns having the ground grain laid over 20 per cent. more eggs than those having only whole grain, and showed nearly twice as great difference between the market value of the eggs and the cost of food. On the average for the year, 22 per cent. more food was taken by pen No. 2 for the same egg production than by pen No. 1.

Summary.—(1) Two pens of laying hens, one of a large and the other of a small breed, having a ration the grain of which was whole, ate during their second year somewhat more food at little greater cost than two similar pens having a ration in which half the grain was ground and moistened.

(2) Cochins having the whole grain ration laid much better than those having the ground grain, although neither lot laid at a profitable rate during the second year.

(3) Leghorn hens having a ration in which the grain was whole consumed on the average for two years over 20 per cent. more food for the same egg production than did similar hens having half the grain in their ration ground and moistened. The hens having whole grain had on the average for two years 6.4 pounds of water-free food for every pound of eggs produced. Those having ground grain had on the average for the two years 5.3 pounds of water-free food for every pound of eggs produced.

Poultry for Market.

The supply of poultry for Christmas and New Year's is usually very large, and the demand chiefly for the very finest grades. Stock intended for holiday trade should therefore be prepared with extraordinary care, that it may present as handsome and attractive an appearance as possible.

It is best to fast the birds from 12 to 24 hours before killing, but during this time the poultry should have plenty of water. In case any fowl should be found to have food in the crop after killing, it should be removed by making a clean-cut incision in the back of the neck and the full crop worked out under the skin.

There are two methods of dressing—dry picking and scalding. As a general rule the chickens, fowls and turkeys which command the highest price are dry picked, but by no means do all dry picked lots sell higher than scalded. Lean poultry always looks much thinner when dry picked than when scalded and plumped, and thin poultry commands more when scalded than when dry picked. For this reason chickens and turkeys should be dry picked only when very fat and of fine quality. Ducks and geese should always be scalded.

No poultry should be killed for market which is not of reasonably good size and in good condition. Small, thin, framy turkeys, such as are often sold very early in the season, are always a drug in the market and are unprofitable. Spring ducks should be kept back until almost full-grown.

One of the most essential points in dressing poultry so as to carry well is to get all the blood out of the body which can possibly be withdrawn. The manner of killing affects the flow of blood materially. All kinds should be killed by cutting through the roof of the mouth to the brain with a sharp-pointed knife. But if the fowl is "stuck" very hard and deep so as to cause instant death the blood will not flow freely and the feathers will be set so as to be difficult of removal, especially if dry picked. The proper killing is an art that requires practice and judgment. Just the right thrust of the knife will reach the brain and paralyze the fowl, relax all the muscles so that the feathers may be afterward easily removed, and permit a free flow of blood before the fowl is actually dead. Free bleeding is so important that too much care cannot be taken in acquiring just the right method of killing.

Scalding and Picking.—Boiling water is too hot, but just a little below that point will give good results if the operation be carefully done. The birds should be immersed by holding the legs and head, lifting them up and down several times. Guard against over-scalding, as it causes the outer skin to rub off, giving the fowls a bad appearance. Chickens and turkeys should be plucked cleanly immediately after scalding, without breaking the skin. After scalding ducks and geese, they should be wrapped in a cloth for about two minutes, when the down will come off with the feathers. All scalded poultry should be "plumped" after picking, by dipping for about two seconds in very hot water. Then it should be placed in cool water for about twenty minutes, when it may be wiped and allowed to dry before packing for market.

Put Your Flocks on a Paying Basis.

BY J. E. MEYER.

The time is at hand when we will find it necessary to confine our fowls to their winter quarters. The great mistake made by over nine-tenths of the farmers is to crowd too many birds into their houses. No more costly mistake can be made in handling poultry than to crowd them, because a small flock kept in good roomy quarters will lay far more eggs in proportion than a large flock kept in the same pen, and eat very much less. We at first made the mistake of keeping from 30 to 40 birds in a pen 10 x 12 feet, in which we now keep only half that number, with the result that we every winter get far more eggs than we originally did from double the number, at a far less expense.

Another mistake far too commonly met with, and one that is greatly to blame for the "no-money-in-poultry" cry of so many, is that of huddling birds of ages ranging everywhere between say two months' old "peepers" and croaking old "biddies" of ten years. Some birds in a flock of this kind will, no doubt, lay under decent management, but a much larger number persist in doing nothing but eat under any kind of care you choose to give them. Such flocks never pay, and now is the time to kill off all the drones, leaving all the young hens that have moulted out nicely, are looking ruddy, and are in good condition. Also keep only those pullets that are well-grown and in good condition; those that are heavy and well-matured. Now, you may have only a few such hens and pullets, but there is no use expecting to make anything from your flock unless you keep only those that will give a return for the food given them. Far better have only ten birds that lay a fair number of eggs this winter when they are worth most money than have twenty, ten of which eat up all the profits you obtain from the ten good ones. It does not require a philosopher to see the point. By culling your flock in this manner you will in a short while learn that there is some money in poultry when they obtain the same careful management you give the other stock of the farm.

