

deed, and the storages then existing were in the hands of private individuals, and served largely as traps in which the private apple-dealer could catch his game and grow rich upon the quarry. To-day there are some scores of warehouses owned by the orchardists themselves, and not built for the purpose of earning dividends, but for the purpose of improving the fruit industry.

One real subject for congratulation is that the apples furnished by the members of the co-operative associations are worth 75 per cent. more than they were under individual management, and that the co-operative organization renders it possible for them to get the increased price for the increased value which they have added to their product.

Another great success has been scored in using the associations as agents for buying supplies. And distributive co-operation should make some headway in Canada, as it has done in Denmark and Great Britain.

Speaking of central organizations, Mr. McNeil thought the California Fruit Exchange might well serve as a model for fruit-growers in Canada. Last year their gross receipts totalled over \$20,000,000, not one cent of which remained uncollected. A central association is of great use in developing new markets, and, to do this, should be a selling association. This selling association would form a medium through which the smaller associations could speak as one, and would give an excellent opportunity to deal with English co-operative associations.

If we can but secure proper legislation for our associations on a truly co-operative plan, it is quite possible that the apple-growers' associations may be allowed affiliation, through the International Association, with the British Co-operative Wholesale Society. If so, is it possible that our co-operative associations would find their whole output absorbed by the 1,500 co-operative associations of Great Britain, to whom we could ship directly, with no deductions for middlemen's charges, dockage, or auction fees?

It is absolutely essential to accomplish the greatest success that strong central selling associations be formed in each Province, exporting fruit, and that these Provincial associations should co-ordinate either through the managers or through a Dominion organization representing all associations. Co-operative legislation is urgently needed.

The subject of co-operation is fundamental. It offers a solution to nine-tenths of fruit-growers' practical problems: Varieties, spraying, pruning, orchard culture, and marketing. Rapid progress is impossible, except within co-operative lines.

POULTRY.

Taking It Easy in Winter.

Editor "The Farmer's Advocate":

I was much interested in "Beginner's" letter regarding winter-egg production. It is a subject we have considered quite seriously of late years, since the hen has taken such a prominent place in profitable farming. We find that a hen to the acre is about all that can be profitably attended to, along with the other work, and, if winter eggs are not expected, a few minutes each day will feed them the year round; for, in summer, when they have full run, they find their own variety of food, which has kept "A Farmer's Wife" so busy trying to supply, to the neglect of her other work, and only getting a few eggs.

I think some kinds of hens are better winter layers than others. I know, one winter, when we had some Rhode Island Red and Dorking pullets, we had lots of eggs all winter, with no extra attention, but the Rhode Island Reds wanted to sit all the next summer. We have been getting a few eggs all winter. In fact, our hens never entirely stop laying the year round. We feed them mixed grain scattered in chaff, morning and evening. This gives the necessary exercise. A warm mash at noon, plenty of raw vegetables, and good fresh water twice daily. But we have about decided that it does not pay us here to produce winter eggs in the coldest months, as we cannot get in touch with the markets in the large cities. We get only about 5 cents per dozen more for winter eggs than the average summer price, and we find that it costs about twice as much to produce them as in summer, when the hens have unlimited range on a grass meadow, with its bountiful supply of insect life. If all the farmers on the Island who produce summer eggs were producing them in winter, the prices would be lower than in summer, on account of our isolation, which cuts us off from outside markets, with such a perishable product, during the cold weather.

I think it is better to be satisfied with a few eggs for home use during the winter months, and let the hens get good and ready and pile up energy for the spring. Then, when they get started, about March 1st, our experience has been that they will lay well all summer and on into the late fall, and you will find it hard to get them stopped so

that you can get the old ones killed off. For we women all know how hard it is to sacrifice the laying hen. On our farm we keep about a hundred hens, and, all things considered, especially labor, we find poultry the best paying branch of mixed farming.

"POULTRY FOR PROFIT."

Hints for the Amateur.

Editor "The Farmer's Advocate":

It is not an easy matter to determine whether you have made a profit on your hens or not, unless strict accounts are kept, and, in order to find out exactly where you stand, you must not only charge the hens up with all the foods given them, but also with the interest on the capital invested in them. Then you must give them credit for all sales, as well as for all eggs and poultry used in the family, and the eggs used for incubating purposes. Now, your labor may or may not be taken into consideration, depending whether you are in the poultry business for a living or operating it as a sideline in connection with farming.

It is a mooted question whether to begin with eggs or stock. If you have already decided in favor of stock, you will no doubt have the fowl on hand ready for spring operation. Half a dozen good hens purchased last fall, and mated to a vigorous young cockerel, will give you a good start, especially if you are a beginner. It is a mistake to rush headlong into the poultry business, with the one idea "to make money." Unless you have had previous experience, you will find it to be a snare and a delusion. Start with a few good fowl, and gradually increase your flock as your knowledge of them increases.

If you have not already purchased your stock, you must expect to pay more for them, as they have been practically wintered, and their owner can tell better where they stand as winter-egg producers. If you decide to begin with eggs, it will mean that you will have to wait a whole year before you can raise more than what you get from these eggs, and, unless you get ten or twelve dozen eggs, your number of chickens is not likely to be large.

The winter season is the most profitable laying season, and once you are established as a poultryman or woman, aim to make it more profitable, and do not feed the non-producers.

