

# FARM AND DAIRY

## RURAL HOME

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### STRAIN AS A FACTOR IN WINTER EGG PRODUCTION

Remarkable differences exist in individual hens of the same breed. Any hen will not always lay. Breeding records for much. Some interesting results from experiments conducted by Prof.

W. R. Graham in the poultry department of the Ontario Agricultural College.

TWO pens contain 24 hens each. The one pen produced over 500 eggs more than the other this present season before January 1st. The eggs were sold at 48c a dozen. The hens, or perhaps we should say pullets, were all hatched the last of April. All ran together in the same yard, fed on the same feed from the same trough and in every way received the same attention until the laying pens were made up late in September. What made the difference?

#### TWO STRAINS OF SAME BREED

These birds were all Barring Plymouth Rocks. There was a difference in strain. The pullets in one pen were bred from exhibition stock, birds that were nicely shaped, nicely colored—a strain that had been bred for years for the production of nice looking cockerels. The pullets in the other pen were all from stock that for years has been bred to lay. In connection with them it is known how many eggs their mothers, their grand-mothers and their great-grand-mothers laid during 12 months, and it is also known during what part of the year they laid these eggs. The birds referred to are at the Poultry Department of the Ontario Agricultural College. The results secured from them show the remarkable possibilities of the influence of strain, or breeding, on winter egg production.

Professor Graham, head of the Poultry Department at the College, early last month when called on by an editor of Farm and Dairy, explained in detail the breeding of the pullets in these two pens and produced records to show the results that he had obtained. According to the Professor's experience, there are five months—October, November, December, January and February—when eggs are most difficult to produce. These he terms the five winter months. Of the other seven, or the summer months, March, April and May are the three months of best production.

#### THE HIGH STANDARD SET

The individuals of this bred-to-lay strain must measure up to a very high standard. The pullets tested the first year must lay at least 150 eggs each before they are considered at all. The next qualification is for size. They must measure up to a certain standard here. Their eggs are hatched by the natural means and 90 per cent. of the fertile eggs are required to hatch. Ninety per cent. of these, barring accidents, must live to maturity.

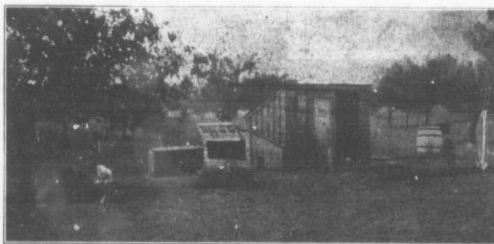
The cockerels from these pullets must obtain a weight of six pounds, or better, when five months old, and be developed ready for breed-

ing at that age. Before these cockerels may be used the laying power of their sisters is ascertained. This is gauged on their performance between the first of October and the first of December or January 1.

#### JEWELS OF RARE LAYING ABILITY

When the birds are subjected to such a test, there are few indeed that will make the grade. Those that do reach it, however, are jewels of rare laying ability, and Professor Graham has records to show that one of these bred-to-lay pullets laid 68 eggs consecutively. Several others each laid 40 eggs consecutively and many of them laid more eggs before the first of January than the average hen will lay during the whole year.

It would be an impracticable proposition for the average farmer to attempt to develop a strain of layers along such a fine and rigid standard as Professor Graham has laid down for his select



Some Profit-Making, Labor-Saving Auxiliaries to the Farm Poultry Plant

Farm poultry if given free range and the young stock handled with the labor saving equipment here shown will give a splendid account of itself and be of little trouble compared to the old-fashioned way of managing the growing chickens. To the right is shown a barrel, the water from which drips constantly into a pan beneath and out of which the chickens drink at will. The supply lasts for days. Next is a colony house, one or more of which every farmer who has poultry should have. Next is a B coop for chickens that have left the hen. Next is an outdoor hopper for feeding grain and dry mash. Plans of this hopper are given elsewhere. To the extreme left is an A coop for hen and brood. Photo taken in the Orchard at the Ontario Agricultural College, Guelph.

laying strain at the College. The standard as given, however, is an ideal worth striving after, and one could require say that a pullet lay at least 40 eggs before Christmas time. Such a pullet (or pullets) must be of a hardy, bred-to-lay strain and be of a quick maturing sort, else she will never lay that many eggs early in the season. The individuals of Professor Graham's bred-to-lay strain are fully six weeks earlier in maturing than are the individuals of his exhibition, or "form-and-feathers," strain.

#### MORE EGGS ON LESS FOOD

An interesting point has developed from the feed records kept by Professor Graham in connection with these two pens. One would naturally expect that the hens that laid the most would

eat the most. This is not so. The pen of pullets which was so far outstripped by the bred-to-lay pullets ate several pounds more of both dry mash and grain.

It should not be taken from the facts as here given that the strain or breed of hens is the only factor in egg production. The attendant, or the one who cares for the flock, is one of the greatest factors. Then, in addition to strain or breed, there must come proper feed and the proper housing. Like any other farm stock, hens before they can give a satisfactory account of themselves must have feed. And the sooner the general farming populace get over the idea that all the feed a hen needs is what she can steal, in addition to the wind and water that comes her way in the natural course of things, the sooner we will get more eggs. After this revolution has been brought about, egg production, through developing of special bred-to-lay strains of the various breeds, in the light of the facts as set forth in this article can still greatly be increased.—C. C. N.

### The Management of Hens

J. T. Doope, Huron Co., Ont.

It is a pretty safe guess that if a hen lays well as a pullet she will also lay well as a year old. More certain is it that if a hen as a pullet does not lay well, she never will. Years ago I learned this fact from observation and hard experience. I then placed myself in a fair way to make my poultry pay.

Since learning this point I have never kept my hens over the second season if I could at all avoid it. The pullets are the money makers from egg production. The year old hens are a close second. After they pass their second season they rarely if ever are worth their keep. Even supposing they are worth keeping, they are but taking the place of the more profitable younger stock, which one might keep with the same expense for feed and labor.

I aim always to make a selection of from six to ten pullets that so far as I can estimate have all laid well. These I mark, and the following year set aside for a breeding pen. From their eggs I hatch my general stock. I find it possible to greatly improve my stock from year to year by managing them in this way, rather than as I used to do, and as so many even yet do, select eggs from the general laying stock. An egg may be an egg, but it will not always hatch a chicken. The chicken that may hatch, if from indifferent stock, will give as indifferent account of itself later on as its owner will have to do for the indifferent manner in which he has managed the breeding end of his poultry.

I find it pays to keep the pullets and the year old hens separate. The feed that is sufficient for hens is not enough for pullets. If fed together the hens become too fat.