

this very point. Before purchasing bees *always* decide upon the system of management and hive which you will use, and in your selection of these use the *utmost* care, for in proportion as you fail in making a wise choice in these will you ever after be handicapped thereby. When purchasing bees to start into bee-keeping they are dear as a gift if they are domiciled in an impractical hive unless they are afterwards transferred. If you cannot buy bees in the hive of your choice, better far obtain them and then send them to some bee-keeper and have him put swarms into them for you. For all-round bees I would recommend the pure Italians, especially for the beginner. However, do not pay too much for them when buying so long as a good Italian queen can be bought for one dollar and introduced to any colony of bees, which will be Italianized in a few weeks thereafter. As you gain experience you will find, too, that the Italians do not possess all the points of excellence, but that the native black bees rather excel them as comb builders and will finish up section honey somewhat nicer and whiter than the Italians.

POULTRY.

A New Canadian Egg-Exporting Industry.

There has recently been established in London, Ont., an egg packing and exporting house, being a branch of the firm of Thos. Robinson, Sons & Co., London and Hartlepool, England—perhaps the largest egg-importing firm in Great Britain. The Company's London (Eng.) representative, Mr. T. Scott, has had charge of constructing and fitting up the Ontario branch and arranging for a supply of eggs for the coming season. After Mr. Scott's departure to England, which will be in a few weeks, the oversight of the work here will be under the management of Mr. Benj. Higgins, of London, Ont., who has for many years conducted a successful business in butter and eggs in that city.

The cement vat capacity for pickling eggs for next winter's trade is 125,000 dozens, which Mr. Scott informed us would be secured before May 1st. The pickle is prepared by adding lime to brine. Once the vats are filled to the desired capacity, weekly shipments of fresh eggs will commence to their English headquarters. The supply of eggs is to be derived from within a radius of from 60 to 80 miles of London. When the eggs are received they are paid for at market price, and sorted over. They must be fresh, of good size (eggs sell by weight in England), and those of brown color are preferred. Lots of uniformly large size and rich color command a price above the ruling market figure, while those of inferior size and appearance are not desired at any price. At this season the eggs as they arrive at the packing house are rapped together to determine their soundness of shell, and those that are cracked are sold locally along with those of inferior size for five cents per dozen. Later in the season they will all be candled. Mr. Scott remarked that there is no profit in sending small eggs to England, because European countries place them on the London market at 7 cents per dozen. Mr. Scott was very emphatic when referring to the importance of quality in eggs to be exported to England. He is confident that if only good fresh eggs of large size and rich color are sent to the English people they will take all we can send them at good prices. Choice French eggs command the highest price in England, and if we will, as we can, supply eggs of equal value, we will create a demand that will not be readily satisfied. Mr. Scott likened the egg trade to the cheese trade. English people recognize and appreciate a good thing and are willing to pay for it, while inferior goods will not bring their value, because there is so much competition in those lines. Mr. Scott heartily endorsed the principles laid down by Mr. J. E. Meyer, in the *FARMER'S ADVOCATE* for April 15th, in favor of infertile eggs, but said it was beyond their reach to obtain any quantity of them. With regard to the new system of Government cold storage, Mr. Scott considers it will only be of service to egg shippers in the hot months of July and August. He is opposed to cold storing eggs except when absolutely necessary, because dealers are very much inclined to hold for higher prices while a slow but sure deterioration is continually going on. Another objection to cold storing eggs is that when removed into warmer air they sweat and soon go off flavor as well as look mottled and stale. When eggs are taken from cold storage they should be gradually warmed up to the outside temperature to prevent the accumulation of moisture on their shells.

The points which we should take from the above reported interview are: 1st. Only such hens should be kept as will lay large eggs, preferably of brown color. 2. Eggs should be gathered fresh every day, and they are altogether better when not fertilized. These points can be observed in the practice on every farm with greater profit than the usual indifferent methods.

Wood Floors Not in Favor.

The *Farming World*, Edinburgh, Scotland, in reproducing Capt. A. W. Young's treatise on poultry keeping in the *FARMER'S ADVOCATE* of March 15, 1897, refers to the Captain as an "American gentleman," forgetting that the term "American" is by many applied to citizens of the United States of America, while Capt. Young is a Canadian, and Canada, we might observe, covers an area of North

America just about equal to the Republic. The point we desire to bring out, however, is the opinion that the *Farming World* expresses regarding the Captain's leaning towards wood floors:

"Board floors are not an unmixed blessing for poultry houses, as, if great care is not taken, rats gain a lodgment underneath, and then woe betide young chickens. We take this part of the Captain's interesting communication with a grain of salt, as it is only a proposal. If the location is a dry one, and the earth floor kept covered with short litter or peat moss, as it should be, colds from that source should be unknown. We are decidedly in favor of a floor formed of a good layer of broken stones, covered with a mixture of lime and ashes, well rammed down, and then covered with a layer of dry, sandy soil, this also to be beaten as fine as possible, receiving a final dusting of lime and sulphur. Such a floor is a great preventive against fleas, whilst wood encourages them."

