

work can only be satisfactorily accomplished with pure bred fowls.

As to mating a large pure bred male with a small mongrel hen or vice versa, with the object of increasing the size of the progeny, the object is certainly laudable but the result unsatisfactory for while you improve upon the size of the smaller parent bird, you also pull down the size of the larger parent. The offspring after all, is only a compromise. By all means keep to the pure breeds. See to it should you purchase fowls that they come from a strain of prolific layers, or if you buy eggs, that they have been laid by birds that are equally good layers. After all, it is really a matter of strain.

#### STRAIN ALL IMPORTANT

And what is strain? Strain is the development and perpetuation by careful selection and breeding of the best points of any variety you may choose. Having procured fowls of a good strain, it is up to you to retain, improve upon, or mar the excellence of that strain. If you have one of the Rock, Wyandotte, Orpington, Leghorn or Minorca varieties see to it that it is of the very best strains. And if you cannot get such a strain as you wish, set to work and make it. It makes me very tired when a man says he has poor egg layers, or fowls of poor egg strain, or fowls of poor market type, or, it may be "eternal sitters." Why, get rid of the birds of such characteristics or breed the bad points out of them! The late Philander Williams originated and for years advertised a non-setting strain of Light Brahmas. They were advertised as the "Autocrat" strain of non-setting Brahmas. Now if Philander Williams could bring about such a revolution—for Brahmas are noted as sitters—by persistent and careful breeding, other poultry keepers can surely bring about desirable strains. It is surely evident that careful and skilled effort should be made in order to do away with the drones, which are present in almost every pen, and which are surely detracting from the profits made by the good layers. Trap nests will give you mechanically correct results.

#### OTHER MATTERS

Above all, the different varieties to suit our cold winter climates should be hardy and the cotton front, or house of similar construction is a means to this end. But our study for this time is long enough.

### Where Ducks are Profitable

"It is just a question in my mind whether there is anything in ducks for the farmer if he raises them for the ordinary market," said Mr. T. J. Cole of Durham Co., Ont., to an editor of Farm and Dairy recently. "Many farmers, however, make money out of ducks by forcing them and marketing them while young. Their eating qualities are the outstanding qualities of this class of poultry. The most profitable means of disposing of ducks is when they can be sold for breeders.

"The Pekin is my favorite breed. They are the largest ducks and I always aim to select a big strain of the breed.

"Ducks must be fed while young. They will not forage like a goose. I feed whole oats principally. When fitting them for the shows, corn is added to their ration. They seem to grow better on corn; of course of course is better for fattening.

"Ducks do not need a warm place in winter. I provide them with a shed. They only require shelter from storms, the same as the goose.

"I keep whole oats in a feed box before my ducks all the time. A nearby stream to which they have access furnishes them with water. Oats are the staple food for the ducks at all times. Chopped stuff is provided for the ducklings.

"The point in duck raising for profit is to have pure bred stuff and to dispose of them for breeding purposes. When marketing them in the or-

dinary way, one must force the ducks and sell them while young. To let them run all summer, as does the average man, they will eat their heads off.

"This much can be said of both ducks and geese, that you never see a sick one. They are not like hens in this respect, so there are no losses to reckon on from that score."

### The Natural Means of Hatching

Geo. Robertson, Carleton Co., Ont.

From the standpoint of the fancier, I recommend the hen for hatching purposes. For a farmer or a poultryman raising chickens in a commercial way to be placed upon the market, the incubator is most useful. Only with the machine can he hatch his birds early enough and in sufficiently large numbers. For raising breeding stock or exhibition stock, the hen is to be preferred. The machine will hatch some good breeding and exhibition birds but in my experience it will not give the same average of good ones as we secure from the old mother hen.

After getting the eggs for setting, the first thing to do is to get the nest ready. The nest is the most important point in the business.



In Close Touch With Nature

Chickens are a constant delight to children. The boys and girls may well be allowed to interest themselves in poultry, in the care of which they will acquire valuable training. The photo was taken on Mr. Rod. Young's farm, Carleton, Ont.

