MISSION TO OUR FARMERS.

(Continued from page 2.)

VALUE OF BIG SEEDS.

Now a word or two as to seeds. The plant grows, and there are formed root, leaf, stem, and flower,—these things all perish absolutely. But seed that is formed does not perish. It will carry life through to other plants. The kind and the condition of the seed is, then, of the highest importance. There exists in an oat seed the inherited tendencies of two hundred crops that went before it. In selecting seed it is important that these qualities should be secured: 1st, power to overcome obstacles; 2nd, power to take hold of things and keep them afterwards. The kind of root and the kind of blade and the vigor of the whole plant depends on the seed. By sowing big seeds you will get a bigger and stronger root and leaf than by sowing small seeds. It is therefore very much better to sow the best seeds of their kinds. The size of the crop depends largely upon the seed.

Professor Robertson illustrated this fact by exhibiting two bottles of peas. Each came from the one pea planted in 1895. In the case of one bottle the bigger peas produced were planted; the other bottle contained the product of the smaller peas, selected and planted by themselves in 1896 and 1897. The peas shown were the respective products of three years. Those which were the product of the big peas were twice as big those which wer the product of the little peas,—though the conditions of soil and cultivation were exactly alike in respect to each. Roughly speaking there was, as a result of only three crops, twice as large a product of the big peas. More than that, it had been similarly proved that the bigger the seed, the bigger the proportionate weight of straw. Farmers should, therefore, look closely to their seeds. He did not mean that they should import all their seeds or go to the uttermost part of the earth for them. He meant rather that there should be a judicious selection of seeds procurable at home. For instance: in the Gatineau Valley near Ottawa, there lived a farmer who had five daughters. He sent these girls into the wheat field one day and they selected and cut off with their shears the big heads of the ripening grain grain—those which were nearest ripe. These heads were threshed and the bigger seeds were then selected to the amount of a bushel. This was sown the following year and the product saved for seed. By continuing this process the farmer made a reputation for his wheat. Farmers from all the country round about went to him for their seed and paid him good prices, the result being that he became a prosperous and rich man, and lived to win a prize at the Paris Exhibition for the best wheat in the world. In P. E Island the farmers ought to grow oats, wheat and barley out of their biggest heads. In respect to potatoes the biggest and smoothest potatoes should be put aside for seed. He advised the setting aside of a portion of land each year for the growing of seeds for the following year. This portion of land should not be too rich, but it should be clear of weeds and in good cultivation. If his advice was generally adopted he had no doubt that the products of Prince Edward Island would be doubled in five years. He did not wish to be considered a prophet. He had good grounds for his statement. Just as surely as his prediction was verified that there would be twenty-five cheese factories in P. E. Island in five years after the first one was started, just so surely would the products of the Province be doubled if his advice was followed in regard to the selection of seeds. This was not guess-work—it was in accord with the history of agriculture. He would not manure the land selected for the seed plot. It never pays to manure for grain. Manure for clover and corn, and other things for which it is desirable to obtain large stems and leaves. Don't manure for grain. Manure for clover and corn and roots, and sow your selected seeds, without manure and you will obtain the best results. By having larger products of the fields you will be able to get more out of the dairy, and make larger profits in other directions. After introducing Professor Macoun as one who probably knew more about the growth of the potato than any other man in America, Professor Robertson concluded amidst applause.

