

appear to be light with fall and winter apples about medium. In the St. Lawrence and Ottawa Valley districts the crop of Fameuse and McIntosh is about fifty per cent. of normal. Reports from the St. John Valley place the probable crop at about sixty per cent. of normal, but scab is developing rapidly. The apple crop in the Annapolis Valley is estimated at about 800,000 barrels, and the fruit is clean in well-sprayed orchards. In Prince Edward Island early varieties promise a fair crop. If conditions are favorable it is believed that the Island will produce the largest crop for some years. The estimated crop in the Kootenay Lake district is seventy-five per cent. of 1916. The crop promises to be light in the apple sections of New York State.

In the Niagara Peninsula sour cherries are about fifty per cent. of the normal crop, and about seventy-five per cent. in the Burlington district. Sweet cherries were a light crop and owing to weather conditions rotted badly. Between Hamilton and Grimsby the peach crop will not exceed forty per cent. of that of last year, but from Grimsby to Niagara Falls it will be about sixty per cent. Leaf curl has been bad in some sections and the drop has been heavy. Outside of Niagara there are practically no peaches in Ontario this year, with the exception of Lambton County, which has about ten per cent. of last year's crop. The Niagara grape crop promises to be good but will be a couple of weeks later than usual in maturing. The pear crop in the Niagara District is light to medium, with a fair crop in some orchards. The June drop has considerably reduced the plum crop. Lombards, Reine Claude, Yellow Egg and Monarch are light to medium, or about thirty per cent. of a normal crop in Niagara, but elsewhere in Ontario and in Nova Scotia prospects are good. A heavy crop is reported in British Columbia. Indications are for a good crop of small fruits in every district.

In Eastern Canada there has been a serious outbreak of apple scab fostered by prevailing weather conditions. The development has not been so serious in the Western districts. Canker worms have infested the Annapolis Valley and have also appeared in New Brunswick. Taking the Dominion as a whole the apple crop is exceedingly light, but even so those interested in marketing the fruit should lose no time in arranging for the widest possible distribution of the crop in Canada, in order that none of the crop be lost in the event of the embargo remaining.

FARM BULLETIN.

Keep the Potato Vines Green and Growing.

Many are growing potatoes in Canada this year for the first time and, as a result of the increased number of growers the crop will probably be greatly increased. But to insure a good crop there must be an abundance of moisture in the soil, and the tops must be protected from insects and disease. The soil should be kept cultivated until the tops meet sufficiently to shade the ground. As most of the tubers develop in the three or four inches of soil nearest the surface, and as the tubers will not develop well in dry soil, quite shallow cultivation is desirable at this season of the year. In soil which is dry there may be good development of tops but there will be few tubers. The roots in such cases have gone down deep into the soil to obtain moisture, but the tuber-bearing stems, which are quite different from the root system, do not develop well. Where the soil is a loose, sandy loam, hilling is not necessary and may be injurious, as the soil dries out more than if left on the level. In heavy soils it is desirable to hill the potatoes, as it will loosen the soil and the tubers will be more shapely than when the ground is left level. When there is sufficient rainfall and moisture in the soil hilling is likely to give best results in all kinds of soil, as the soil will be looser and the tubers can push through it readily. As a great development of tubers takes place during the cooler and usually moister weather of the latter part of summer, it is very important to keep the plants growing well until then. In one experiment it was shown that during the month of September there was an increase of 119 bushels of potatoes per acre.

It is very important to prevent the tops of potatoes from being eaten by insects, particularly by the Colorado Potato Beetle. The old "bugs" do not do much harm to the foliage, as a rule, and usually the plants are not sprayed to destroy these, although the fewer there are to lay eggs the less difficulty there will be in destroying the young ones. These begin to eat rapidly soon after hatching, and close watch should be kept so that the vines may be sprayed before much harm is done. Paris green kills more rapidly than arsenate of lead but does not adhere so well, and in rainy weather it is desirable to have something that will stay on the leaves so that they will be protected until it stops raining and thus prevent the tops being eaten. At the Central Experimental Farm a mixture of Paris green and arsenate of lead is used in the proportion of 8 ounces Paris green, 1½ pounds paste arsenate of lead (or 12 ounces dry arsenate of lead) to 40 gallons of water in order to get the advantage of both poisons. It may be that it is not convenient to get both poisons when either 12 ounces of Paris green or 3 pounds paste arsenate of lead (or 1½ pounds dry arsenate of lead) to 40 gallons water could be used, or in smaller quantities, say 1 ounce Paris green to 3 gallons or 3½ ounces paste arsenate of lead or half that quantity of dry to 3 gallons of water. An experiment conducted for six years at the Ontario Agricultural

College, Guelph, showed that, on the average, where the tops were sprayed to kill "bugs", the yield was 186.9 bushels per acre, while when the tops were not sprayed and allowed to be eaten, the yield was only 98.2 bushels per acre. It is desirable not to stop with one spraying which usually does not kill all the bugs but to spray several times, if necessary, so that as little foliage as possible is eaten.

