

POULTRY.

Our Poultry Essays.

We are much pleased to see the interest which our young readers take in the poultry question, as was shown by the large number of essays written in response to Mr. Stevenson's offer of a setting of Wyandotte eggs for the best essay on "The Management of Fowls on the Farm," to be written by a young man or woman under twenty years of age. We were deeply gratified to see how heartily the boys and girls entered into the contest, for a number of good essays were received from children no more than thirteen years of age. The youngest essayist was Francis Reekie, Lyleton P.O., Manitoba, aged seven; while the next in order of age were his sister and brother, aged respectively nine and eleven.

In view of the large number of competitors, Mr. Stevenson has generously offered to give two prizes, one for the boys and the other for the girls. Now, as all could not be first, we cannot fail to disappoint some, but we would say to all such, do not be discouraged, but remember the old adage, "Try, Try Again," and hope for better success next time. Among the girls, we have awarded the first prize to Nora B. Drader, Watford, Ont., who is only fifteen years of age, and hope that in her next essay she will not have to say that Wyandottes "are said to be," but on the contrary can say from practical experience what their good qualities are. The first prize for boys goes to B. H. Garner, of Maxville.

Owing to our having just published a very full poultry number, in which there were three essays on Poultry Raising which covered the ground very thoroughly, we have decided to withhold the publication of the prize essays until a later date.

If the successful essayists will write Mr. W. J. Stevenson, Oshawa, Ont., how and where they want the eggs shipped, he will send them out at once.

Poultry on the Farm.

BY MRS. IDA E. TILSON.

A writer in Chambers' Journal says a traveller met, in a remote part of Great Britain, an invalid, who, after fruitlessly trying many doctors, had consulted a so-called wizard. The latter gave a charm which she already felt to be working in her. When the traveller learned it was a new-laid carefully cooked egg every morning, he did not wonder at the wizard's reputation and success.

Eggs, excellent for eating, may not contain strong embryos nor even be fertile, and *vice versa*, those with good vitality for hatching can be so in spite of disagreeable flavors. A shipper in an adjoining county told me grasshoppers were thick enough there one season that hens' eggs had an unpleasant taste and almost blood-red yolks. An acquaintance actually could not eat the eggs of a flock allowed to run over a patch of onions where the small ones lay ungathered. But this bulb, two or three times a week as a liver medicine, is useful, and I continue it right on thus with my little chicks. While preparing onions I have tried holding a piece of bread between my lips, a rather awkward way of arresting the irritating exhalation. My preference is to chop onions outdoors, especially if a little breeze scatters the odor. The helpful suggestion of Mrs. Buckbee, that broken crockery be pounded, covered by a paper as protection for eyes, I find completely successful. Soon, or a little before, we shall all be handling so many broody hens, it may be well we should watch their beaks and have a care for our eyesight. My birds are so tame I get careless. One which was disturbed this morning caught me by my nose, but as she did not try to injure me, I still look upon her action as a joke. After all my directions to carry sitters and other hens under the arm, here comes along a writer in the Germantown Telegraph, who says that way rumples feathers, and hens will not have apoplexy held by the feet, heads down. But why do those thus held squall and make frantic efforts to right themselves? I have occasionally seen a strong fowl whirl herself around upright. As a Scotchman said, "I'll gie up if ye convince me, but ye'll no convince me." My biddies coo sweetly as I carry them in my humane way, and though I never noticed any ruffled plumage, would prefer it to ruffled feelings. Before cleaning my houses I first gently drive the inhabitants out under their sheds. The other day a young man secured for the job was so prompt that ere I could speak to my hens, he had waved his arms like a windmill and sent several out into deep mud, whence he waded and brought them back squalling. One poor creature has been snuffy ever since. As I met him and took each, her cries ceased at once. "I do believe your hens know you," was his surprised comment.

