

that junior matriculation be asked, and that all examinations for Ontario practitioners be under the control of this association."

Dr. Campbell, mayor of the city, gave a very pleasant address of welcome, making neat reference to similarity of work in which they were engaged, and the need of continued progress.

Professor Sweetapple read an instructive paper on the treatment of tetanus (lockjaw), both in human beings and animals, recommending large doses of carbolic acid and glycerine, given hypodermically, quoting many authorities who had seen good results from this treatment.

A paper on "Thrombus," which was well received, was read by Dr. Wilson, of London.

Richard Gibson, of Delaware, referred to the early days, when the cradle and scythe were the farmers' implements, and when there were no veterinary surgeons, though many who were called "hoss doctors," and went about with fleams in their pocket, which were generally used. He spoke of the great change which had taken place in both callings, and how diseases whose cause was formerly unknown were now successfully combated.

A valuable paper on "The Veterinarian," by Dr. C. H. Higgins, of Ottawa, was read by the local secretary. He should remember the dignity of his calling, and to perfect himself in it he well read, and strive by his own observation to advance knowledge in his own science. He should not place too low an estimate on his own services. He should interest himself in the community in which he lives, and be ready to advise regarding ventilation, sanitation, water supply, etc.

Capt. T. E. Robson, Ilderton, also addressed the convention, showing the importance of the association and the necessity of co-operation between the veterinarians and stock-breeders. He blamed the latter for sometimes tinkering with a case until too late, and then finding fault because the vet. could not then effect a cure.

Before closing it was decided, on motion, that the midsummer meeting of the association be continued, time and place to be decided at the annual meeting in Toronto.

Maritime Rainfall and Crop Notes.

Summer climatic conditions, so far as rainfall is concerned, is quite variable in the Maritime Provinces. Some sections may have plenty and to spare of rain, while others suffer from drouth. The local distribution is variable also in different sections, and places having a superabundant supply one season may lack the necessary amount for a maximum crop the next. The spring and fall rains are quite general, and in the main are evenly distributed throughout the provinces. The summer rains are inclined to be more local; therefore, the rainfall at the Experimental Farm, Nappan, for the month of July does not accurately represent the precipitation from a Maritime standpoint, for very few places have had as little rainfall during the month as obtained at Nappan.

Owing to our proximity to the sea, one would naturally suppose that there would be little likelihood of crops suffering for want of rain. Such, however, is not the case, and, as a general rule, crops are very materially reduced on this account. As compared with the past two years, the rainfall at the Experimental Farm, Nappan, has been during the past three months as follows:

	1905.	1904.	1903.
	Inches.	Inches.	Inches.
May	3.02	1.76	.68
June	3.30	1.74	2.29
July	1.56	2.15	2.07

Experiments have been carried on here during the past two years to determine the moisture contents of soils when growing crops, as compared with that given clean cultivation. This work was undertaken for the purpose of obtaining information as to how much grain or grass crops would be liable to injure the fruit tree and crop owing to the ground being dried out by these growing crops. The results from last year's work in this line were quite striking. The cultivated plot contained on the 21st July, 20.54 per cent. of moisture, and that where winter rye was grown, 7.46 per cent. Where oats were sown June 20th, the soil contained on August 4th, 9.45 per cent. of moisture, as compared with 18.11 per cent. at the same date in the cultivated plot. The results this year are quite as conclusive, so far as the work has progressed. On the 17th of July the cultivated plot contained 15.65 per cent. of moisture; where oats were growing 11.02 per cent., and where timothy and clover were growing, 8.08 per cent.

The hoed crops where proper cultivation was given, even with this dry July, have not suffered materially. The trouble, however, seems to be to get this matter of cultivation and its importance clearly before the farmer. It will be seen from the above that orchards in grass or grain crops would necessarily suffer from lack of sufficient water to make proper wood growth, and for a proper development of the fruit. Knowing as we do how very materially a dry spell will reduce our hay or grain crop, why should we take chances of a reduced root, vegetable, corn or fruit crop by neglecting to give proper cultivation, when cultivation, as shown by these experiments, will overcome a shortage in rainfall by conserving the soil moisture, through producing a fine earth mulch, which prevents its evaporation.

W. S. BLAIR.

August 8th.

Agricultural Lectures at Toronto Exhibition.