Some years the crop of potatoes is much lessened by the late blight disease, and when rot follows little of the crop may be left. It is, therefore, very desirable to prevent this disease from spreading. This is done by keeping the plants covered with Bordeaux mixture from about the first week of July, or before there is any sign of the disease, until September. Sometimes the first application of Bordeaux mixture is made before the potato beetles are all killed when the poison for them may be mixed with the Bordeaux. While the disease is not very bad every year, it is well to be prepared. There was an average increase per year of 94 bushels of potatoes from spraying with Bordeaux mixture in three years.

The formula for Bordeaux for potatoes is 4 pounds copper sulphate or bluestone, 4 pounds freshly slaked lime to 40 gallons of water. While the bluestone will dissolve more quickly in hot water, if it is not convenient to get this it may be suspended over night in a cotton bag in a wooden or earthen vessel containing four or five or more gallons of water. The lime should be slaked in another vessel and before mixing with the copper sulphate solution should be strained through coarsesacking or a finesieve. The copper sulphate solution is now put into a barrel, if it has not already been dissolved in one, and enough water added to half fill the barrel; the slaked lime should be diluted in another barrel with enough water to make a barrel of the lime mixture. Now pour the diluted lime mixture into the diluted copper sulphate solution and stir thoroughly, when it is ready for use. The concentrated lime mixture should not be mixed with the concentrated copper sulphate solution, as, if this is done, an inferior mixture will result. If the barrels are kept covered so that there is no evaporation, stock solutions of the concentrated materials may be kept in separate barrels throughout the season. It is important to have the quantities of lime and copper sulphate as recommended, but, in order to be sure that enough lime has been used and there is no danger of burning the foliage, let a drop of ferrocyanide of potassium solution (which can be obtained from a druggist) fall into the mixture when ready. If the latter turns reddish-brown, add more lime mixture until no change of color takes place.—Experimental Farms Note.

East Middlesex Notes.

EDITOR "THE FARMER'S ADVOCATE":

June is the month usually devoted to roadmaking, but some of it at least is not done yet. This is a system where we think Home Rule or local self government should be replaced by centralization so as to secure more uniformity in the methods. Each county or township should have a capable overseer or inspector appointed by the government in townships where the Statute Labor system is still retained. The average pathmaster is either incapable, careless, or afraid of offending his neighbors to do efficient work on the roads, and some of them are all three in one.

Another advance has been made in the cheese industry. Our cheesemaker announces that cheese will henceforth be graded into three grades and sold with one-half cent reduction on each grade and appeals to his patrons to take better care of the milk. This is the next best thing to paying by test which came so near realization.

It looks as though we would have a few apples after all, especially the early varieties, but it is pretty safe to predict that there will not be much cider drunk on the old farm in Middlesex this fall.

The heavy rains still continue and are doing some damage to root crops and gardens, also grain crops to a less extent on very low and poorly-drained land. But on the whole the benefits far exceed the losses as the yield of straw will likely be heavy to offset the dearth of last year and with a heavy yield of straw there is usually a fair yield at least of grain. But the moist, warm weather is favorable to the production of smut and rust, and already there are signs of the former at least being plentiful. There is also a material increase in the yield of hay but unless it dries up at least a little more the difficulty of curing hay will be enormous. Some have started haying, but we would prefer to risk it a while longer as there is less danger of it getting woody in a wet season, and anyway it is better to be a little woody than spoiled with rain.

The rain is also interfering seriously with the honey crop. All indications at present point to a small yield and higher prices. However, this is not an unmixed evil from the beekeeper's standpoint because if he cannot get honey he can get bees as there is enough honey coming in to keep brood rearing going lively and swarming is quite frequent.

Middlesex Co., Ont.

J. H. BURNS.

Cheques Issued to Wool Growers

Owing to the vast amount of work entailed in grading, shipping and making up the individual accounts it has taken considerable time to complete the business in connection with the marketing of wool co-operatively at Guelph. However, the secretary R. W. Wade has everything in readiness for issuing the checks the week of July 23rd. Any sheep-breeder who has shipped wool but has not received his cheque by the end of the week should write the secretary at once for an explanation.

A Successful Exhibition at Edmonton.