Though crop bound and other slightly diseased fowls sometimes lay a few poor eggs, none but healthy fowls long continue laying. The eggs of mature hens are better for hatching than those from immature pullets. If the latter are used every year, degeneracy must finally come, but the eggs of fat old hens turn out poorly, as I know by trial. After considerable testing, I can see no difference in value between the product of active, prolific hens, and that of strong, precocious pullets. Many things in this world must be judged according to individuals instead of classes. Persistence and precocity are the two things we are seeking in layers. Unless, therefore, you learn the history and quality of your settings, you do not know how small your success really will be, while you are imagining how great it may be. Something like a woman who said to the dealer, "There were chick-

ens in those eggs I got last," and he replied, "As you didn't order spring chickens, ma'am, we will only charge for eggs." I have long been looking among my possessions for a very complete table of egg weights, made by a French savant, and lately found a fragment of it. He rates Plymouth Rock eggs as 27½ ounces to the dozen, about what we found them weighing. Hamburg ones are given as twelve ounces to the dozen. I have no such at hand with which to verify his weight, but think Hamburg pullet eggs would fall much below a pound to the dozen. Pullet eggs of every kind, though smaller than hen's eggs, and producing smaller chicks, apparently give lively ones, as entire small breeds do, in contrast with their larger kin. Keep no superfluous fowls, neither pullets nor roosters, as they are eating without making returns, and are only a torment and waste. One Christmas, an acquaintance, intending me a kindness, put a fine, live Poland rooster within a neat cage on our church tree. A gloom was cast over all in the secret by Sir Top Knot refusing to crow, as had been expected the lights and music would cause him. Not discerning his sex, I said at the presentation that when eggs were 18 cents a dozen no such gift should be despised, and was told to look at his sickle feathers protruding, and that it was not in his nature to be a layer. I shall set my hens as usual on dry, warm sawdust or hay nests. Turf, sprinkling and all that, I know by experience to be fit only for summer's torrid heat. Layers will be kept away from each sitter with my usual device of a wide shingle held before the nest by a brick, a shingle so wide it will push out but not in. I have seen recommended a hinged door opening out. Shingles, however, are cheaper. Discarding all flat or ill-shaped eggs, if any afterwards break, I shall wipe off in warm water only those most soiled and remove cracked ones, unless within a day or two of hatching. I once saved a choice egg at such a stage by court-plaster, but have had no success earlier, when eggs must undergo more wear and tear. Though I have tenderly and successfully helped many a chick out of shell, as an experiment, I do not find a large percentage of such making thrifty growth. I like prompt, wide-awake, self-helpful little creatures. The food for laying hens and growing chicks is very similar, so our winter's experience, if we had it, should have prepared us for chicken raising.

Poultry on the Farm.

[An interesting article from a farmer. Furnished us by Mr. A. G. Gilbert, Poultry Department, Central Experimental Farm, Ottawa.]

As the production of poultry is attracting so much attention at the present time, and the Governments of the Dominion and Province of Ontario are doing good work in trying to encourage the farmer to pay more attention to poultry raising and egg production, I thought I would give a little of my experience with the Barred Plymouth Rocks. There is no doubt but poultry raising is one of the neglected industries on the farm to-day. If fowls were better bred and better cared for, the results would soon be seen. The care of poultry in most cases, where they are allowed to roost in open sheds and cold barns, only goes to show the inhumanity of man. To produce eggs in winter and good chicks in summer should be the farmer's aim. After twenty years' experience with a number of breeds, I have no hesitation in saying that the Plymouth Rock is the farmer's fowl. A Plymouth Rock cockerel will bring as much money at three months as the scrub fowl of the farm will at six months, and they are always ready for market, as they take on fat easily.

As a winter layer from December 1st to March 1st, Plymouth Rocks cannot be surpassed by any breed, if properly fed and housed. A warm, well-ventilated house is the first thing necessary for the production of eggs in winter. The food and the way they get it is an important consideration. Stuffing means certain failure. The food that will give the best results with White Leghorns, in my opinion would be quite unfit for Plymouth Rocks. I find I get the best results by feeding the best quality of oats with all the cabbage they can eat; sixteen hens will eat a medium head every two days. I give meat twice a week, cooked beef liver and plenty of grit (oyster shells and bone.) Egg shells are the best of all. I collect all the egg shells during the summer, dry them and grind them up for winter use. I never have any trouble with egg-eating or feather-eating hens, nor with sickness of any kind. I have not had a case of roup among my fowl for eight years. My hens lay the winter through. I know of nothing on the farm that will produce the same profit for the money invested as poultry raising. A great many of our farmers, I am glad to see, begin to recognize this fact. I kept over twenty-two Plymouth Rock cockerels last winter, which I sold to farmers at \$2.00 each. Five years ago, if I asked the same men that amount for a cockerel, they would leave me in a hurry. Everything goes to show there is steady improvement going on in poultry raising. ALEX. STEWART.

Erratum.