There are always a number of drones in the flock, and it is not fair to put the whole flock down as a loss, when some of them have laid well and helped to support a lot of drones. The only definite way of getting at the matter is to use trap nests. It may even be necessary to dispose of some of your pullets, for very often a most-promising-looking pullet will prove a complete failure as an egg-producer. In my first flock I had one pullet that was in every respect a perfect specimen, according to the American standard. I kept her two seasons, but never to my knowledge did she lay an egg. Needless to say, she went to the block when I began in earnest to weed out the drones. The only way to work into a profitable flock is to find the boarders, and dispose of them. When you are satisfied that only egg-producers remain, go to work to make them comfortable and take care of them. One important item is not to have the flocks too large. The rule laid down by poultry experts is ten square feet for each hen, but in my experience I find that six square feet per hen gives just as good results, if you divide your stock into flocks of ten to fifteen hens. If you cannot conveniently do this, and have a flock of forty or over, then you must allow more space per hen. As a rule, large flocks are liable not to be properly fed, and, if at all possible, it is better to keep them in small flocks.

It is always a problem for the beginner to settle on a breed of poultry. Every breed has its faults, some more than others, but be sure that you buy from responsible and well-known breeders, such as you can depend on to give you the right kind of stock. There are many such breeders in the country, but there is a good deal of difference in the strains of the different stock in the country, and it is well to investigate thoroughly before you make a purchase.

The selection of the breed should depend much upon what branch of the industry you intend to follow, but the principal thing to look out for, in my estimation, is the laying quality. No matter what breed or strain you have, if you have the laying quality highly developed, you have a good thing.

Leghorns and Minorcas are generally supposed to be the heaviest egg-producers, but in our northern climate have not proved as good winter layers as some of their heavier sisters. Given mild weather and proper care, they undoubtedly will outdistance almost any other breed, and do all that is claimed for them. The heavy Asiatic breeds, like the Brahma and Cochins, should be shunned by the novice, for they are almost sure to prove disappointing, unless given unlimited care and attention. The well-known Plymouth Rocks are, perhaps, the best understood and easiest

to manage. The White variety are a trifle more inclined to run to flesh, and consequently require more careful feeding than the barred; they are also more tender when young than the Barred. The Buff Rocks have met with universal favor for an all-round fowl, as have also the White Wyandottes. The Rhode Island Reds are fast coming to the fore, as their remarkable qualities for both eggs and meat hold them up, and are likely to make them one of our leading varieties as an all-round business fowl.

An important item in building up a poultry business is your location, for, as in every other industrial branch, there are good and bad localities. Avoid low, wet, heavy soils, as this kind of soil invariably breeds trouble and failure. Select a gravelly or sandy soil, if possible, as it keeps cleaner than clay soils. For buildings, the main thing is to have them strong, fairly comfortable, well lighted and well ventilated, without draughts. Low, shed-like structures are a poor investment, for, although they may do in mild, dry weather, yet, when cold, wet windy weather prevails they prove a failure. A henhouse, properly constructed both inside and out, is almost half the battle. Healthy fowl are the main thing, and you cannot have this with poorly-constructed houses. The inside arrangements must be handy, so that cleaning out droppings, renovating the nests, etc., can be done quickly and easily. Before building, see a number of henhouses that have proved satisfactory in your locality, and improve on these, if possible.

Two other important points in poultry-raising are care and management, and you cannot succeed if careless on these points. A good location, as to sanitary surroundings, suitable buildings, good markets (if you can choose your locality), regular systematic care and feeding, insures good returns for the time and money spent.

Carleton Co., Ont. A SUBSCRIBER.

Another View of the Winter Egg Production.

Editor "The Farmer's Advocate":

I have just been reading about the "hen" question in your paper, written by "A Beginner," in the issue of February 8th. He says it does not pay to make hens lay in winter, but I think it does.

If you want hens to lay in winter, you have to take good care of them, that is certain. I will say, in the beginning, that, if you have no love or liking for the work, don't attempt it. I don't think you need to take extra care of your hens, because they have to have a certain amount of care, anyway. Farmers generally go to town about twice a month, and, if it happens to be bad roads or weather, you can "lay in" a good stock of oyster-shells and other grits. People will say this all takes money, but this little money now means greater money later. You will get home from town about half-past three, get off your duds, get warmed, and away down to the hens and cows. You can take down a few oyster-shells and some warm water; give them some grain mixed with chaff. I would rather not give the hens hot feed at night, if they get hot water. Your hens will never do well if you have geese or ducks in with them. I learnt that by experience.

Next morning you get up about six, get breakfast over, and away down to the stable to milk your cows; the cows do not take long, generally; I have three to milk; the men will separate, and away you go to the hens. I think the henhouse is generally cleaned out when you go. Put a little chaff on the feeding floor, and some grain, mixed. When they have that eaten, bring them their hot feed. And what about drink? If you have any milk left over, give them that warm. Try to keep the hens in a dust-bath of chaff, hay seeds and ashes (coal ashes preferred), and some sand.

At noon you could bring them hot water, more grain, and, if the afternoon is fine, let them have a run where the sun shines. For grain feeding, barley, wheat and buckwheat are best. Peas make them fat, and they don't like oats.

When you go down to feed them at night, you will bring back from 30 to 40 eggs from sixty hens. I don't think it is necessary to walk through snowdrifts; they should be shovelled, for, as far as I know, men don't like to walk through them.

The cinders from coal ashes are good for gnats. Now, when you get your hens laying, you can get a new muff, and save making over your old one.

If you have a way of your own that proves satisfactory, don't attempt somebody else's plans. If you don't like feeding hens, etc., you ought to try pigs, or something like that.

A neighbor woman of ours was up the other day. She has given up the hens for a bad job, and is starting raising pigs. She says the men don't know how to feed pigs. Well, this is my version of it. "FORTUNE SEEKER."

Wellington Co., Ont.