How Much to Feed 30 Hens.

BY M. MAW, WINNIPEG.

A subscriber asks the quantity of food by bulk and by weight necessary for a pen of 30 hens. It is a hard question to answer, not knowing the age and variety, but as I am continually asked similar questions, I will write what I consider the best plan to secure a supply of eggs during the winter months, which, I presume, is the object of the enquiry. The first step is to decide the variety of fowls you think will best answer the purpose. I am often asked which is the best variety to keep. I have my preference, but so have others; and you will find all the useful varieties have points of excellence, and if properly managed will well repay the trouble and expense bestowed on them. Which-ever variety you decide to keep, see and get the best. It costs a little more at the start, and many object to pay the fancy prices asked by breeders for fowls that are only worth market price when killed, but recollect you are laying the foundation of your future stock, and if by getting a fine cockerel or trio you can add one pound weight or a few dozens of eggs to each of their produce, you are getting well repaid for your outlay. In commencing your flock, keep only one variety, and whether it is to be pure-bred or grade, try and get them uniform in size and color. Hatch chickens early in the spring, and give them the best attention, feeding early and often. Force them along. These early pullets are the ones that will lay during winter, and when you have once got into the system of early hatching, you will find it easy work. The early-hatched pullets will be the early sitters the following spring, and will lay well during the summer, molt early in the fall, and as year-olds do their share towards filling the egg basket. They will, as a rule, continue to be your best hens; but it is not advisable to keep hens over two years; they usually incline to fat and are hard to keep in laying condition. In feeding, you must use judgment, and study the flock. The first step will be to separate the pullets from the old hens. Give them good, clean, comfortable quarters, plenty of light from the south and east, moderately warm, and plenty of litter to scratch in. A large, low box filled with ashes or dry sand is necessary to enable the fowls to keep clean. It answers the same purpose that soap and water does to us. The morning feed should be given as early as possible. It should be prepared the previous night, of table scraps, potatoes and other vegetables boiled till perfectly tender, then thickened with shorts, bran or any other meal you may have handy; covered over and left to steam during the night, it will be in good shape to feed early in the morning. Feed on boards or small troughs. Give what the hens will eat up clean and quickly. Never leave any of this food on the floor; it easily sours, and is then very offensive to the fowls. If you find your fowls have loose droppings, discontinue for a few days, or feed alternately scorched grain (oats preferred), always being careful not to overfeed. During the morning throw a few handfuls of small grain in the litter and keep the hens scratching. Exercise is very necessary; it causes a circulation of the blood and promotes health. I always hang a cabbage for my fowls to pick at. A swede turnip cut in two and thrown on the ground is equally good. In the afternoon, just before roosting time, give a full feed of grain. The nights are long in winter and they require good grain for this feed; during the long hours the process of grinding this food goes steadily along. A great necessity is a good supply of sharp grit. The gravel in this country is generally round and needs breaking to get sharp edges. A great many people overlook the supply of grit. I have had fowls sent to me to ascertain the cause of death, and on opening the gizzard not one particle of grit was present. Now, it is impossible for a hen to properly digest her food without grit. It answers the same purpose as our teeth, and if neglected will result in numerous diseases, and there will be no eggs. Another necessity is a plentiful supply of good clean water. If your house is very cold warm the water, they will get what is necessary before it freezes up. To insure a good supply of eggs follow these instructions; if possible give a little green cut bone every other day. Hens during the summer are continually getting grubs, flies, etc., and need something similar during the winter months. Bone mills are so cheap that it is foolish to be without one. A good mill that would answer the requirements of 30 to 50 fowls can be purchased in Winnipeg for \$8.00,

and will pay for itself in the extra food it supplies that could not be utilized any other way. It is impossible to give exact weights and quantities in feeding. Study nature. During the summer the hen is continually on the move, getting a grain now and again, never overloading the crop. If we can so arrange during the winter months to keep them in the same conditions, they will keep healthy and lay plenty of eggs. Be careful not to overfeed, more failures are caused by overfeeding than by underfeeding. When you see the hens all huddled up in a bunch, miss a feed or two, and if they come running up when you open the door catch a few of them and feel their crops. I have had hens that always were ready for feed, and on handling found their crops ready to burst. In every flock of pullets or hens you will find some that will eat quickly and get more than their share. When I find a pullet doing this I put it in with the old hens for a few days. Do not be continually running out with dainties after they commence laying. It is a sure way to stop them. Feed good plain food in moderation. Make them work, and if you have no eggs it will be because your chickens are too late hatched or hens too old.

