

POULTRY.

How to Obtain the Greatest Egg Yield.

BY J. E. MEYER.

The following is a description of the last annual egg contest conducted by the *National Stockman*. One hundred and forty-three pens of fowls continued in the contest throughout the year. Each contestant was required to give weekly reports of the eggs laid, and they were valued at the current price of eggs on the Pittsburgh market. The six highest winners and the number and value of eggs were reported as follows:—

First.—Pen 112, W. S. Stevens, Mechanicstown, Ohio, eight white Plymouth Rock pullets; an average of 289 eggs each, or a value of \$5.02 per hen.

Second.—Pen 189, Wm. G. Dodson, Carrollton, Ohio, eight cross-bred pullets; an average of 283 eggs each, or a value of \$4.82 per hen.

Third.—Pen 115, J. G. Redkey, Rainsboro, Ohio, eight white Plymouth Rock pullets; an average of 290 eggs each, or a value of \$4.00 per hen.

Fourth.—Pen 75, L. E. Bradbury, New Lisbon, Ohio, eight single-comb Brown Leghorns; an average of 270 eggs each, or a value of \$4.64 per hen.

Fifth.—Pen 88, Z. N. Allen, East Brook, Pa., twenty-four single-comb Brown Leghorns; an average of 277 eggs each, or a value of \$4.89 per hen.

Sixth.—Pen 154, Z. N. Allen, East Brook, Pa., twelve barred Plymouth Rocks; an average of 262 eggs each, or a value of \$4.24 per hen.

How it was done.—We believe that great and useful lessons can be learned from the manner these hens were housed, fed and bred in order to obtain from them these enormous egg yields. There is no live stock on our farms that can, under proper management, be improved so rapidly and so profitably as our poultry. There is no product of the farm that can be turned into cash more readily than good fresh eggs. What we wish to impress upon our readers is that, without very much trouble or expense, every farmer in this Province has it in his power to increase the egg yield of his hens from say 120 each per year to from 262 to 289 each. We cannot tell you better how to do this than by quoting what these successful men give as their methods, which, condensed, is as follows:—

Mr. W. S. Stevens, the winner of first prize, says: "The eight white Plymouth pullets were kept in a house 12x20, divided into two parts, each 10x12, one part being used for a scratching-shed and the other part containing the nests and roosts. The building is seven feet high, and is a frame, weather-boarded with fine siding, and ceiled with matched pine flooring. The floor is mother earth, covered about four inches deep in the fall with road dust and sand. The building faces south, there being two windows, which extend from the floor to the roof to admit sunshine and light, so necessary to the health and happiness of the fowls.

The perches are about three feet from the floor, and under them are droppings boards. The fowls had free access to oyster shells and grit. Twice a week they were fed fresh granulated bone. Their food consists of a warm breakfast—equal parts of bran, wheat middlings, and chopped corn and oats, and into this I put fine beef meal. At noon I feed wheat, which is thrown into the scratching-shed to give them exercise. In the evening they are fed whole corn. From April to November their morning meal is moistened with cold instead of warm water, and no corn is fed in the evening, but wheat instead.

I clean the house twice a week during the winter, and every other day in summer. I am never troubled with a sick fowl.

Mr. Wm. G. Dodson, who won second prize, speaks of his method as follows: "Each morning these pullets had a hot feed of chop, mixed with the water that the fresh bones and beef scraps were boiled in. After that some wheat and oats were thrown in the straw for them to scratch for. At noon they had ground bone and meat scraps and stale bread. At night they had, in summer, wheat and barley, and in winter corn and buckwheat. At all times they had before them fresh water, and each day fresh milk. Twice a week I gave them some buttermilk. They also had at all times a good supply of broken dishes, seashells, and lime-stone broken in small pieces, and once a week they had a small quantity of ground ginger and black antimony.

The house was cleaned once a week, and the floor sprinkled with air-slaked lime, and the inside of the house dosed with coal oil. The dust box was four feet square, and filled with sifted coal ashes and road dust mixed.

These pullets were bred from my best layers, singled out for several years.