Distemper in Fowls Followed by Roup.

SUBSCRIBER, Kent Co.:—"Some time ago a young cockerel caught a disease which caused him to sneeze constantly. Since then it has spread until the whole flock is affected. Generally they get better, but in some cases worse. Two have died, and upon examination we found a plug of yellow, cheesy matter, about an inch long, in their windpipes; otherwise they appeared healthy. Please give cause and cure, and oblige."

[Evidently the trouble is distemper, followed by "roup" and "canker." We have visited a great many poultry yards this fall, and we have noticed a great many birds with distemper, owing, no doubt, to the cold rains and changeable weather the latter part of September and October. At this season of the year fowls are moulting and require more attention than at any other time. Fowls that are allowed to roost in trees or open sheds, or chickens allowed to sit on damp ground, or filthy quarters, are more or less subject to this disease.]

Symptoms.—Very red in face and comb; face often swollen so as to close one or both eyes; eyes watery, a discharge from the nasal passages, frequent sneezing, with fever. The fever's progress and intensity of the disease are in a great measure dependent upon the condition of the fowl when attacked. If the fowl has tubercle in the system it is very quickly deposited in cheesy matter in the glands about the throat, especially around the windpipe and at the corners of the mouth, and the fowl becomes ropy. If not arrested the disease slowly and surely advances, attacking in blotches the mucous membranes of the nose, throat, and windpipe. Sometimes these patches are in appearance like a collection of fine points, which coalesce and a false membrane forms, completely covering the underlying mucous membrane. At other times the growth is in appearance like a fungus. Inflammation of the mucous membrane is set up by the disease, and if at this stage it is not checked sloughing takes place, and owing to this and the thickening and decomposition of the natural secretions of the parts attacked the fowl becomes ropy; hence the term "diphtheric roup." When the disease has attacked the windpipe a lot of froth sometimes hangs about the mouth and nostrils, and when the nasal passages are blocked up it is forced through the lachrymal glands into the corners of the eyes. This disease sometimes assumes a chronic form, when there is no discharge, and may be termed "dry roup." Fowls in this condition are sometimes considered by their owners as in perfect health, and probably sold as such, and coming in contact with healthy fowls after a time an outbreak of this disease will be found and the owner is at a loss to account for it.

Treatment.—In the first place, isolate the birds affected, placing them in warm and dry quarters, free from draft. If only one or two birds, and not valuable ones, I would advise the use of the hatchet and turn your attention to the rest of the flock. If valuable, give opening medicine, such as castor oil or Epsom salts, and I have given a little kerosene oil in the drinking water. Clean out the nasal passages, using a lotion made by adding a fourth part of an ounce of sulphate of copper to a pint of rain water. I used Dr. Hess' Panacea with good results, as have several others in this section. It can be purchased at the leading seed stores. The directions will be found with each package.

L. G. JARVIS,

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MR. MEYER'S MODE OF TREATMENT.

We think there is no doubt that "Subscriber's" fowls have distemper or cold, which, being neglected, is turning to roup, although he has said nothing about eyes swelling or discharge from the nostrils.

The cause.—Exposure to cold drafts or dampness has caused some of the weaker members of the flock to take cold, and it has spread as it always does when neglected.

Treatment.—The moment we find a bird breathing heavily or sneezing we remove it to a closed coop where it will be warm, free from drafts, and away from the rest of the flock. At once pour down its throat (we use a small oil can) say ten drops of coal oil. We never measure the quantity. Inject a little coal oil into each nostril, and by holding the mouth shut and the head up force it to breathe through the nostrils and the oil to run through them. Dust the bird thoroughly with insect powder, feed it well, and in a day or two, without any further treatment, it will recover. Repeat the oil if necessary at night each day. When the head is swollen sponge it with a mixture of equal parts of vinegar and water.

If the disease becomes general, as it has in the case of "Subscriber," besides the above take a tablespoonful of lard, half a tablespoonful each of ginger, cayenne pepper, and mustard; mix them thoroughly with flour enough to work into shape. Roll out into slugs one inch long by three-eighths of an inch in diameter. Give each affected bird one each night. Add bromide of potassium to the drinking water for the whole flock in the proportion of two grains for each fowl for three or four days or until cured. All birds that do not improve after a few days' treatment had best be killed and buried. Do not forget to treat for lice. The coal oil need not be injected into the throat when the slugs are given, but do your best to keep the nostrils free and all cheesy matter removed from the throat and nostrils.

J. E. MEYER.]