

practically extinct. Here and there a few are carrying it on, but the foreign and colonial butter has captured the trade."

"What about beef?"

"The Old Country men have it a little better in beef; they have the knack of feeding, and they produce a better article than the Canadian beef. Agriculture is in a bad way; rents are high in proportion to the earning value of the land, and foreign competition is pressing the farmers hard. Great areas are being laid down to grass; considerable oats are raised, but fields of wheat are becoming rare."

GARDEN ORCHARD.

Winter-killing of Top-grafted Trees.

During the past six years, says Prof. W. T. Macoun, Horticulturist at the Central Experimental Farm, in his 1904 annual report, 90 varieties of apples have been top-grafted on hardy stocks, with the object of determining whether varieties which would not succeed when grown in the ordinary way would prove satisfactory when top-grafted on stocks having hardy trunks. The experiment was proving very interesting, and some varieties were apparently going to succeed when tested in this way, but last winter came and killed practically all those which had proved tender when tried as standard trees. The dividing line between graft and stock was very marked in all cases examined. A Northern Spy which had been top-grafted on Duchess for 13 years, was killed completely back to the stock, which was as healthy as ever; and many other instances might be quoted. Two varieties of apples were top-grafted on Wealthy in 1891. One of these, the Milwaukee, a hardy variety, and another, the Martha. Each variety occupied about one-half the top of the tree. The Martha was all killed, while the Milwaukee remained alive and bore a good crop of fruit. Top-grafting will bring a tree into bearing sooner, and will permit of growing varieties which sun-scall on the trunk or are weak in the trunk in other respects, but the grafts, if made any harder, are not sufficiently so to stand very severe winters.

Apple Barrels Slack, and Too Many Varieties.

W. A. McKinnon, Canadian Commercial Agent in Bristol, Eng., writes under date of October 31st:

I have just been called in to examine a lot of Canadian apples recently landed here for sale on commission. These consisted of a number of varieties, including King, Greening, Powaukee, Cranberry Pippin, Hubbardston, and others. The receiver stated that the fruit was not in good condition, and he therefore offered facilities for its examination.

Not one barrel of the twenty or more which I examined was "tight," as all should have been on arrival. It seems hardly possible that these could have been properly packed at the point of shipment: if so, the fruit must have been subjected to high temperature at some stage of the journey, for there was a large proportion of rotting and soft fruit. As the Inspector for the Department of Agriculture stated that they were carried in a well-ventilated part of the ship (No. 1 "tween-decks"), it is hardly to be supposed that the damage began on board ship, and I am inclined to fear that the fruit was never properly cooled before it went aboard at Montreal. The shipper has been notified, but it is to be hoped that other exporters will take warning. Especially in a season when good fruit is commanding such excellent prices, it is regrettable that profitable returns should be lost owing to the want of protection from heat between the time of packing and of loading on board ship.

It is, of course, impossible for shippers to throw away all the less popular varieties and to confine their shipments to a few of the leaders; so long as the trees live, or until they can be top-grafted, these grades must be marketed, but I think that odd varieties and mixed lots would do better in the larger and more highly-organized markets on this side. The Bristol market is just in process of development, and should have special care. The trade here express the opinion that five or six varieties are all that they require, and have recommended some of the following: Spy, Baldwin, Greening, King and Golden Russet. The Snow is very popular in the early part of the season if it can be landed in good condition.

An Oakville exporter has just sent a very good lot, showing less than ten per cent. of "slacks," the private sale of which, so far as it has gone, has yielded excellent prices. This lot included some King, Spy, Greening, Mann and Calvert, and was not, on the whole, of the highest quality, many of the barrels being marked No. 2 (or XX), but the prices realized are much better than could be got for so-called No. 1 grade improperly packed or out of condition.

The Canadian Pacific Railway and the Dominion Line have, I understand, decided to continue for the present their system of fortnightly sailings, taking alternate weeks, the former from St. John and the latter from Portland. This will give a much better service than was offered last winter, being, in fact, equal to the summer service. Canadian exporters, who appreciate

the immense importance of regular sailings, and who desire to see them continued, will, it is hoped, patronize the service to the full during the coming winter, in order to demonstrate the success of the experiment, and ensure its continuance.

