

Fairs, assured the meeting that the competition would be extended this year, on account of the great value of this year's experiments. A bulletin, announcing the results and aims of this work, is issued by the Seed Department, Ottawa.

EXPERIMENTS WITH ROOTS.

Prof. C. A. Zavitz reported the mangel crop in Ontario increasing, yearly, rapidly. The Yellow Leviathan gave about two tons an acre more than the second-best mangel obtainable, and exceeded it nearly 45 per cent. in comparative value. He could not too strongly emphasize giving this variety a trial. In Swede turnips experiments, Carter's intermediate was easily best in quality and yields. The Red-top White Globe fall turnip was first.

The Japanese Common and the Japanese Panicle millets have proved exceptionally good for fodder in a dry season, such as we have experienced. It is hard to obtain seed true to name, as seedsmen have the names of the varieties mixed.

It was found there were 64 varieties of potatoes grown extensively in Ontario. Rural New Yorker No. 2 was the most extensively grown. Empire State was second in acreage. Of the late varieties, the Empire State surpassed all kinds of early, medium and late varieties in yield and quality. A greater acreage of this variety should be grown. A potato immune from blight and rot, possessing good quality and yield, has not yet been found. Of the medium varieties, Burpee's Extra Early was best in quality and yield. Of the early kinds, Early Fortune was the most popular.

Of the 50 varieties of sweet corn tested at the O. A. C., the Golden Bantam is certainly the best for home use, and is the very choicest quality.

EXPERIMENTS WITH FERTILIZERS.

As the experimenters are becoming much better educated and efficient, the experiments are increasing in value. The fertilizer experiments in potatoes in 1907 are the best yet. The following table summarizes the results. The "cost" column represents the cost per acre, without allowance for handling, etc. The value to be placed on farmyard manure varies, and can be estimated to local standards. All fertilizers were applied when the potatoes were planted, by mixing it broadcast in the surface soil.

Average Yield per Acre—Potatoes.			
Fertilizers.	Weight Lbs.	Cost.	1 Year.
			22 Tests.
Unfertilized			107.2
Nitrate of soda	160	\$4 80	138.6
Muriate of Potash	160	4 00	144.3
Superphosphate	320	3 92	146.3
Mixed fertilizer	213	4 24	152.9
Royal Canadian	320	5 60	149.0
Potato fertilizer	320	5 52	149.1
Cow manure	40,000	6 00	158.8

EXPERIMENTS IN FRUIT-GROWING.

Prof. H. L. Hutt reported that Clyde and Tennessee strawberries have been the heaviest yielders, and splendid ones of the best early varieties.

Among the raspberries, the favorite varieties have been Marlboro for early, and Cuthbert for main crop; while Golden Queen is one of the best yellow varieties, and Columbian the best purple-fruited variety. Of the black raspberries, Gregg has been the most productive, but it is not hardy enough for the northern sections of the Province. Older is one of the hardiest of the black raspberries. In pruning raspberries, it was recommended to cut out all of the old canes after they have fruited, and thin out the new canes to five or six of the strongest.

Thimbleberries are best adapted to southern sections of the Province, and have proved more or less of a failure where tried in northern sections. Agawam is one of the hardiest varieties, while Kittitinnny is the favorite variety for southern sections.

Red Cross and Victoria are the most productive red currants. Fay is a favorite variety because of its extra large fruit. The White Grape is the best of the white currants, and is much prized for home use. Lee's Prolific has been one of the most productive of the black varieties, although Black Victoria, a newer variety, has made a good record.

The most productive varieties of gooseberries have been Pearl and Downing. Whitesmith, one of the English varieties, bears the largest, finest fruit, but in some seasons it is subject to mildew, with which the other varieties of American origin are not affected.

The early-ripening varieties of grapes, selected for northern sections, were: Champion, Worden, Winchell, Delaware, Lindley, and Moyer. For Southern Ontario, the varieties selected were: Concord, Wilder, Niagara, Lindley, Brighton, and Vergennes. This includes some of the best varieties of each color. These should begin bearing in two or three years from time of planting.

Apple trees were sent out last year for the first time. For Northern Ontario, the varieties distributed were: Transparent, Duchess, Wealthy, MacIntosh, Scott's Winter, and Hyslop Crab. For the trees in Northern Ontario, it is recommended to train them to low heads in order to avoid injury from sunscald. In Southern Ontario, where this trouble is not so common, trees of the ordinary standard-sized trunk may be grown. The varieties selected for Southern Ontario were: Primate, Gravenstein, McIntosh, Blenheim, Rhode Island Greening, and Northern Spy. This makes an excellent selection of varieties to cover the season, from the earliest to the latest.

FARM FORESTRY IN ONTARIO.

Prof. E. J. Zavitz, of the O. A. C., reported about 200,000 plants, composed chiefly of White pine, Scotch pine, Jack pine, Norway spruce and Black locust, sent out last spring for co-operative experiment. Scotch pine and Black locust did best on the poorer soils. The Department is prepared to make planting plans, and furnish planting material free to persons having waste lands; applicant to pay cost of transportation of trees and doing the actual work of planting. For planting in spring of 1909, applications should be in before June 15th, 1908.