Professor Macoun said that he had been connected with the Central Experimental Farm at Ottawa for the past eleven years. But this was his first visit to Prince Edward Island. Having been lately promoted to the position of Horticulturist at the Farm, he hoped in the future to be able to see the farmers frequently. Professor Macoun described briefly the various experimental works that were being carried on in addition to the distribution of seeds and information for the farmers of Canada at large. There are six hundred varieties of apples at the farm as well as many varieties of cherries, plums, grapes, strawberries and other small fruits. Experiments are also being made in the growth of timber trees, the planting of which will ere long be needed in Ontario if not here, and also in respect to ornamental shrubs and flowers. A thousand varieties of vegetables have been tested as to their fitness for cultivation in Canada. This year he had caused a list of the vegetables giving the best results to be published for the benefit of farmers. The list will be re-published with alterations, according to the results of experiments, year after year, and it is hoped that the farmers of Canada will be benefited thereby. With regard to potatoes he had conducted a large number of experiments. As to soil it has been discovered that the most suitable was a sandy loam, well drained. As to the preparation of the soil—the more careful and thorough the cultivation the better the results. At the Experimental Farm, land for potatoes is first ploughed in autumn to the depth of seven or eight inches, and harrowed. It is cross-ploughed in the spring, then harrowed with a spring tooth harrow and then with a smooth harrow. It is important to have the land thoroughly loose so that the tubers may easily push their way through the soil. In planting potatoes the land is drilled. For seed it has been found advisable to select large and smooth and well shaped potatoes. Keep on growing from such potatoes and improvement will result. Just before the young plants come through the ground the smoothing harrow is again used to kill the germinating weeds on the surface of the land. It has been found important to keep the land frequently stirred by a cultivator throughout the summer season. This lets in the air and preserves a large amount of moisture in the soil. We do not hill up our potatoes, finding that they do better in the summer drouths. But in this Province hilling up may be all right. We put the six inches into the soil and leave the ground level, so that the plants will be exposed as little as possible to the day hot winds that prevail in Ontario during summer. As soon as the bugs begin to appear, we spray with Paris Green. We do not wait until a portion of the leaves of the plants have been destroyed. The leaves are the lungs of the plant, and you cannot have large and good potatoes if the leaves of the plant are partially destroyed. For the blight, when it appears, we use Bordeaux mixture, adding also, when necessary, Paris Green for the bugs—thus killing two birds with one stone. In Ontario, last year potatoes were a poor crop, averaging only 84 bushels to the acre; at the Experimental Farm the average was 240 bushels to the acre—making all the difference between a losing crop and a paying crop. In 1897 we got a sample of the McIntyre potato and planted it with other varieties under the same conditions. The result was that it stood 65th on the list. That is to say there was 64 varieties of the potato which gave a better return than it. The McIntyre may do better here than in Ontario; but it would be well for the farmers here to try other and fewer varieties. The McIntyre is a coarse, rough potato. In Ontario we should call it a pig potato. Here (exhibiting them) are other varities.

A voice.—"What are the names?"

Professor Macoun.—"There are the "Carmen No. 1," the "Lake Puritan," and "American Wonder."

A voice—"Not worth a curse." (laughter) "No sir, no good here whatever."

Professor Macoun was sorry to hear this report, as it had been found in Ontario that they were large and smooth, good in quality, keep well and scab very little, while they will peal with much less loss than the McIntyre. It was to be noted that the best part of the potato—the starch—was nearest the eye, and this was cut away largely in peeling the McIntyre potato. However if the McIntyre was found to do better here than any other variety, by all means hold to it. (Applause.)

(A number of farmers here made remarks concerning the samples of seeds obtained from the experimental farms and other matters, and many pointed questions were asked, bearing upon practical farming. These were promptly answered by Professors Macoun and Robertson, but we are compelled to hold our report of these until next week.)

ILLUSTRATION STATIONS.

Professor Robertson resumed his lecture, pointing out than an experimental farm, for which a desire had been expressed would be expensive, and was chiefly valuable for research work, requiring a trained staff of scientific and experienced men, and carried on for the purpose of establishing principles. For instance, the McIntyre potato has deep eyes, around which the starch,—the nutritious part of the potato—is placed, while the core is lacking in nutrition. That is a principle that applies to potatoes the world over. Every particle of starch in every potato that ever grew, comes from the air through the leaves of the plants. You can't possibly have good potatoes if the leaves of the plant are eaten off. That is another principle. It seemed to him unnecessary that the Province of P. E. Island should go to the expense of an experimental farm. Its purpose would be equally well or better served by means of "Illustration Stations." Illustration Stations, the Minister of Agriculture had authorized him to say, would be established in the Island the coming season. These "Illustration Stations" would be an object lesson for all the farmers who pass by as to the results of planting certain different varieties of seeds, and cultivating the land in certain different ways—and could not fail to benefit the farmers immensely, as they would be able to see and learn with their own eyes, as the French farmers can. Human beings, young and old, learn more by means of illustrations which they can see, than by reading. This is especially true of the young, for whose benefit he would like to see what are known as

"EGG-SHELL SCHOOLS."