How to Make Hens Pay.

- 1.—How many hens do you consider it wise to keep on the average 100-acre farm, and to what age?
- 2.—With a view to eggs, table birds or both, what breeds or crosses would you recommend as likely to give most general satisfaction?
- 3.—What plans would you suggest for improving an ordinary farm flock of mixed fowls, such as selection or "weeding out," new breeding birds, setting of eggs, etc.?
- 4.—What period of the year is it advisable to retain male birds with the flock? How about numbers together?
- 5.—By what means do you secure the best eggs for hatching?
- 6.—What treatment would you suggest for a pen of breeding hens (from which the eggs are to be set) during the latter part of winter and spring?
- 7.—What sort of a house do you recommend with regard to (a) size, (b) location, (c) warmth, (d) sunlight, (e) ventilation, (f) dust bath, and (g) watering, and to what extent should fowls run out in winter?
- 8.—How do you manage to keep hens free from lice and disease?
- 9.—What foods or mixtures do you recommend for (a) egg production, (b) fattening, (c) how often would you feed per day, and (d) what value do you place on green bones, and vegetables, and sunflower seed?
- 10.—How many eggs per year should a good farm bird lay to be profitable, and at what age should broilers be sold?
- 11.—Should turkeys, ducks or geese be allowed to run in the same house with hens; if not, why?
- 12.—What is your idea of keeping turkeys, ducks or geese on the average farm, and how do they compare with hens as to profit, etc.?

Cannot Raise Table Fowls with Profit.

To the Editor *FARMER'S ADVOCATE*:

SIR,—I think you deserve credit for the series of questions that you are addressing to the stock breeders and others. By poultry raisers I mean those not situated on a town lot dubbed a farm, but those who are raising them for eggs and meat to sell for food on the open market. I may preface my replies by saying I raise, perhaps, as many fowls and eggs for market purposes as any other person in vicinity of Winnipeg.

1.—Unless tastes run decidedly that way, 50 or 60 would be ample to supply home requirement, and under present conditions of summer market for eggs and fall market for chickens, I very much doubt if the average flock of hens pays expenses.

2.—With a view to eggs alone, the Mediterranean class is indisputably the best, but they require extra care to get their eggs when most wanted, that is midwinter. Perhaps the best birds I ever owned for winter eggs were a cross of White Leghorn hens and Light Brahma rooster. I did not get as many eggs from the cross as I did from the White Leghorns, but I got a large proportion of them when eggs were worth 30 to 35 cents a dozen, whereas the Leghorns fairly rained eggs when they were worth 10 cents a dozen. I have given up trying to raise birds for table purposes, could not do it at ruling price.

3.—There is no use to advise farmers to enclose their best hens with pure-bred rooster. By all means kill scrub roosters, and introduce pure blood by means of males of desired breed; change birds every year, but always using same breed.

4.—Only during a few months in spring when eggs are required for hatching. They are a nuisance at all other times, worrying hens to no purpose and to positive injury of the eggs.

5.—I enclose a few, say a dozen, of my best mature layers with desired male. If these do not produce eggs enough make up another pen.

6.—The same as all others, but perhaps increase meat ration slightly.

7.—I have not got and have not seen the house that fills the bill satisfactorily. Water at hand *all* the time. I do not allow mine to run out at all after cold weather comes.

8.—By using Persian insect powder freely on nests and birds, and coal oil on roost and corners of nest boxes and any other place that lice are apt to congregate in.

9.—This is a question not to be dismissed in a line or two, but will simply say soft feed in the morning (steamed over night), one kind of grain at noon, another at night—the last and only full meal of the day.

10.—A good hen should lay at least 150 eggs per year; more, however, lay 90 than reach 150. I consider on an average it takes 100 eggs per year to feed and care for a hen. Broilers should be sold at 12 weeks old at latest.

I was at Manitoba Poultry Show, and did my share of admiring the fine feathers, legs, wattles,