Mr. J. G. Redkey, the winner of third prize, says: "I feed warm food in the morning, composed of cooked meat, two parts, to twenty parts of cracked wheat, with whole wheat and oats at noon, scattered in litter. I feed oats, wheat, and corn at night, with clover heads, cabbage, beets or turnips for green food, and cut bone, oyster shells, and crushed limestone. My houses are built 14x20 feet, with a hall 4 feet wide in front, and four six-light windows in front. There is a partition in the center, making two pens 10x10 in each house. These houses are double boarded, with tarred paper between. Each house is 5 feet high in the rear and 8 feet in front. Each house has an earth floor, filled in with from six to eight inches of pounded clay, with four inches of coal cinders on top, which makes a floor

perfectly dry. These houses are frostproof, having withstood a temperature of 21 degrees below zero. This, I think, is one of the great secrets of winter egg-production, as my twelve years' experience has taught me that you cannot expect to get eggs in winter with all the feeding and care you may be able to give, unless you have comfortable houses for them.

There is, also, a great difference in the laying qualities of birds of the same breed, some strains laying almost double the number of eggs of others of the same breed. I have been mating some of my pens with the object of obtaining the best layers for the past eight years, and by careful selection have increased the average per hen from 212 nine years ago to 280 in 1894.

I have never allowed my hens to rear chickens, as I hatch and rear all my fowls by artificial heat; and when I have a hen that becomes broody I remove her to a yard prepared for that purpose, containing no nests or secluded corners, and in a few days she can be returned to the pen again and will soon be laying as though she had never offered to set. It is my belief that fowls hatched in incubators and reared in broods year after year will lose to some extent the habit of incubation. [In Egypt, where artificial incubation has been followed for centuries, the native hen of that country has abandoned the work of hatching, which confirms Mr. Redkey in his opinion.]

Summing up the exceedingly useful information given in these extracts, we will find that the chief requisites to successful egg-production are:—

1. Warm, comfortable houses.
2. Hens that have been carefully bred from the very best layers.
3. Plenty of room. Eight pullets in a house 12x20 laid \$40.16 worth of eggs in a year. Do you think 80 pullets, fed ten times the quantity of food, would have produced ten times the income of the eight in the same house? The chances are that they would not have laid as many eggs during the winter as the eight did.
4. Feed a variety of food, grit, and clean water, and don't forget to feed meat, especially during winter.
5. Like the rest of us, the hen was intended to work for her living, so be sure to give her plenty of scratching to do.
6. Keep the houses clean.

QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

Legal.

ENQUIRER, Lanark Co., Ont.:—"I sold my farm last fall, but have possession till spring. Nothing was said either in bargain or in written agreement about either feeding cattle on the place or leaving any straw or other stuff on it. If I feed my cattle on it this winter to whom does the manure belong?" [You are legally entitled to remove the straw and manure.]

Veterinary.

FILLY PERSPIRING.

N. J. E., Russell Co., Ont.:—"I have a Clyde filly rising two years old; she gets three quarts of cats daily and all the clover hay she can eat; has a good appetite and is growing well. She perspires very much during the night and has a sour smell. 1. What is the cause of her perspiring? 2. Will it do her any harm; if so, what can I do for her?"

[As the filly is hearty and thriving well her health does not all much. The food she is getting can hardly be improved upon except by the addition of a small feed of roots (turnips or carrots) once a day. 1. We would suppose that she has a heavy coat of hair and is housed at night in a close, un-ventilated stable along with other stock. 2. There is danger of her catching cold, if turned out when damp from perspiring. She would no doubt thrive even better than at present were she kept in a cooler and therefore more comfortable house. If she has been kept on hot manure, daily cleaning out of the stall would improve her quarters; also give her, if possible, a well-ventilated, though not drafty, stall, away from the heat of other animals.]

STAPHYLOMA OF THE EYE.

MALCOLM McDERMID, B.C.:—"I have a grade Jersey heifer, rising three, whose eyes seem abnormally large. The ball around the pupil is reddish, and protrudes painfully. Her sight seems to be slightly affected, as she never looks straight at an object. Perhaps some of your subscribers may have met with a similar case. Should be glad to know if there is any remedy."

[This is a disease of the eyeball in which the cornea at first loses its transparency, rises above the level of the eye, and even projects beyond the eyelids. Inflammation from cold is the only cause. It frequently follows catarrh of the lining membrane of the nose. One or two cases have come under our notice of rupture of the conjunctiva in cattle, and a large number in dogs after distemper. Treatment for cattle: Warm fomentations and a lotion composed as follows: Nitrate of silver, 3 grains; distilled water, 1 pint; sulphate of morphia, 1 grain; to be used frequently. DR. MOLE.]

SIGNS OF PREGNANCY.