In the report of the Poultry Exhibition, a slight error was made in giving the list of exhibitors, for where it is stated that J. Bell, Amber, showed turkeys and geese, it should have read W. J. Bell, Angus. It was also Mr. W. J. Bell, and not Mr. J. Bell, who brought forward the motion favoring the increase of prizes for geese and turkeys, which was passed unanimously.

FARM.

Remedies for Smut.

In this article we do not intend to go into a long description or life history of the smut plant. This may be obtained from works on the subject, viz., the bulletins which have been issued by the Government stations, or by referring to former issues of the FARMER'S ADVOCATE, and especially those of January, '91, March, '92 or April, '93.

What we will try to do is to show the success which has attended the use of the various remedies for the extermination of this fungus disease, and to impress upon all farmers the need of united action in order to reduce the vast loss amounting to millions annually, and which, by a very small expenditure of time, might be almost entirely prevented.

Smut not only reduces the yield of grain, but makes an unsaleable article of that which is left. In some of the neighboring states this pest has reduced the yield from 50 to 70 per cent., while the remaining grain was about worthless for sale. Very few farmers realize the actual amount of loss due to the prevalence of smut. Just what the exact amount of loss in Canada is will be very hard to estimate, as so far no reliable data can be obtained. Various authorities estimate the loss at from 4 to 25 per cent. of the total crop. The members of the Winnipeg Grain Exchange, after handling the millions of bushels which pass annually through this gateway of the west, in a circular express the belief that the loss through smut is greater than that from frost.

REMEDIES.

All the United States Experimental Farms have given the smut question special attention of late, while our own Experimental Farm authorities have been diligent in the same direction. Experiments in these lines all go to show in the first place that the spores of the smut plant are sown with the grain, and in the next that it is possible to kill these spores without injuring the germinating power or the vitality of the grain to any marked extent.

The substances which have been recommended for use as remedies are:—Sulphate of iron, brine, lime water, sulphate of copper or bluestone, agricultural bluestone, a solution of potash and the Jansen hot water system.

Thorough tests which have been made at the different experimental stations all show that the treatment by means of sulphate of copper has proved the most successful method of combating this pest, and also that it is not necessary to soak the grain in the solution, but merely to sprinkle it, and then stir it so that it is thoroughly moistened with the sulphate of copper. The testimony of our most practical farmers have also endorsed this method, as will be seen later on.

In Indiana the Jansen method of treatment is extensively used. The seed is immersed in water at a temperature of 135 degrees for five minutes. In this treatment it is well to have two tubs of water, one at a little lower temperature than the other, so that the bags of grain will be warmed through before being placed in the hot water. This method, though very successful, has never found favor in the eyes of Canadian farmers.

At the Brandon Experimental Farm the test for smut treatment was very significant. Four plots, each one-ninth of an acre, were treated—the land itself was clean, a great thing in such experiments. One plot was sown with smutty seed untouched in any way; the seed on the next was treated with one pound bluestone dissolved in a pail of hot water and mixed with ten bushels of seed; the next was steeped in salt brine, strong enough to float an egg for a few minutes; and the last lot of seed was treated by Jansen's method, with water at 135 degrees. Handfuls were taken here and there all over the plots till about 300 ears were got from each, and from these 200 of each sort were carefully examined. Of the untreated sort 61 per cent. of the ears were found smutty. Of the bluestoned and salted not one head was affected; by the hot water treatment 1 per cent. was lost. This is a very clear proof of the value of preventive treatment. The crop from the untreated seed looked badly smutted, and was fully 10 cents a bushel worse than the other; besides this the risk of the land it grew on tainting the next grain crop should be considered.

The next year experiments were made at the same farm with larger plots, which resulted in a saving of a much greater percentage of grain. Mr. Bedford sums up the conclusions arrived at from his experiments as follows:—

1. Bearing in mind the immense losses sustained through smut, it is necessary for me to point out the importance of the subject, as the results of the last season's experiments emphasize this matter. It appears to me almost criminal for a person to neglect so simple, inexpensive and certain a remedy.
2. Sulphate of copper is decidedly the best preventive used, and is remarkably uniform in its action. One pound to ten bushels is as effective as twice that amount.
3. That lime used with sulphate of copper for the means of lessening the injury to the germination of the seed is of no use for this purpose. The tedious and often inconvenient method of soaking the seed in the bluestone liquid has been found quite unnecessary. A liquid composed of one pound of bluestone dissolved in one to one and

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