

as to spoil them for market but not for feeding purposes, from which we have learned that two tons of Swedes have more value than one ton of potatoes. It is easier to grow 25 tons of Swedes than 12½ tons of potatoes, (1) besides which there is the cost of cooking the latter. We have gone into the subject of the relative feeding values of the two crops, because results of a few experiments are frequently taken as data to show the exceptional value possessed by potatoes as a fodder crop. Experience shows us that there is no special advantage to be reaped by substituting potatoes for Swedes as a crop; nor is it more profitable to buy potatoes at double the cost per ton that would be paid for Swedes at the same time."

As before stated, potatoes should be cooked before feeding. They should also be washed free from dirt, which is easily done by placing a loose wooden grating in a tub or long trough. Fill half the trough with water, place the floating grating on this, then throw in the potatoes, stir and rub them with a broom or hard brush, and in a short time the potatoes will be clean and the dirt will have sunk beneath the grating. Cooked potatoes are readily eaten by all kinds of stock, and poultry thrive on them. They are particularly suitable for horses which are being fitted for sale, as they give a sleek appearance to the skin and a brightness to the coat. *Ex.*

BAD ROADS.

The condition of the country roads in many parts of this continent during the months of November and December in the early part of winter, and March and April in the spring, can be only described as most deplorable. During some seasons their condition is oftentimes so bad that even those farmers who look with contempt and indifference of all schemes of road improvements, from the modest one of a better carrying out of the present system of road work to the elaborate and expensive plans suggested by more thorough road reformers, feel bound to admit that something ought to be done to improve the roads.

The apathy shown by so large a part of the farming community, when road improvement is proposed, is largely due to three causes. First, there is that great conservatism among farmers which finds expression in the statement that what was good enough for their fathers is good enough for them. In the second place, they fear that road improvement is going to be an expensive proceeding, from which they will derive no proportionate return; and, thirdly, they say, with some show of reason, that road improvement is being urged mainly in the interests of bicyclists and townspeople who possess horses and carriages.

The first reason is the weakest one of all, but it is one which is very often urged, nevertheless. It is, however, believe, very often given as a reason by some in order to avoid stating that they object to the cost of road improvement. This is, after all, the main objection farmers have to all the schemes propounded. If it could only be demonstrated to their satisfaction that improved roads would be a lasting benefit to them much of this opposition would disappear. — *Farming.*

(1) We should say, judging from Sorel crops, than 6 tons of potatoes. — *Ex.*

Orchard and Garden.

POMOLOGICAL.

Annual Meeting of the Fruit Growers' Association at St. Johns.

Winter-seedlings—Cranberries—Prof. Craig on apples—Prof. Fletcher on injurious insects—Distribution of grafts—House plants—R. W. Shepherd on packing and shipping apples—Ball on vegetables—Spraying.

As announced in our last issue the annual convention and business meeting of the Provincial Fruit Growers' Association was opened in St. Johns on Wednesday evening of last week. There were present Mr. R. W. Shepherd, Montreal, president; W. W. Danlop, of Outremont, secretary; Messrs. E. A. Barnard and Chapais, representing the Quebec district, Robert Brodie and Cecil Newman, the Island of Montreal, M. Halero, of Hudson; Messrs Wm. Craig, J. M. Fisk, C. Fisk, Abbotford; S. A. Fisher, Knowton; R. J. Bail, Knowlton; A. Johnston, Cowansville; David Westover, Frelighsburg; M. Peter MacFarlane, of Chateaugay; W. N. Pattison, of Clarenceville and many others.

Prof. Fletcher and Craig, from the Ottawa Experimental Farm, were also on hand and as a matter of course contributed very materially to the success of the meeting. Among the local members of the committee who were present to meet them were Mayor O'Can, Messrs. D. and A. Macdonald, Hon. F. G. Marchand, Dr. Wood, Sheriff Arpin, P. J. Doré, Henri Roy, I. B. Farvoo, P. A. Chasé, A. J. Corriveau, E. R. Smith, A. Morin, J. B. Demers.

Owing to a misunderstanding as to the place of meeting, the formal opening was deferred till the following evening, and the business taken up was the report of the Committee on Spraying. Messrs. R. Brodie, Fisk, Newman, Chapais, Prof. Craig, Fisher and Prof. Fletcher spoke to this. The general consensus is that spraying is effective and a necessary part of the orchard work. It was said that second and third seasons' experience had shown accumulative advantages. The results increase year to year. After the meeting Mr. Duncan Macdonald, conducted a number of the visitors to his fine residence and entertained them after the meeting.

THURSDAY MORNING.

On Thursday morning the business meeting of the convention took place the annual report, financial statement, etc., being read and adopted. Committees were named and the samples of fruit laid out. Among these were ten entries of winter seedlings, sent in response to the prizes offered for the best new variety of seedling apples which will keep until 1st May. They make a very fine show. Mr. B. Newman exhibited a winter seedling, named Lachine, which he entered in the seedling competition. Mr. Gibb, of Comox, exhibited Powaukes and Arabkas, and Mr. W. F. Halero, of Hudson, had an unknown variety, which it is intended to name later. Mr. J. M. Fisk, of Abbotford, displayed Canadian Baldwin, Arabkas, Ben Davis, Golden

Russet, and Svintsovka, or Lead apple, and a sample of native cranberries. Mr. D. Westover, of Frelighsburg, had Wagoner Ben Davis and Rhode Island greening, whilst Mr. R. W. Shepherd, of Comox, exhibited Rambos and Canada Baldwins. Mr. Louis Hamel, St. Hilaire also showed some wonderfully well preserved grapes.