Lectures will be given each afternoon, beginning August 30th and ending September 8th, inclusive, in the dairy building, at the Canadian National Exhibition, Toronto. Most of these lectures will be delivered by representatives from the Agricultural College, Guelph. The Professors have not the opportunity which they should have to address gatherings of farmers, and this is an occasion that the Department is glad to take advantage of, to bring their work before the farming community. Arrangements will also be made, through the kindness of Mr. A. McNeill, Dominion Fruit Commissioner, for demonstrations in the packing of apples, peaches, pears and plums, on the 4th, 5th and 6th of September at the exhibition, either in the dairy building or the fruit building.

LECTURES IN DAIRY BUILDING (2.30 p.m.).

- "Bacteria in Agriculture"—Prof. F. C. Harrison, O. A. C., Guelph; Wednesday, August 30th.
 - "Cattle Feeding"—W. P. Gamble, B.S.A., O. A. C., Guelph; Thursday, August 31st.
 - "Drainage of Farm Lands"—Prof. J. B. Reynolds, O. A. C., Guelph; Friday, September 1st.
 - "The Fruit Industries of the Dominion"—A. McNeill, Chief, Fruit Division, Ottawa; Saturday, September 2nd.
 - "Farm Forestry"—E. C. Zavitz, Lecturer in Forestry, O. A. C., Guelph; Monday, September 4th.
 - "Our Live-stock Interests"—Prof. G. E. Day, O. A. C., Guelph; Tuesday, September 5th.
 - "Advanced Practical Agriculture"—Prof. C. A. Zavitz, O. A. C., Guelph; Wednesday, September 6th.
 - "The Duties of the Patrons of Factories and Creameries"—G. H. Barr, London; Thursday, Sept. 7th.
 - "The Requirements of the Dairy Markets of the Old World"—Prof. H. H. Dean, O. A. C., Guelph; Friday, September 8th.
- Monday, 4th—Mr. Boies in fruit building.
Tuesday and Wednesday, 5th and 6th—Mr. Boies in dairy building.

TENT FOR AGRICULTURISTS.

A tent will be erected on the exhibition grounds this year as usual, for the accommodation of members of farmers' institutes, live-stock associations, agricultural societies, fruit-growers' associations, etc. The location will be the same as last year; all agriculturists should use it, as in past years. On September 6th and 7th a convention of farmers' institute officers and lecturers will be held, most of the time being devoted to discussions. Each institute is requested to send at least one delegate, and all officers and members will be welcomed whether they have been appointed to represent their respective districts or not. Hon. Mr. Monteith, Provincial Minister of Agriculture, will address the convention, and Superintendent Putnam will review the institute work of the past two years, and outline proposed work. Among the subjects for discussion and addresses will be the following: "The best way of advertising institute meetings and canvassing for members"; "The formation of classes or branches in each township, for the holding of meetings, to be conducted and addressed for the most part by local talent"; "Demonstration classes, with special reference to live-stock judging classes"; etc.

The records show that the meetings in some ridings during the past year were more largely attended than ever before, and the interest taken was greater than usual. The membership in such institutes is as great, and in some cases greater, than that of former years. In other instances, however, there seems to be a lack of interest on the part of those for whose benefit the meetings are specially arranged, and the Department is anxious to have the opinion of the institute officers as to the best methods to be adopted to further the interest of this itinerant agricultural educational work.

The secretaries of institutes should send the names of delegates appointed at once, in order that programmes of the convention may be mailed to them. It is to be hoped that every farmer will take a personal interest in a work which has done so much to bring science and practice into closer relationship, and has been a means of disseminating lessons of value to the farmer. There is no doubt but that the improved methods in agricultural practice are due in a great measure to the work of the institutes, and there is no reason why these organizations should not be as potent a factor in the future as in the past. Come prepared to discuss ways and means for improvement.

The Ottawa Exhibition.

The Central Canada Exhibition, at the Capital City, comes off this year on the dates September 8th to 16th. Entries close Sept. 6th, and live stock must be on the ground on Monday, Sept. 11th, at 10 a. m. Entries should be addressed to the secretary, Mr. E. McMahon, 26 Sparks Street, Ottawa, who will mail prize-list and blank entry form on application.

