

September 9, gave the estimated apple crop in the United States as 223,000,000 bushels, and the commercial crop at 33,900,000 barrels, which is an increase of 3,666,000 barrels over the July estimate. It is expected that the State of Washington will have an apple crop located about as follows: Walla Walla district, 326 cars; Spokane territory, 1,500 cars; Benton, Franklin and Adams Counties, 726 cars; Wenatchee district, 9,553 cars; Yakima County, 8,000 cars; other districts, 175 cars. Oregon will have 2,500 cars of apples, and Idaho 3,500 cars. One correspondent estimated the combined crops of Washington, Oregon and Idaho at 24,000 cars, as against 30,000 shipped last year. Illinois will have a crop of winter varieties equal to 30 per cent. of a crop; Ohio will probably harvest in excess of 1,200,000 barrels; Virginia, something over 1,600,000 barrels; and New York, will have at least four times as many apples as last year, but in one of the largest producing sections much of the crop will not pass as "A" Grade, while there is some doubt if the total quantity barrelled will exceed 150 per cent. of last year. If cars can be obtained a considerable portion of the crop will probably be shipped in bulk to large cities. The Delaware crop is estimated at nearly 100,000 barrels, or twice as much as last year. Massachusetts may have 335,000 barrels, or a crop equal to last year, while the Maryland crop will run 40 per cent. in excess of 1919.

With regard to prices, one of the largest shippers in British Columbia reports that there has been more demand for export apples than has been experienced for quite a long time, and that many sales have been made at good prices. The price situation in Ontario shows considerable variation. One association reports having sold their output at \$5 per barrel, tree run, in barrels, f. o. b. shipping point. Some orchards in the Georgian Bay district have been sold at a price which will cost \$5 to \$6 per barrel, packed, for No. 1's and 2's, and \$3 for No. 3's and domestic. East of Toronto a number of orchards have been sold at \$2.50 or \$3 per barrel, on the tree. Packers are taking contracts to pick and pack at \$1 per barrel. Several sales have been made in Nova Scotia at from \$3 to \$3.75, picked down in barrels, price including the package.

The following notes contained in the report should be carefully read by shippers:

"Owing to the shortage of cars in general, and which in some districts has reached a very acute stage, we urge shippers to load and release cars promptly and load to capacity having due regard to the safe carrying of the fruit. The various railways are uniting in an effort to move the freight cars with as little inconvenience as possible to growers and shippers, and co-operation with railroads is absolutely necessary.

"On and after August 14 the following refrigerator and ordinary shortage rates are effective from Canadian ports to United Kingdom ports: Apples and pears in barrels under refrigerator \$3. This is a reduction of \$1 per barrel from last season. Box apples 85 cents and pears 90 cents. Apples in ordinary storage \$2.50 per barrel and in boxes 70 cents. Steamship companies are this season not insisting upon the prepayment of ocean freight charges. This is optional."

POULTRY.

Fall Work With the Flock.

EDITOR "THE FARMER'S ADVOCATE":

The summer is over and the growing stock nearly matured. There is nothing that grows so quickly as a chick, and it is only a short time ago that they were little fellows just able to walk around and now they are large, husky birds. With the birds matured, new responsibilities arise for the poultry keeper, for these birds must have especially good care if they are to make good as layers this coming winter when egg prices are at their highest.

This is the time of year when the poultry houses should have a thorough cleaning. First remove the old birds that are to make room for the pullets, and then go at the cleaning. Make a business of it and have the work done in such a way that lice will be exterminated, filth removed and every trace of former occupancy removed. When this is accomplished your house will be a suitable place for the pullets. Otherwise a dirty house would be a drawback to the young birds. After having removed the old birds remove every nest, box, water fount and hopper; in fact, everything that is removable. Give these a thorough cleaning outside. Then go at the inside of the house. Brush down the cobwebs and dust; clean everything off the floor and so have everything ready to begin using the sprayer. The entire inside should be sprayed with some good disinfecting solution which is advertised for this purpose. Don't make half a job of it, but give it a thorough spraying all over, and when this is completed give the house a few days to air and dry before placing the pullets in it.

If the pullets have been accustomed to sleeping on the floor of their coop they will likely not take to the roosts at first. To teach them to roost go in after they have settled for the night and quietly place them on the roosts. Some may fly down at first, but after doing this a few nights they will become accustomed to roosting, and will give no further trouble. Be sure and give them ample roosting space, as crowding will make them sweat, and this is injurious.

