

quantity of potatoes and roots are stored it is advisable to have openings in the roof for filling, but where only a small quantity of vegetables is to be stored they might be carried in through the door-way. Ventilation is necessary and may be provided by imbedding tile or lengths of sewer-pipe in the concrete roof. Galvanized tin hoods can be fastened on these to keep out the rain. The bottom opening of the ventilator should be adjustable so as to permit of keeping the temperature as near a certain point as possible. A four-inch concrete floor proves satisfactory. When building it may be necessary to put in pillars to support the roof. By inserting bolts or blocks of wood in these pillars you will have something to which to attach supports for the bins. Where the cellar can be put practically underground banking up is saved; where built above ground the thickness of earth to put around the walls will depend on the severity of the winter.

Vegetables Not Weeds.

It seems difficult to keep weeds out of the farm garden. They persist in growing up and choking out cultivated plants. Early this season the weather was particularly favorable to the growth of weeds, as the excessive rainfall has prevented man making a successful attack on them. The weeds found in the average garden are mostly annuals which could be eradicated if care were taken to prevent them seeding for a couple of years. However, with the rush of harvest and fall work the garden is frequently allowed to take care of itself, with the result that pigweed, purslane, chickweed, etc., mature and scatter their seeds to start a new crop the following year. A good deal of hoeing could be saved in the future if these weeds were kept from maturing seeds. This is not all, every weed takes moisture and plant food for its development and gives nothing in return. It takes well on to as much nutrient to grow a large branching pigweed plant as it does to produce a beet or a carrot. Weeds can be spoken of as robbers as they take valuable material from the soil and give little of value for it. In return, in fact they lessen the value of the garden by rendering it unsightly. Applying stable manure in the spring sometimes adds new weeds to the garden unless it has been thoroughly heated to destroy the germination of the seeds.

The most intensive farming on the place is done in the garden, and if properly fertilized and given attention during the growing season the land yields large returns. Too many do not appreciate the value of a farm garden and complain at having to spend a few hours hoeing and weeding, yet it is doubtful if the time could be utilized to better advantage. It is surprising the amount of stuff that can be grown on a few square rods of land properly worked. The radish, lettuce, carrots, beets, tomatoes, etc., used from day to day to say nothing of what is stored for winter use from the average well-kept farm garden, would bring a considerable sum on the market. One might do without such articles of diet if they were not grown on the place, but they tend to make a saving in preparing a meal and are considered healthful. A garden will produce many dollars' worth of wholesome food if properly looked after, but a full crop of vegetables cannot be expected if weeds are permitted to have full sway. Keeping the weeds down this year leaves fewer to hoe out next year. By all means have a garden, be it ever so small, but endeavor to keep the weeds in subjection.

New England Fruit Outlook.

EDITOR "THE FARMER'S ADVOCATE":

Recent estimates put the New England peach crop this season at between 1,000,000 and 1,200,000 baskets, equalling the enormous crops of two and four years ago. The peach growers association, lately organized, have undertaken to secure improved transport and distribution, and have started a peach canning campaign among housewives. The expectation is that the crop will be marketed at about 55 cents per basket. In contrast with orchard conditions here the prospects point to another big apple crop in New England. W. T.

FARM BULLETIN.

Three Million New Acres For England.

We are going on with our policy of breaking up 3,000,000 acres of grass land for harvest in 1918. The Government recognizes fully that the task of breaking up these 3,000,000 acres of grass in England and Wales, can only be accomplished by means of a greatly increased supply of labor, of horses and of machinery. All these matters are engaging its attention. Consideration is also being given to the necessity of securing adequate quantities of seed. In the meantime it is necessary to apportion to each county its proper share of the task. In preparing this apportionment an attempt has been made to equalize so far as possible the task set to the different countries, as it is recognized that many of the grass counties could not return at once to the conditions of 1872 without sacrificing a considerable quantity of dairy stock, and also that some of the principal arable counties may reasonably be asked to plough more land than would restore the area of arable in 1872. Consideration has also been given to such factors as the number of dairy stock kept in each county in proportion to the area of permanent grass; the custom in certain counties of leaving down temporary leys for several years; the extent to which the quality

of the land makes it specially suitable for producing good crops of cereals; and a general review of the local conditions of each county. It will be for the County Executive Committees, with the assistance of their District Committees, to apportion the increased area to be ploughed to the various districts and parishes, and ultimately to each individual farm. For this purpose it will be necessary to obtain particulars of the cropping, etc., of each farm, and to make a complete survey of the county in order to see that the land to be ploughed is rightly selected. The Board of Agriculture propose to arrange for the tabulation in parish schedules of particulars from the returns of the cropping and live stock of every holding over 20 acres in England and over 10 acres in Wales, and these schedules will be sent to the Executive Committees as they are completed.