The biggest mistake made in setting hens is in making the nest altogether too small. I use a box that is plenty large enough. Fourteen inches square is about the right size. Exercise care in forming the nest. I put earth in the bottom. A shovelful of loam is sufficient. This should be shaped with the hands, not made too deep in the centre, then a handful of straw should be placed on top.

#### CONFINE HENS WHILE SETTING

I always confine my hens when they are setting otherwise there is bound to be trouble. I place a piece of burlap over the top and down the sides of the nest. The nest being ready, I take my setting hen and place her on the nest in the evening, covering her up with the burlap.

I always look after the setting hens at night making this chore the last work of the day. If the hen does not go back on to the nest, I put her back. I dust each hen with insect powder when she is set, again at the eighteenth day. A dust bath is always provided which the hen can go to while off the nest.

It is a great mistake to use too many eggs under the hen. It is O.K. late in the summer but is N.G. in February. The hen in turning the eggs pushes them one by one to the outside. The eggs are thus chilled in turn and when the chicks do come, if there are any, they will not

possess that vitality that would have been theirs had they received sufficient heat and not have been chilled in the winter time or in the cold days in spring. I always cover up the eggs with a cloth when the hens are taken off. This cloth is removed when the hen is ready to go back. While corn exclusively is furnished the hen while setting.

There is a big difference in setting hens. The best results will be secured from those hens with the hottest bodies. This can be discovered by placing the hand under the hen. Those that feel the hottest are sure to hatch the most chicks and those chicks are sure to possess the most vitality. A small hen is generally hotter than a larger hen and for a small number of eggs the small hen will invariably give good results. The big hen, being generally loose feathered, is better for taking care of the chicks.

It is well to leave the chicks in the nest with the hen just as long as they will stay there. I always try to set several hens at the same time. The eggs can then be tested out and it is possible to reset one or two of the hens. As the chicks are taken from the nest, I go over them all carefully and cull them. I kill all that are deformed in any way as well as those giving indications of being unsuitable to breed from after they are grown.

### Rations for Winter Layers

H. B. Webster, Perth Co., Ont.

My system of winter feeding hens (100) is as follows: Early in the morning 10 pounds of wheat is fed in heavy litter. An hour later all the skim-milk they will drink is given them. In the middle of the forenoon they get mangels, and clean water with the chill removed. At noon I feed a mash consisting of four quarts of hot, curdled buttermilk, mixed dry with a mixture of equal parts by bulk of bran and ground mixed grains. On mild days when hens are out, less of this is fed.

At four in the afternoon the evening feed is given. This consists of 10 to 12 pounds of mixed grains—oats, barley, wheat, peas, and corn when available. This is fed so it may be easily picked up. This is supplemented with about five pounds of dry mash fed in small boxes attached to the wall. The advantage of feeding this is that it is unpalatable, but the hens will eat it rather than go to roost hungry. If all is not eaten, the hens first stir in the morning—the laying ones—finish it. I would not risk having mash before them all the time.

Clover hay is given occasionally for a change. Broken green bone is given when it can be produced, and coal ashes is supplied in abundance. This method of feeding costs about 35c a day, but when eggs are selling for 35 and 32 cents a dozen, it pays double over, even in January.

Feeding Chickens.—A common mistake prevalent among poultrymen is to feed chickens before they are 36 hours old. The yolk sack of the egg is contained within the young chicken's body, it gradually dissolves and furnishes nourishment for the first 36 or 48 hours. An addition of other food often causes constitutional disorders in the shape of diarrhoea and thus increases the mortality rate.—Miss Mary Yates, Guelph, Ont.

Those weeds, the seed of which is blown and spread by the wind, such as the sow thistle and wild cotton, should be dealt with by legislation. Where farmers do not cut such weeds the law should have inspectors appointed to cut or pull the weeds in grain as well as in pasture fields and charge the expense to the owners of the fields as is done in Manitoba.—Wm. F. Payne, Peterboro Co., Ont.

Photos of farm buildings, farm houses and rural scenes are always welcome for publication.