If you are in need of any birds for the coming breeding season now will be a good time to purchase them. You may be able to get them later on, but they will cost more and you will not have the choice from as many birds. Most breeders will sell cheaper early in

the season, as it will give them more room for the pullets. This will save you money even if you do not need the male for a few months, and the cost of keeping him is small as compared with paying two or three dollars more for him next spring.

Again, if it is yearling hens or pullets you wish to buy, you will have the choice of the flock now, whereas if you wait until later you will pay more money and get what is left. Better get busy early and get what you want, as it is the early bird that catches the worm.

The selection of your own birds is very important. Only the best of the young stock should be kept for breeding purposes, and the poorer ones fattened and sold for table purposes. As feed is high in price it will pay to keep only the best birds. Careful selection of the males will mean a better flock for another year, so go about this work very carefully.

Do the fall work on the poultry farm at the proper time and do not wait till it is too late and then be sorry you did not do this or that. Your poultry work must be done on time if success is to be yours.

Middlesex Co., Ont.

W. A. S.

Dry Mash Feeding.

EDITOR "THE FARMER'S ADVOCATE":

I would like to pass on to your many readers a method of feeding poultry which I have adopted this season and which has not only given good results, but has saved me an enormous amount of work. I refer to the system of feeding known as "Dry mash feeding," and I question if there is any other labor-saving device which can save the attendant of poultry so much as this. I give, therefore, an outline of my own method of applying it.

First, I should say that I am what is known in England as a small-holder, that is to say, I keep a few cows, pigs and hens on twenty to thirty acres. I really started in the poultry business, and have since extended my operations; but I have a pretty fair flock of hens, do a lot of incubating, etc., and what with pig feeding, milking, churning, and so on, have my hands pretty well filled. Until twelve months ago I always fed wet mash once a day, at night, to my hens and raised my chicks also on a combination of dry grain and wet mash. I now feed everything dry, both to hens and chickens, for the work was getting too much; and this is how I do it.

In every house (I have a number, but the same thing applies when one has only one) I have a hopper hung on the wall, raised from the floor so that the hens cannot scratch dirt into it. This hopper contains a mixture of ground grains, etc., the composition of which varies according to the season of the year, but which for laying hens may be taken roughly as follows: Middlings, 3 parts; bran, 3 parts; cornmeal, 1 part; bean meal, 1 part; meat or fish meal, ½ part; and an inferior grade of oatmeal, 2 parts.

As long as plenty of water is at hand, I have found that hens fed with two ounces per head of grain once a day and left to pick whatever else they want from these hoppers will do very well and always be thrifty. I have killed off a number of my birds this last month and have found them not as fat as when fed on the wet feed, for hens will not gorge on dry feed. In addition, I have lost no birds through apoplexy or liver disease, as occasionally happened under the old system, and upon examination of the offal have found all the internal organs in a particularly healthy-looking condition.

I am sure that the adoption of a method similar to this would relieve many a harassed poultry keeper. I have very keen recollections of my experiences on many Canadian farms, and am convinced that the method as above described is absolutely sound. It has been indeed such a boon and blessing to me that I have for the past two months extended it to my young chickens, with most gratifying results, modifying the system to suit the requirements of the tiny ones.

So successful has it been that I have put on several pounds in weight through not having to worry any further about my feathered tribe, and, if you would like me to explain just how I have managed it, I will be only too pleased to do so for the benefit of others similarly placed.

Cheshire, Eng.

W. J. FLETCHER.

THE APIARY

Wintering Bees.

EDITOR "THE FARMER'S ADVOCATE":

Whether to winter in the cellar or outside is a question that every beekeeper has to settle. Where the winter is long and steadily cold, the cellar is usually more satisfactory, but outside wintering succeeds in some moderately cold places if proper precautions are taken. At the Central Experimental Farm, Ottawa, the two methods have been compared during the last five years. Wintering outside has been done in an apiary protected from wind by a board fence 8 feet high, the hives placed in cases made to hold four colonies each with packing material around the sides, beneath, and above the hives. The cellar was a low dry one under the Administration Building, which was heated all winter. The results have been very close, but outside wintering has brought the colonies forward slightly earlier in the spring.