THURSDAY AFTERNOON.

The afternoon session was taken up with a number of most interesting and instructive papers and discussions thereon. Mr. Chapais proposed in a thoughtful essay the establishment of some experimental fruit stations, say four or five, in the various sections. A committee to consider this and interview governments was formed. Mr. Craig gave an elaborate address on the food elements taken from the soil by apple crops and how to supply these.

CRANBERRY CULTURE.

Mr. J. M. Fisk, one of our most practical fruits growers, read a paper on "Cranberry Culture," in which he advocated the cultivation of the plant, which would grow readily from cuttings, in those swamps which were abundant in many parts of the province. The culture of cranberries could turn them to profit. The best vines to select from which to take cuttings were those whose leaves had a greenish-brown color, and not the bright shiny green, which were less productive. The vines should be selected in September, before the fruit was plucked. There was no need to import the cuttings from either Cape Cod or Massachusetts, as abundance could be obtained from our own marshes, and without the risk of importing insects, from which our own vines were comparatively free.

Prof. Craig said that the subject was a very important one, and it was one that was coming up all over the country. As to the profits he had seen accounts showing that, one man in Nova Scotia, from the sales of the product of two acres of last year, realized about \$700. This year the sales had not been quite so good, but the same person had made over \$100 an acre clear money.

Mr. H. Roy mentioned that, near St. Bridget, there were large tracts of land that were admirably adapted for cranberry growing, and, he thought, it would be well if the Government would undertake to make a few experiments there.

The President thought that cranberry culture had been very much neglected in this Province, where we had quantities of suitable land. He was of opinion that every farmer might have a nice little patch of cranberries, and make it profitable.

APPLE GROWING.

Prof. Craig gave "Some Thoughts on Apple Growing," illustrated by charts in which he dealt at length with the elements contained in the soil that were absorbed by apple trees—nitrogen, phosphoric acid and potash—and showed how essential it was that the trees should receive these in proper proportions. Potash was the chief ingredient necessary. Before the trees bore fruit, barn-yard manure, which could be used as a top-dressing, contained all these elements in about the proper proportions, but after a tree arrived at the bearing state, it required more potash, which could be most cheaply obtained

from ashes, whilst the necessary phosphoric acid (1) could be obtained from bone meal and phosphates.

INJURIOUS INSECTS.

Professor Fletcher gave an admirable address on "Injurious Insects of the Garden and Orchard," which is clearly summarized in the Gazette, the need of keeping plants and trees in a healthy condition, so as to be little liable to an attack from insects as possible. Regarding the turnip flea, he said that the practice in the Ottawa District was to sow the turnip seed about the 15th to the 20th June. The plants then came up when the first brood of fleas has disappeared, and the second brood did not appear until the plants were sufficiently grown to escape injury. Among the insects that he had had complaints about in the Province of Quebec was the bad moth, against which late spraying proved most effective. There was also the insect known as the casebearer, against which a spray of kerosine and soap suds or a spray of Paris green was the best preventive. For getting rid of the cabbage maggot, pouring kerosine mixture among the roots of the plants had been found very serviceable, as well as a mixture of hellebore and water. Cut worms should be controlled by wrapping a piece of paper, 2, round the stem of the plant, when putting it in the ground, leaving about an inch of it above the soil; or they could be got rid of by steeping a small bundle of weeds in a mixture of Paris green and water, and putting them down where the pests were. As to the onion maggot, he had not been able to treat it successfully, but has obtained fairly good results by sprinkling carbolic acid and soap suds, or gas lime over the beds. For the plum carculio and the codling moth, he recommended Paris green and Bordeaux mixture. The canker worm should be got rid of, either by thoroughly spraying the trees, or where they are too large to admit of this, by placing some mechanical contrivance round the trunks, either made of tin or a band of paper, and smearing it with fish oil and printer's ink, or with resin and castor oil. To this viscid mixture the moths adhered, and any eggs that were deposited were laid below this artificial band, so that it was easy to destroy them, either by scraping the trees, or by spraying them with coal oil and soap suds. If grass-hoppers ever become numerous as they threatened to do last summer or so, he advised the use of the machine known as the hopper dorer which did good service in the Western States, whilst for exterminating a curious wingless moth, which never left its cocoon, but the caterpillars of which eat holes in apples, he recommended spraying with Paris green.

THURSDAY EVENING.

The gathering took place in the Theatre Royal. The President occupied the chair, and in delivering his annual address, he pointed out that ladies could aid the Society in its work, and recommended that they should be represented on the directorate as soon as one was found willing to undertake the duties of such an office. It was a step which he thought would work to the advantage of the Society. He spoke of the progress made

(1) Plenty of phosphoric acid in wood-ashes. — *Ex.*

(2) We used always to wrap our tobacco-plants, or rather the roots, in maple-leaves. — *Ex.*