Fruit Experimenters Meet.

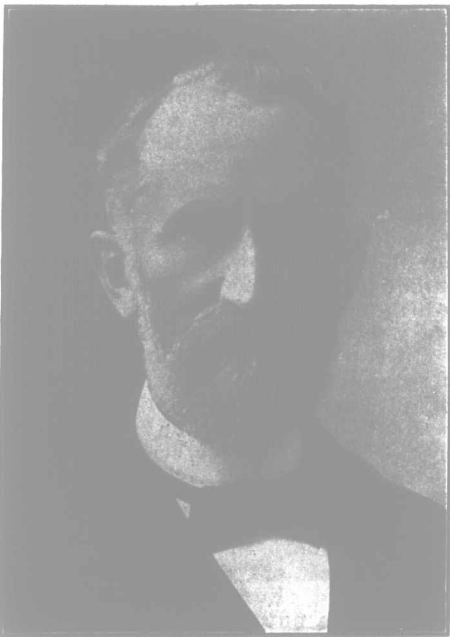
One of the features of the Ontario Horticultural Exhibition in Toronto, November 14th to 18th, was the exhibit made by the Ontario Fruit Experiment Stations, and on the 17th a meeting of the directors of the stations was held in Victoria Hall. Prof. G. C. Creelman, President of the Ontario Agricultural College, was in the chair, and great interest was manifested in the reports.

Linus Woolverton, of Grimsby, gave an address, in which he advocated co-operation in growing the best commercial varieties of fruit, as better prices could be realized if quantities of the same variety could be got in one locality, each locality to grow the kinds best suited to the soil and climatic conditions of the section where they were grown.

W. H. Dempsey, of Trenton, spoke of novelties in apples, and showed what had been done in hybridizing apples. Among the good kinds that had been produced, he mentioned Ontario, by Chas. Arnold, of Paris; Trenton and Walter, by the late P. C. Dempsey. These were crosses of Spy with Golden Russet. The Trenton apple had sold in Liverpool at 20 shillings per barrel.

Harold Jones, of Maitland, in the St. Lawrence Valley, gave as a commercial list for his district Duchess, Wealthy, Alexander, Wolf River, Snow, McIntosh and Scarlet Pippin. The last three were, undoubtedly, the commercial varieties of the St. Lawrence Valley. McMahon's White and Milwaukee also did very well.

W. W. Hilborn, of Leamington, discussed the best varieties of peaches for Southern Ontario. Among the varieties chiefly recommended are Yellow St. John, Golden Drop, Early Crawford, Garfield, Fitzgerald, Ingle



James S. Scarff, Woodstock, Ont.

President Fruit-growers' Association of Ontario.

Mammoth, Elberta, Smock, Kalamazoo and New Prolific. The best soil for peaches is a well-drained sandy loam; but the greatest obstacle to peach-growing was the absence of snow and lack of protection of the roots, resulting in root-killing of whole orchards during severe winters. Cover crops were suggested, and the answer was that that had been tried with rather poor success. Peaches required good cultivation through the season, and cover crops did not make sufficient growth to give much protection. Sawdust had been tried and was a good protection, but it was thought by some that its continued use injured the trees. Mr. Hilborn thinks the best thing would be to cover the ground about the trees with long manure or straw, and put a layer of earth over the top.

G. C. Caston, of the Simcoe Station, spoke of hardy cherries, and gave as a result of the testing of a large number of varieties a list that had done the best so far: Osthrem, Orel 24, Dyehouse, English Morrello, Russian 207, and Bessarabian. All were more or less subject to black-knot, and the best preventive was spraying in spring on the bare trees with bluestone alone, 3 pounds to 40 gallons of water.

A. E. Sherrington, of Walkerton, reported on his experiments with raspberries. He recommended Marlboro for early crop, but stated that there was room for a better early red than Marlboro. Cuthbert, for medium to late, still held its place as the best commercial berry, though it was likely to have a strong rival in the new variety known as the Herbert, originated by R. B. Whyte, Ottawa. He did not recommend yellow raspberries at all for a commercial plantation, as they were not satisfactory, and did not sell well. In blackcaps, Conrath, Hilborn and Older had proved the best. The purple berries, Columbian and

Shaffers, were prolific, but on account of their color did not take well in market.