In selecting the land to be ploughed, Committees have been told that they must constantly bear in mind that it will not be enough merely to secure their quota of grass land that is to be ploughed up. The task is to grow enough food to render ourselves independent of imported supplies, and for this purpose the land to be ploughed must be such that will produce at least average crops of corn and potatoes. It will not be sufficient merely to plough up the poor grass land, as such land will not produce good crops without fertilizers, and the supply of fertilizers is necessarily limited. Therefore, it will be necessary to plough up some of the good grass land. This country possesses in the good grass land the only reserve of fertility in Europe, and in the present crisis we must make use of it to produce the food which the nation needs. It will be necessary to retain sufficient grass to preserve the dairy stock, since the supply of milk must be maintained to the full; but in this connection every effort should be made to extend the system of arable dairying. With regard to other stock it will, owing to shortage of shipping, be necessary in the near future for both the army and the civil population to obtain a much larger proportion of their meat from home sources than has hitherto been the case, and for this reason, and also in view of the shortage of feeding stuffs, a large reduction of our flocks and herds will be essential in any event.

The case for a great increase of arable cultivation is overwhelming from all points of view. It is the earnest desire of the Government that the agricultural revolution should be a peaceful one, and they are confident that the appeal which is made to the farmers' patriotism, backed as it is by the guarantee against loss contained in the Corn Production Bill, will not be made in vain. The guarantee referred to is one of fixed prices for a number of years. In some counties there seems to be an idea that dairy cows and other cattle can only be kept when large areas of permanent grass land are available. At a recent meeting of the Essex War Agricultural Committee, various estimates were given of the number of acres of grass land necessary for each cow when the produce of arable land was used to help with their keep. It was stated that two acres per cow were desirable. The Hon. E. G. Strutt said that he found one acre per cow quite enough. Mr. Currie, who farms for cow-keeping, thought three-quarters of an acre sufficient. These opinions of practical agriculturists show what can be done with arable land. It must not be forgotten that the total food production of arable farming may be about four times as much as that from the area of permanent grass. By ploughing up grass, the same number of cows might be kept, and a large surplus of grain food for human consumption grown as well. Dairy farmers need not fear the new three million acres of ploughed land, when labor and horses and machinery are guaranteed them.

In view of the importance of providing seed wheat for the 1918 cereal crops the Government propose to acquire pure stocks of certain of the less plentiful varieties of autumn wheats. Crops in adequate quantity found after inspection to be suitable for seed will be purchased at a substantial premium above the milling price.

The County Executive Committees are already working on their task of preparing for 1918. Some farmers are "kicking" in a few areas. From what I am told, there are very few cases of obstructive tactics, and Mid-Cheshire is going to play its part in growing the 3,000,000 more acres of corn that the country needs to ensure our safety. There is one farmer in the Delamere area who has 75 acres under wheat—double last year's—and who intends to make it into a round 100 acres next year. Labor is the key to the whole trouble, but we are assured by Mr. Prothero, the Minister of Agriculture, that the work done on the land by soldiers has been a revelation. Relief is felt by farmers at the decision of the military not to disturb any more whole-time men. ALBION.

High Quality Live Stock at Brandon Exhibition.

The weather was ideal for the Brandon Exhibition the week of July 16. It is estimated that over 100,000 people passed through the turnstiles to attend Manitoba's greatest annual agricultural event. The great pre-eminent feature of Manitoba's Provincial Fair has always been its live stock, and this year was no exception. The show received less support from Eastern and American herds than during past years; however, the gaps were adequately filled by studs, herds and flocks of Western breeders. The horse exhibit was not on the whole numerically as strong as last year; every breed showed more or less of a decrease in entries, due largely to the difficult feed and labor conditions that face the live-stock showman. While the entries were lighter seldom has the merit been of such remarkably high standard. There were 194 Clydesdale entries and 26 Percherons.

There was keen competition in all the cattle classes. There were seventy-four entries in Shorthorns, being twenty-six less than last year; seventy-five entries in Herefords, or eleven more than last year, and sixty-seven entries in Angus. The quality was of high standard, with Herefords commanding the keenest interest. Dairy cattle were out in greater numbers than at the Alberta shows. Higher finish has been seen in the show-ring, yet the entries were of genuine merit. All the breeds of sheep were represented, there being an increase of about seventy-five per cent. in entries which incited keen interest throughout the judging. The swine exhibit outclassed all others that Brandon has been privileged to witness.

