

up-to-date methods of housing, feeding, and general care, which may be simple, time saving, and inexpensive? In this way we could increase the average egg yield of our flocks to almost double, and if we can induce a given number of hens to lay, say even fifty per cent. more eggs than at present, it must be a paying proposition, even supposing we obtained a little smaller price, because with proper feeding and good methods, little more outlay would be needed. Then, again, taking our winter production of eggs, would prices have been lower this winter had we produced one hundred per cent. more eggs? How many consumers have had to do without eggs entirely this winter simply because they could not get them sometimes at any price? Greater production, and better quality, with a more even distribution of production, are our urgent needs to-day. The demand is ready-made and increasing more rapidly than we can hope to increase our production.

Let us remember that the question of at what season a hen will lay is as important as how many eggs she will lay; and bearing this in mind, let us keep the breeds that will give us more even distribution with correct methods. Taking the general-purpose American breeds, such as Barred Plymouth Rocks, White Wyandottes, or Rhode Island Reds, early hatching will mean early winter laying and early broodiness, early hatching again, and so on. Then, if we have a flock of pure-bred Single-comb White Leghorns, these will commence to lay well just when the heavier breeds, which lay well in winter, will become broody. If we can keep two breeds, this is an excellent combination, if each breed is kept pure.

If we can only keep one breed, let us keep one of the general-purpose breeds for ordinary farm purposes, by all means. We can still further increase the profits of the farm flock by adopting a just and sound method of marketing, and this the egg-circle system will give us if the organization is carried out on a basis strictly independent of any dealers, but giving all dealers a fair chance to purchase the eggs on a quality basis.

P.E.I.

T. A. BENSON.

Eggs and Meat the Standard for Poultrymen.

Interest in poultry raising seems to be advancing at an almost phenomenal rate. A couple of weeks ago an open meeting was held by the Hamilton (Ont.) Poultry Association at which over one thousand people interested in the feathered tribe gathered to listen to an address by Prof. Graham, of the Ontario Agricultural College. About a week later the same speaker addressed a banquet of poultry fanciers of London, Ont., at which between two and three hundred were present. This was the 30th annual meeting of the London Poultry and Pet Stock Association, and perhaps the most successful in the history of this body of men. Prof. Graham spoke upon the commercial side of the business as being the real serious side of poultry keeping in Canada to-day. It was a fact that fifteen or sixteen years ago special poultry lecturers at Farmers' Institutes were obliged to discuss live stock and general farming topics in order to get an audience. At the present time interest has grown in poultry keeping to such an extent that large numbers of people would turn out to hear addresses on poultry alone, and when the farming special, which toured Ontario last season, was doing its good work, more questions and more interest was manifested in the poultry end of the car than in any of the other departments. Twenty years ago people ate eggs in the spring up till about the 24th of May and commenced again in September, not caring to take the chance of getting stale eggs during the hot summer months. To-day a good egg may be had every day in the year, thanks to the cold storage system, without which, Prof. Graham believed, eggs would still sell for six or seven cents in the summer, and likely very high in winter.

Ten years ago Canada was exporting eggs, while last year over five hundred car loads of this product were imported into this country. Ontario in 1913 was kept busy to feed her own people, whereas a few years previously this Province, being the large producing center of the Dominion, shipped eggs to the Old Country and to the Western Provinces. At the present time Prof. Graham stated that the price of eggs on the Chicago Board of Trade rules the price of eggs in Ontario, and the largest percentage of eggs consumed during last week, he stated, were American eggs. In an agricultural country like Canada and particularly Ontario, he said it was nothing more nor less than a national shame that we cannot produce eggs enough for our own people. Taking the country over, the average price in Canada is the highest of any country in the world, not excepting the United States, where, while it is a fact, that eggs are often higher in Boston than they are in Canada, States like Kansas still produce the six-and-seven-cent-per-dozen eggs in summer, so that if the average

of the United States were balanced up against the average for Canada the price here would be higher than over there. This being so, if the poultry breeder cannot make money at the business now it is not likely that he will ever be able to do so, but the biggest trouble with our poultrymen is, according to Prof. Graham, that they try to grow too many chickens to the square inch. He cited Denmark as an instance of successful poultry production, stating that from driving through the country he did not see one commercial poultry plant, the poultry and eggs being produced on the small farms by the general farmers. Too many of the people in this country forget that the sun will hatch eggs and he took the opportunity of scoring the grocers and some of the produce men, as well as the producers. Eggs exposed in show windows to the hot sun, if they are fertile, are sure to commence incubation.

Up to the present he believed that fancy stock had been a good thing for the country. It has been the means of introducing pure-breds into many flocks which would have otherwise remained mongrel, but at the present time, the real value of the poultry is eggs and meat. The men who are producing the eggs and market poultry care little for fancy feathering and combs. Realizing that he was speaking to an audience of fanciers he pointed out some of the mistakes which this class of poultrymen have made, first among which was they had not paid sufficient attention to the constitution of their birds, which he called the main-spring of the whole works. You might just as well have a timepiece without a main-spring as a chicken with a poor constitution. This applied strongly to the male birds, which to use Prof. Graham's own words, "run the whole show." There are three grades of hens, first the hen that will not lay in winter, second the hen that lays anywhere from one to two dozen eggs in winter and third a winter layer, which produces from three to seven dozen eggs during the winter months.