The prize-list for this year is, as usual, a liberal one. Substantial cash prizes are being provided in a long list of sections for all the principal breeds of horses, cattle, sheep, swine and poultry, as well as for a great variety of other farm products. Besides the generous cash prizes, a list of over 35 gold medals, as special prizes, donated by private individuals and business firms, are offered in the live stock and other classes. The accommodation at Ottawa is second to none in Canada for the comfort of stock, for the convenience of exhibitors, and for the satisfaction of visitors in viewing the exhibits, while the kindness and

courtesy of the officers and the superintendents of the departments is acknowledged to be unsurpassed, if equalled, by those of any other of the leading exhibitions. Ottawa is a beautiful city, growing more attractive every year, as in addition to its grand natural scenery, its pleasure parks and drives are being improved by an expenditure by the Government of over \$60,000 a year. The Parliament and departmental buildings, the Central Experimental Farm, the great lumber and other manufacturing concerns, are sights well worth seeing, and a visit to the Capital and the exhibition is an education to a young person which should not be denied to any, since the railway excursion rates for the return trip are within the reach of all. Look out for the announcement of these special rates, and plan to take in the Ottawa Exhibition.

Turnip Culture in New Brunswick.

The glorious month of July is gone. It brought all the heat we so much needed, but very little rain—none but thunder showers, and they have been somewhat partial. The heat has brought the crops well forward. If August be nearly as good, the cold spring will be quite forgotten. About half of the hay is cut. I should say it will be about 75 or 80 per cent. of a good crop. Wheat looks well, but rather thin. The experimental farms are doing good work in finding seed suited to our short season and moist climate. The Local Government gave a thousand-dollar bonus towards the building of a first-class flour mill in each county in the Province. These mills are a great improvement on the Old Country flour mills, and have done much to encourage the growing of wheat. Unfortunately, the Victoria County mill was burned lately. This will be a great loss to the farmers in this district, unless quickly replaced. After hay, oats are our great crop. Early and late sowings are thin, and the late generally short. Middle sowings are good crops. Barley is getting every year more into favor. It looks well—some pieces nearly ready for harvest. Peas are an extra crop. Buckwheat promises fairly well. There is every appearance of a great crop of roots of all kinds. Turnips, carrots and potatoes always do well.

If the institute lecturer had spent the time instructing the N. B. farmer as to the cultivation and storing of turnips he spent on the cultivation of corn and the silo, every farmer would have seen at once he was on practical grounds, and that he understood what the country was adapted for. Only the scarcity and cost of labor, and the difficulty men struggling with new farms have in getting sufficient cellarage to store the turnips, prevents this becoming a rich beef country. Buchan, in Aberdeenshire, Scotland, sends, or used to send, to London the highest-priced Christmas beef sold there, fattened entirely on turnips and oat straw. Animals with knobs of fat on each side of the tail were classed there as the old style hog is here, fit food only for sailors going to the Arctic. Turnips, I think, is the only crop we grow that will quite equal the same crop in Scotland; which became one of the most advanced agricultural countries with the advent of the turnip. The first thing that one who decides to farm a certain piece of land would be supposed to do, would be to find out what that certain soil in that particular climate would grow best, and set to work to cultivate that. Well, we knew what crops we could grow best, but having to contend with the difficulties mentioned, we were willing to try anything recommended by good authority; being assured by such that corn and wheat bran were the best feeds, especially corn, which we were assured we could grow if we went right about it. It was soon proved that our season was too short for corn, and the atmosphere sometimes too much moisture with the heat to make good wheat. Some few imported these feeds, but generally found the cost beyond the profit. Some have good meadows, and feed quite a number of cattle on hay and oats; and there are, of course, many farmers who make very comfortable homes by feeding all that grows on their farms to sheep and cattle upon it—some dairying, some principally feeding beef cattle and sheep. But the greater number just makes a shift to live by feeding a few cattle on the oat straw, with a bite of hay now and again, when it looks doubtful of their being able to come through on the straw. The hay is intended to be sold, all that can by any means be saved from "the brutes"; and as animals so fed don't pay for much care or time spent on them, the winter is generally spent lumbering.

Those who have seen the numbers of the finest cattle in the world fed on the turnips and straw grown on a hundred acres in Scotland, cannot but be impressed with the idea that we should be able to come nearer that high standard, seeing we can do pretty nearly as well in these crops as the Scottish farmer can. Cattle are bringing good prices; lambs in great demand. We usually sell our lambs about the 20th July at \$3.25 all over. Eggs have not gone under 15 cents; over a few days this season. There is a very poor crop of fruit of all kinds. Notwithstanding the great appearance made at blossoming time, apples will not be one-fourth of a crop in this neighborhood.

In these letters there will no doubt be a good deal of grumbling; some may think painting of the worst side. When one is presenting the case in the "Farmer's Advocate," it is his duty to give it without reserve.

W. L. McPHEAIL.

N. B.