There was an excellent display of dairy produce. In each class of butter there were fourteen to twenty-one entries and from four to eight in each class of cheese. Mr. Barr, who made the awards, claimed that he had never judged at any exhibition where so few poor samples were forward. The showing of butter was mainly from the three Western Provinces. Alberta took the lead in the top awards, while Manitoba and Saskatchewan did creditably with high-quality produce.

The Manitoba Agricultural College had an exhibit of sterling worth. It was artistic in its arrangement, was educative and was extensive. Each department of the College endeavored to lay emphasis upon a single important factor. An attractive display showed the comparative value of fertile and infertile eggs from the market standpoint. An exhibit which attracted a good deal of attention showed a miniature home, including trees, lawn and garden. Alongside of this was laid out a miniature farm inhabited by weeds and gophers. The weeds were shown in their natural state, which gave the farmer an opportunity of identifying them, and made it easier for the instructor to outline methods of eradication.

Live Stock Judges.—Robt. Graham, Toronto, Clydesdales and Percherons; Fred. Richardson, Columbus, Ont., Belgians; E. W. McLean, Winnipeg, Man., light horses; Leslie Smith, St. Cloud, Minnesota, Shorthorns and Herefords; Chas. Escher, of Botna, Ia., Aberdeen-Angus; Prof. A. M. Shaw, University of Saskatchewan, Holsteins and swine; A. J. Mackay, Macdonald, Man., sheep; W. F. Stephen, Huntingdon, Que., Ayrshires.

There were thirty-eight exhibitors of Clydesdales. Ben Finlayson secured the grand championship on his stallion Edward Garnet. Maggie Fleming won the grand championship ribbon for Thornburn and Riddle. The grand champion Percheron stallion was Alpine, exhibited by W. H. Devine. The champion female was Ruth from the stable of John Graham. Manitoba breeders were strongly represented in the Shorthorn classes. While competition has been keener in other years in a few classes, the stock was in good form and utility was in evidence in every class. J. A. Watt, of Elora, had a strong line-up and secured a share of the honors. The senior grand champion bull was Augusta Star, exhibited by J. G. Barron, with Excelsior, from the Watt herd, as reserve. Barron secured the junior championship ribbon on Master Missie, his senior yearling bull. Fairview Baroness Queen, exhibited by Barron, was the senior champion female, with Thelma 3rd, from the Watt herd, as reserve. J. A. Watt secured second place in the aged-bull class on Excelsior; first on junior yearling bull, Shenley Marquis; first on senior bull calf, Gairford Seal; third on junior bull calf, Gairford Stamp. In the female classes Watt secured third in the aged class; first and second on heifers two years old; second, third and fourth in senior yearling class; second in junior yearling; first in senior calf; first, third and fourth in junior calf.

L. O. Clifford, of Oshawa, was again successful in winning a fair share of the money. He had the junior champion bull in Brae Real 8th. The grand championship went to Arm River Stock Farm on Martin Fairfax. Clifford had the senior and grand champion female in Miss Armour Fairfax. Arm River Stock Farm had the junior champion female in Beauty Fairfax. The Ontario herd secured second and third in the aged-bull class; first in junior yearling; first and fourth in senior bull calf class. In the female classes first and fourth went to the same herd in the aged-cow class; second with a heifer two years old; first on junior yearling; first and third in senior-calf class.

The quality of the Aberdeen-Angus shown at Brandon this year was never higher. While a number of exhibitors were out, the main competition was between the herds of J. D. McGregor, of Brandon, and Jas. Bowman, of Guelph. McGregor had the grand champion bull in Black Abbott Prince, and the junior champion in Black Cap McGregor. Similar honors in the female classes went to the same herd on Majesty Queen and Pride of Glencarnock 3rd. The Ontario herd was second in the aged-bull class; first and second in class for bulls two years; second in senior yearling; fourth in junior yearling; second and third in senior calves; and first in class for senior bull calves; third and fourth in the class for aged cows; first and third in class for heifers two years; first and second in senior yearling heifers; third and fourth in senior calves, and fourth in junior heifer calves.

There was keen competition in the Holstein classes, there being many good individuals in every class. J. Laycock, of Alberta, had the senior and grand champion bull in Korndyke Posch Pontiac, while the senior and grand champion female was Ruby Nig, from the herd of Clark & Sims. The senior and grand champion Ayrshire bull was Burnside Lucky Sensier, from the herd of W. Braid, of Manitoba. The highest honors in the female classes also went to the same herd on Lochfergus Snowdrop.