In view of the fact that the male birds are so important in the flock, as far as winter laying is concerned, of course, it is important that pedigreed males be purchased to head the flocks. In this connection Prof. Graham pointed out that no pedigreed bird, if the work had been done accurately, could be sold at less than \$5.00. From their work at Guelph he estimated that it costs from two to three dollars each to work out the pedigree for every chicken raised.

It would, indeed, be a valuable asset to the poultryman if he could tell at a glance when his chickens are five or six weeks old, whether or not when mature, they are going to be good layers. Prof. Graham did not claim to be able to do this, but from his work at Guelph an indicator has suggested itself to him. He did not state this indicator was an established proof but as a warning to poultrymen present he said that from observation he had noticed that the slow-feathering bird was in a predominating percentage of cases a poor layer, and that the bird which feathered up quickly was usually a good winter layer. Winter layers almost invariably mature early and feather early, according to his work as far as it has gone. At Guelph, observations the past winter have shown that no slow-feathering chicken has produced two dozen of eggs since November the first.

The commercial end of the business is the department which needs most attention. A few years ago Toronto was a very easy market, to-day it is one of the most critical markets in the world, demanding eggs strictly new laid and put up in cartons of a dozen eggs each. Times are changing in the poultry business, and the poultryman must be alert and ready to grasp every opportunity to keep abreast of the changing conditions.

It was Prof. Graham's opinion that the hatching power of eggs had decreased, and this particular condition he stated was hereditary. He advised his hearers to set eggs from hens whose eggs hatch well wherever possible, and his experience had shown that the strongest and hardiest chickens almost invariably came from the mating of cockerels with pullets. This would seem contrary to the general rules of stock breeding, but, nevertheless, these findings are as they have worked out at the O. A. C. Of course, it must be remembered that the cockerels and pullets should be well matured when mated. Many poultrymen believe that the hen controls the size of the offspring. This, according to the speaker's experience, had not been the case, the size of the chicken being a blend of character between the male and female birds. The male, however, has more influence on color, especially if he be a Barred Rock.

The poultry business is one which requires some labor. One man would be kept extremely busy looking after seventy flocks of ten birds each, and he could feed and care for twenty flocks of one hundred birds each easier than the seventy flocks of ten birds each. The larger number of flocks the greater the work.

He urged the fanciers to take cognizance of the commercial conditions of the poultry and egg

trade, at the present time, not forgetting the fact that the general public requires a hen that lays and a hen that will produce poultry which may be sold at an early age on the market. The farms of the country must ever be the mainstay of the poultry business, and people keeping poultry under these conditions care very little for the fancy points of the fowl as long as they get plenty of eggs and good, heavy, plump chickens for the market.

THE APIARY.

Marketing Honey.

Although Eastern Ontario suffered a famine in the way of honey production during the season of 1913, Western Ontario had an abundant crop, and even at the time of the District Beekeepers' Convention in London on Feb. 12 and 13, some of this crop was even yet unsold. Morley Pettit, Provincial Apiarist, Guelph, went very thoroughly into the problem of marketing honey and declared that 15c. per pound was not too much to pay as a retail price for honey.

Honey is not being used as liberally on the consumer's table as it should be and in order to introduce it more generally to the consuming public Mr. Pettit advised—first, advertising by the producer, even putting out a sign on the gate-post labelled "Honey for Sale." This would draw many to invest in a few pails of this honey, who would not think of doing so had it not been brought to their attention. Going farther from home, Mr. Pettit advised a house to house canvass in order to bring the matter of honey before the people. Many people use only a small quantity and mention was made of some who purchased only one or two five-pound pails, when putting in their winter stock. In opposition to this, many who know and appreciate the value of honey use as much as 300 pounds in the run of a year, but the profits to the retail grocer are so small that he will not boost or encourage his customers to use honey as it is now put up. Jams, marmalades, canned fruits and other products of the factories allow him a larger profit and it is that which he will prefer to sell first.

Perhaps the City of Guelph, owing to some local circumstances, is the largest user of honey per capita of any town or city in Canada, yet the consumption there amounts to only two pounds of honey per capita yearly, and it seems peculiar that if some butter manufacturers could afford to advertise their butter, which is a staple article of food, that producers of honey could well afford to pronounce on their product, which is more of a luxury and a delicacy on the table. It was also advocated that magazines and papers be made use of in the getting of this product before the people.

The West has become a great consuming country for the honey produced in Ontario, but all people do not have the same facilities of placing their produce there. Some have sold it through relatives, while there are others who do not know people in the West. Mr. Pettit advised a co-operative movement in this respect and more co-operation on the part of the members of the Beekeepers' Association in returning reports to the Executive that they might estimate the honey production in time to decide upon a fair price for the marketing season.

Another advantage of a co-operative movement would be that the supply could be more equally divided in order to meet the demand, and the consumers, at the time of a shortage, could be fairly well supplied so that they would not have their attention diverted to other lines of delicacies and thus be weaned from the consumption of honey.

The Use of Steam in the Workshop.

The paper contributed to the District Beekeepers' Convention at London by Denis Nolan, of Newton Robinson, conveys the extreme advantage of steam in connection with the workshop. There are many operations about the honey workshop that can be facilitated by the use of steam. There is wax to liquify, there are the cappings to be melted, and honey and wax to be separated therefrom. There is sugar syrup to be prepared, and numerous other little operations such as melting combs, in the case of foul brood and clarifying the frames and hives which can be done very effectively with steam. Mr. Nolan makes use of what is ordinarily called a feed cooker by the farmer. It is so installed that the steam can be made use of for all these different operations, and some of those present at the meeting endorsed very heartily the system of using steam in connection with these various operations.