In many respects the Edmonton Fair this year was superior to those held in the past. While some breeds of stock were not quite so well represented as last year, others were out in greater numbers. The industrial display far exceeded that of other years. The showing of farm machinery, tractors, dairy equipment, etc., attracted the attention of visitors, especially those from the rural districts. The attendance was all that could be desired.

In the horse department Clydesdales presented the greatest competition. Many new Alberta breeders brought out animals of high quality. There was also a good showing of Percherons, particularly from the southern part of Alberta. The other breeds of horses were represented by good specimens, although they were not out in large numbers. There were 528 entries of cattle, which is a trifle below that of last year. The Medicine Hat show being held at the same time was largely responsible for this. There was a large showing of Herefords, the same herds coming in competition as were at Calgary. The Shorthorns were not so numerous as at the former show.

The Prairie flocks have made steady growth in numbers and quality as evidenced by the large entry of sheep of high standard. A number of Eastern breeders were present and carried away some of the honors, although the Western breeders were successful in a number of classes. The showing of Alberta-bred purebred swine surpassed any previous exhibition in the Province. There was strenuous competition in practically all the classes.

The entries in Clydesdales were all from Alberta. The grand champion stallion at Calgary, exhibited by Ben Finlayson, again secured the high honors. The champion female was Poppy, exhibited by Geo. Cresswell, with Nell of Atkin, the champion at Calgary, as reserve. The Percheron breed was fairly well represented by individuals from six stables. They made a splendid showing and aroused considerable enthusiasm. The champion stallion and female at Calgary were each moved into reserve positions, and the honor went to the three-year-old stallion, Marvel, exhibited by Geo. Lane. The champion female was Nellie Bell, from the same stable. There were two exhibitors of Shires, one of Belgians, and one of Suffolk Punch.

In Shorthorns the main contest was between the herds of Yule & Bowes and J. G. Barrow, although other exhibitors were able to get well up in the money in many classes. The placings at Calgary were slightly changed. John Miller, Junior, of Ashburn, was the only Ontario exhibitor, and succeeded in securing a share of the prizes. The senior champion bull was Banner Bearer, exhibited by Yule & Bowes, while J. G. Barrow had the junior and grand champion in Jubilee Star. Fairview Baroness Queen won the highest honors in the female classes for Barrow, with Clipper Girl in reserve.

The high quality of the competitors in the Hereford classes created intense interest. Five Western herds and one Ontario herd were exhibited. L. O. Clifford, of Oshawa, secured second in the aged-bull class, on Bonnie Brae 31st; G. E. Fuller's bull, Martin Fairfax, winning the class also the grand championship. The Ontario herd was first in the junior yearling class, first and fourth with senior calves, and won the junior championship on Lord Fairfax 5th. Miss Armour Fairfax secured the first prize ribbon in the aged-cow class for Mr. Clifford, and also was awarded the grand championship ribbon. Third prize in the three-year-old cow class, second in the two-year-old class, first in the junior yearling class, second and third in senior calf class, first in junior herd, second in two, the progeny of one cow, and third in the aged herd all went to the Ontario Herefords.

Three herds of Aberdeen-Angus were entered, and the Ontario herd shown by Jas. Bowman, of Guelph, secured a fair share of the honors. Beauty's Leroy won the senior championship but was defeated for the highest honors by Black Cap McGregor, the junior champion from the Brandon herd. The champion prizes in the female classes all went to McGregor, although Bowman secured second and third with aged cows, second and third with heifers two-year-old, first and second with senior yearlings, second with a junior yearling, second and third with senior calves, and second with a junior calf. In the class for two, progeny of one cow, the Ontario herd was awarded first and third prizes and secured second in both the aged and junior herds.

Holsteins made the strongest showing in the dairy classes. While there were only three exhibitors of Holsteins, their stock presented keen competition for the honors. Korndyke Posch Pontiac, from J. Laycock's herd, was declared senior champion bull, with Bonnie Brae Carmen from the same herd as junior champion. The grand championship prize in the female classes went to Geo. Bevington, on Duchess of Springhill, with Sutherland Abbecker Polly, the junior champion from Duke of Sutherland's herd as reserve. Rowland Ness, of De Winton, had a strong line-up of Ayrshires. The entire herd was in fine bloom and made an attractive showing. The champion female was Ness' Birdie of Lone Spruce, and the champion bull, Burnside Masterman. Four Jersey herds competed for honors, making strong competition in most classes. It was the best Jersey showing that Edmonton has witnessed and the entries were all from Alberta. The Jean Duluth Farm Company, of Minnesota, were the only exhibitors of Guernseys, and brought out typey, uniform representatives of the breed.