In the wide belt where both cellar and outside wintering are about equally satisfactory, the deciding factor appears to be convenience. If the beekeeper has well insulated and dry cellar, by using it he will save the expense of constructing wintering cases, and also a wind-break, if this is not present. For a few colonies

in a cold region, a boarded section in part of the dwelling house basement makes a good cellar for the bees, and it is an advantage if the basement contains a furnace. Such a cellar should have a steady temperature somewhere between 42 degrees and 50 degrees F. In outside wintering, it is very important to protect the apiary from wind. Outside wintering has the advantage that the bees may be left without attention throughout the winter, whereas in many cellars in the milder parts of Canada, the ventilation has to be watched and controlled. Outside wintering has been very successful at the Experimental Farm at Kentville, N. S., but at the Experimental Farm at Brandon, Man., the winter has been found too severe for the best results.

For successful wintering, more important than the method is early and careful preparation for winter. For example, one cannot expect cellar wintering to be successful if the bees are left outside until zero weather, or if they are brought out very early in the spring. Nor can one expect good results in outside wintering if packing is delayed until cold weather. Neither method will succeed if the colonies do not contain plenty of bees, especially young bees, and, above all, abundance of wholesome stores, preferably clover honey, or syrup made from white granulated sugar, stored in the combs before cold weather. Mice, if they get into the hives during the winter, will ruin the colonies in a very short while.

C. E. F., Ottawa.

F. W. L. SLADEN, Apiarist.

FARM BULLETIN.

A Serious Outbreak of Corn Borer in Ontario.

The European Corn borer has come at last. For several years it has been endeavoring to obtain a foothold in the States of New York and Massachusetts, and Canadian farmers have been cautioned to be on the lookout for it. The European corn borer has come very secretly. The most serious outbreak now known on the Continent is in some of the front townships of Western Ontario. In some localities it is rarely found, while in a couple of fields in the worst infested area 95 per cent. of the stalks and ears are infested. The European corn borer has been found in all the coast townships of Welland County and in Elgin, while it has also been discovered more inland in Oxford and Middlesex. Prior to Saturday night last it had been located in the following counties and townships: Welland County—Bertie, Humberstone and Wainfleet; Haldimand—Moulton; Elgin—Bayham, Malahide, Yarmouth, Southwold, Dunwick, Aldborough and Dorchester South; Middlesex—Biddulph, London Tp., Nissouri West, Westminster, Dorchester North, Delaware, Caradoc, Lobo, Ekfrid and Adelaide; Oxford County—Oxford North, Oxford West, Dereham and Norwich South.

The Dominion Entomological Branch has had scouts in the field, and expert entomologists are working busily. It is expected that the borer will be found in the Eastern township of Kent County, but the greater part of Kent and Essex seem, so far, to be spared. Up to the present the most serious outbreaks have occurred near Crystal Beach in Welland County and near Port Stanley in Elgin. From these points the infestation spreads out like a fan, becoming less serious as the distance increases. It is altogether probable that the European corn borer will be discovered in many other townships, but the circumstantial evidence in hand would lead one to expect that the limits of the serious outbreaks have been already defined.

A representative of "The Farmer's Advocate" spent some time with entomologists in the infested areas and would describe the borer and its work, in practical language, as follows: At present the insect is in the larval stage. It is a small, hairless caterpillar about three-quarters of an inch in length, lightest grey in color with a brown head. Its presence can be detected by light dust or borings in the axils of the leaves or on or near the pedicels of the ears. It seems to enter the stalk or cob where it pleases leaving a small hole, one-eighth of an inch or less in diameter, out of which it casts the borings it has made when forcing an entrance. Sometimes the ear of corn is severed from the stalk, but more frequently only partially cut off. It also attacks the cob and the kernels. On some occasions when it has been working in a joint near the top of the stalk the portion above will break over. The larva seems to enjoy feeding on corn, while in the shock just as much as on standing corn and not until the crop is ensiled are his ravages terminated. Small, dark holes in the corn stubble are indicative of its presence, and here it finds a splendid host for the winter. The European corn borer cannot be exterminated by leaving corn out of the rotation, for it is known to live and thrive in over one hundred other weeds and plants; red-root pigweed seems to be a very acceptable host.

It is difficult to say just how serious a menace the European corn borer might become. It cannot fail to decrease the tonnage and impair the quality of the crop, for infested plants seem dry and woody.

At present farmers should be on the watch for the borer, and it would be wisdom on the part of the Provincial Department of Agriculture to have all the agricultural representatives, in corn-growing districts, visit some infested area to become acquainted with the insect and its work so they may detect it all the more easily next season.