A. W. Peart, of Burlington, gave his experience with currants. They did best on a cool, rich, moist soil. He preferred spring planting and spring pruning. He plants six feet apart, and in pruning cuts out most of the wood over two years old. In red varieties the best were Cherry, Wilder, Victoria, Prince Albert and Fay. In blacks, Naples, Lee's Prolific, Saunders' and Collin's Prolific had proved the best.

A discussion on spraying brought out the opinion that the first spraying on the bare trees with bluestone, 3 lbs. to 40 gallons of water, was the most important.

It was also recommended that an expert horticulturist, who thoroughly understood fruit-growing and propagation, hybridizing, etc., be appointed to take the supervision of the Experiment Stations.

Ontario Vegetable-growers.

The first convention of the Vegetable-growers of Ontario was held in Toronto Nov. 15 and 16. There are several local associations, and these unite to form the central association, with headquarters at Toronto. Election of officers takes place in December, those at present in office being W. A. Emory, Aldershot, President; Jos. Rush, Humber Bay, Vice-President; H. B. Cowan, Toronto, Sec.-Treas. Though vegetable-growing has been conducted from the very advent of man upon earth, our first parents being placed in a garden which they were to keep and dress, the Vegetable-growers' Association of Ontario is the infant among associations, having never had an existence until this year. The first session was but poorly attended, and some of the speakers advertised failed to appear. However, those present, who were mostly Toronto market gardeners, were wide-awake practical men who did not allow discussion to lag, as it too often does in Farmers' Institutes, and the meeting was snappy and practical throughout.

The first matter that came up was a request to Mr. Putnam, Superintendent of Institutes, who was present, to have a representative of the Vegetable-growers put on the list of speakers at Farmers' Institutes, so that when Institute meetings were held in neighborhoods where canners' vegetables were grown, or where there were a considerable number of market gardeners, topics of interest to such might be discussed. Mr. Putnam believed something could be done, and promised to make such arrangements as were possible for the present season.

Mr. A. N. Brown, of Wyoming, Del., gave a short but forceful and instructive address. He is of the typical go-ahead Yankee type. Delaware growers had, for many of their products, a very short market season. When the market for a few days was bare of certain lines of produce from other districts they came in and filled the niche. You can put character into a vegetable as you can into an animal, by feeding. Feed liberally and judiciously, and cultivate thoroughly, and the product is altogether different from that ordinarily grown. In his State, gardeners endeavored to have always the last thing in fall some kind of cover crop for plowing under in spring. A succession of crops for a season that some use was given: Kale, early cabbage, tomatoes, and crimson clover and turnips sown together. The turnips are pulled for market, the crimson clover left as a cover crop. Such a number of crops, of course, could not be grown in a northern climate, but intensive methods were most profitable anywhere. Emphasis was laid on aeration of the soil by proper cultivation. By this means the stores of plant food were liberated. For this purpose moisture alone is not sufficient; air, also, is necessary. Vegetables that have been grown rapidly are always of much better quality. They are then sweet, breaking easily, and tender. Attention should also be given to have them put up in attractive form. People are always ready to pay for appearance. Reference was made to the satisfaction there is in producing a good article. When a man loves his business he makes a success of it, and to him it is no drudgery. Hearty applause was given Mr. Brown as he retired.

Some discussion on green cover crops for gardens followed. Crimson clover grew all right in fall, but in our climate would never winter over. Rye, according to most, was no good, but Prof. Macoun, of Ottawa, claimed it was all right if plowed under as soon as possible in spring. The mistake generally made, he said, was in letting it grow up until it was woody and had dried the ground up. Plowed as soon as the ground was dry in spring it served a good purpose. One member said that fall-sown spinach, allowed to grow up tall in spring, and then plowed down, had, in his experience, been followed in two successive seasons by the finest crops of cauliflower and cabbage he had ever seen. Others corroborated this statement. Rape, peas and clover were also spoken of as being useful for green manuring, but for the average market gardener, who usually has but four or five acres, the opinion seemed to prevail that it was more profitable to get humus in