To these the pupils bring, on a certain morning, each an egg-shell. The teacher provides the soil from which each fills his egg-shell, and explains what it is composed of. Then on gets another day the teacher (say) an oat-seed, and explains the properties of seed. Each pupil, then, perahps plants a seed in his egg shell. After a day or two he is instructed to add a little water to his soil. If he should fill the shell full, the seed will die and an opportunity is then afforded to explain how it is that a seed drowns in the soil. In the shells which contain enough, just enough water, for the seed, the young plants soon germinate, and the teacher has an opportunity to apply an object-lesson as to the properties and uses of moisture in the soil and roots, stems and leaves in the plants. In this way information of the highest importance to farmers—information which many have not gained—is afforded the boys and girls in the schools. They drink it all in, and it becomes impressed upon their memories. Such schools would be beneficial to the youth of this Agricultural province.

Professor Robertson proceeded to show why he thought the farmers of Prince Edward Island should go on to feed chickens. He said that he had observed that cold ham and chicken is now more generally called for at restaurants and for evening meals than any other dish, and he had, while in England, obtained information which he went on to detail. The report of this we are compelled to hold over.

FRUIT GROWING.

Professor Macoun said that the more he saw of the Island the more he was convinced that it was destined to become a great fruit-growing country. But, farmers, to obtain good results even here, must plant their trees in good soil—soil that is naturally good as well as highly manured. More than that the soil should be kept good so long as the trees are growing. The soil should be also well drained. As to planting the trees should be at least 30 feet apart each way. If it be thought that too much soil be occupied by the growing apple trees, other quick growing trees may be planted in the space. Plum or cherry trees will yield a number of crops; and may be cut down when more room is wanted for the apple trees. Room is needed not only for the development of good apples, but also to enable the farmer to spray his trees in order that insects which infest the trees may be destroyed. When planting get the best varieties of apples—those which have been found to be best adapted to our soil, those which will sell to the best advantage in the English markets. Buy the young trees from responsible nurserymen rather than from outsiders.

Professor Macoun here added particular information as to the grafting of trees and showed how grafting is done,—and said that he would be happy to afford additional information.

Short, forcible and eloquent addresses were then delivered by Mr. Dillon, Senator Ferguson and Hon. Mr. Farquharson.

On motion of Senator Ferguson, seconded by Hon. Mr. Farquharson, and supported by Dr. Darrach, the unanimous thanks of the meeting were voted to Professors Robertson and Macoun.

OTHER MEETINGS.

A meeting was held at Summerside on Tuesday evening; and on Wednesday meetings were held at O'Leary and Alberton. All were attended by large numbers of the farmers of the respective neighborhoods, and were successful in every respect. THE EXAMINER will report as soon as possible.

Among those who accompanied Premier Farquharson and the Professors to O'Leary and Alberton yesterday were Senator Ferguson, Mr. Dillon, High Sheriff Gaffney, Hon. Mr. Campbell, Mr. J. H. Bell, M. P., Mr. Sharpe, Superintendant of the P. E. I. Railway, Messrs. Bent, Nash and Cotton of the press; H. Houle, W. C. Lee, John Moore, Cyrus Morris, James Johnstone, Long River; Alexander Campbell, Thomas Tuplin, D.A. Sharp, Ewen Clarke, J. A. Mathieson, D. Montgomery, Thomas Johnstone, Summerside; Thomas McAllister, John McKinnon, John Curtis, Marcus Deacon, S.E. Gallant, Murdock McLeod, H. R. Crockett.

NOTICE.

NOTICE is hereby given that an application will be made to the Legislature of the Province of Prince Edward Island, at its next Session, for an act to vest in the City of Charlottetown, the title to all that tract, piece or parcel of land, situate lying and being in the City of Charlottetown, being Town Lots numbers Sixteen (16), Seventeen (17) Ninety Three (93), Ninety-four, and part of Town Lot No. (18) in the 4th hundred of Town Lots, in Charlottetown, being the property known as the West Kent Street School land and premises.

Dated at Charlottetown this 1st day of March, 1899.

JAMES WARBURTON,
Mayor of Charlottetown

H. M. DAVISON, City Clerk.
52—dy 4m & R. Gaz.

TO LET.

About 43 acrs of land between the Upper and Lower St. Peter's Road, adjoining the Estate of the late Ralph Brecken. Apply at the office of the Connolly Estate, Queen Street.

A. A. McDONALD,
W. W. SULLIVAN,
ARTHUR PETERS,
Trustees late Owen Connolly

Feb 22—eod tf