JOHN H. TAYLOR, York Co., Ont.:—"Please inform me through the *ADVOCATE* what is the cause of my cows passing a whitish fluid when lying down. They are not due to calve until May or June, are in good order, apparently healthy. We are feeding corn fodder, cabbage, and brewers' grains. Kindly let me know the cause and a remedy."

[The symptoms of this case are not very definite. It might arise from slight inflammation of the mucous membrane lining the canal, due to cold or exposure. It might also arise from a condition and irritation of the vaginal walls from lying in stalls that are much lower behind than is necessary, or a sign of pregnancy.

W. MOLE, M. R. C. V. S., Toronto.]

DEBILITY.

SUBSCRIBER, Ont. Co., Ont.:—"I have a horse that is not doing well. He has a good appetite, but his food does not seem to do him any good. He keeps poor, no life, rough in hair, and legs swell when standing. I have been feeding straw (have no hay), clear oats and turnips two or three times a day. When feeding straw I notice that it is more difficult to keep a horse right."

[It is a mistake of many to think that horses at light work can be kept in good heart on a straw diet. The only use of straw is to 'dilute the oats so that they can be better masticated and digested. The beads of straw frequently become lodged, and are productive of more or less serious trouble of the digestion. If you cannot obtain hay, feed oats, and plenty of them, with a few carrots, and occasionally a bran mash, with a small quantity of molasses seed twice a week. DR. MOLE.]

Miscellaneous.

QUANTITY OF OATS IN A BIN.

H. N. C., Toronto:—"How many bushels of oats will a bin hold, 6½ feet—long many bushels, and 5½ feet deep?"

[A measured bushel of grain occupies 1.28 cubic feet of space. The cubic contents of the bin in question is 205.56 feet, which divided by 1.28 gives 160.5 bushels by measure.]

INFORMATION RE DRIVEN WELLS.

SUBSCRIBER, Prince Edward County:—"How is a well driven? The necessary tools and the cost of them? Can it be done where the soil is gravelly?" [Will any of our readers who can do so, furnish us the information requested by "Subscriber."]

ORCHARD CULTIVATION.

H. G. B., Eglington, Ont.:—"I have difficulty in cultivating my orchard. Will it be advisable to seed it down permanently?"

[If your apple orchard is planted properly, with the trees sufficiently far apart, say 30 or 35 feet, there should be no difficulty in plowing it and cultivating it for a year, when it might be then seeded down to clover for one or two years longer. It is not advisable to allow an orchard to remain in sod for any length of time, unless a special system of top-dressing with manure is followed. If plowing and cultivating the land is impracticable, then I would suggest that the orchard be pastured with sheep, if the trees are headed high enough so that the sheep will not browse the lower branches. If it is impossible to do this, then seed the orchard to clover and timothy, cut and remove the hay, then top-dress every year, using barnyard manure and wood ashes alternately. As a general principle, it is well to remember that cultivation will pay in nine cases out of ten. The clover should be renewed by harrowing the sow in early spring and sprinkling clover seed at the rate of five or six pounds per acre. JOHN CRAIG, Dominion Horticulturist, Central Experimental Farm.]

SWAMP MUCK AS MANURE.

D. O., Grey County:—"There is a swale on my farm which contains a deposit of black muck, while the surrounding land is dry and sandy. Would the black muck be a good fertilizer to use on this soil?"

[The average of American analyses show swale muck to be richer in nitrogen, through poorer in potash and phosphoric acid, than average farmyard manure. It varies much in composition, and therefore it is impossible to estimate the value of the muck in question. But there is more than composition to be considered, and it must be remembered that the plant food contained in muck is in a very insoluble condition, and hence the action of muck as a fertilizer is extremely slow, in consequence of which its value is very much lessened. Muck, however, would have a beneficial effect upon the texture of the sandy soil, rendering it more retentive of moisture, but, labor considered, the profit derived from its application is a somewhat doubtful one. Since muck is such a variable substance, it would be a good plan to experiment with a small plot of land, as this is the only satisfactory method of testing the value of the muck in question. Muck is sometimes composted, and after being thoroughly rotted in a compost it makes a very good fertilizer, but the labor connected with this operation is considerable, as will be seen from the methods given below:—

1. Method recommended by Prof. Johnson.—To a cord of muck, which is about 100 bushels, may be added, of unleached wood ashes 12 bushels, or of leached wood ashes 20 bushels, or of marl or gas lime 20 bushels. Ten bushels of quicklime, slaked