THE MINISTER OF AGRICULTURE SPEAKS.

The Hon. Nelson Monteith spoke in complimentary terms of the new president, Mr. Brodie. He was pleased to observe the growing regard of the farmer for his occupation, and to render it assistance. He counselled the students, when they leave the O. A. C., to make themselves felt for good in their respective communities.

The high-school agricultural movement will require the services of more men, and will be extended. The school gardens will be brought under Departmental control and encouraged. By giving the youth an agricultural tendency, the status of the great profession of agriculture will be raised on a par with the so-called learned professions.

At the evening's banquet, in introducing the chief guest of the evening, Dr. Falconer, President of Toronto University, Mr. Monteith stated that the Department of Education and Agriculture were proceeding, hand in hand, to promote the study of agriculture in the public school. It is possible to train school children to remember their profession in the days of their youth before the time comes when, having been wrongly trained, they shall say they take no pleasure in agriculture.

President Falconer complimented the O. A. C. as a world-famous institution, and asserted his belief that the hope of the country lay in its rural-grown population. He felt that no great university could survive without having a rural population to draw upon.

NAMING HOMES AND PRODUCTS.

President Creelman, in his ten-minute address, took one topic only, viz.: "The Naming of the Farm Home." The value of a name to live up to was proved, exemplified and strongly impressed. More pride in the profession is required. Name the farm, name the products, and improve the place, and increase its profits. An apt suggestion offered the O. A. C. students was to have letter-heads printed, with the name of the farm and owner, and sent as a Christmas present to their parents.

FEEDING-STUFF CONTROL.

W. P. Gamble reviewed the subject of "Legislative Control of Feeding Stuffs," which has received considerable attention from this Association in years gone by.

Investigation and analyses amply justified the demand for legislative oversight in order to the protection of farmers. At the annual meeting last year, a resolution was passed which advised as follows:

(1) That each package of commercial feeding stuffs should be labelled with the percentage of protein and fat contained therein; (2) That the term bran should be legally defined; (3) That copies of the resolution should be sent to Farmers' Institute meetings to be signed by the members, and forwarded to the Minister of Inland Revenue as a petition. A short time ago he wrote Mr. Gerald, Deputy Minister of Inland Revenue, asking what action had been taken or was in contemplation. In his answer, he states that the matter is receiving the consideration of the Honorable the Minister of Agriculture and of Inland Revenue, but just what action was in contemplation he was unable to say. In conclusion, Mr. Gamble moved the following resolution: That this meeting approve of the action taken at last year's annual meeting, and that we again urge upon the Honorable the Minister of Inland Revenue the desirability of a law enacted on the lines of last year's resolution. Carried.

It was claimed that carloads of weed seeds and screenings were sold from the elevators at Fort William and elsewhere, and mixed with a corn or bran base, and sold throughout the East, and men were actually taking credit to themselves for starting this industry. It was also asserted that sawdust was being palmed off as bran.

AGRICULTURAL INSTRUCTION.

Mr. C. C. James, Deputy Minister of Agriculture, gave an address on "Agricultural Instruction" preliminary to the reports of the six pioneer agricultural high-school teachers. He reviewed the attempts to introduce the study of agriculture into the public schools from the time when Dr. Egerton Ryerson issued his first excellent book on the subject, and it failed. Subsequent works also failed to give the great subject of agriculture a standing in the school course in any way commensurate with its importance. There is nothing of agriculture in the schools of Ontario today, except nature-study. It was now proposed to begin at another point, and gradually lay a basis that would finally carry agricultural teaching through the whole school system. Contemporaneous schemes were proposed by the Ministers of Agriculture and Education to promote this kind of education. The two propositions submitted were finally crystallized into a plan of providing instruction in the high schools, and six instructors, graduates of the O. A. C., were appointed for the work. It was not expected that

classes in agriculture would be very popular in the high school, so an office was established at each center, and the instructor encouraged to get into touch with the farmers, and influence them gradually to the value of the new education. The reports of the instructors given immediately after Mr. James' address showed that the result was as anticipated. The movement received sympathy from the best minds of the several districts, but was not greedily taken hold of by the farmers generally. As many as eight students were obtained in some schools, and none at all in others. Some of the instructors wished, at times, to be removed from this vale of tears, but they all kept on, and worked faithfully and well, and, even in the three months since the work was inaugurated, have accomplished much towards making this high-school teaching and agricultural office center a permanent institution, and one that will eventually be established in every county in Ontario. They have used various methods to accomplish their results. Nearly all are establishing short courses, which will popularize and pave the way for agricultural study.

R. S. Hamer, of Perth Collegiate, has eight students taking the agricultural option, a course equivalent to the first year at the O. A. C. F. C. Hart, of Galt, has eight, but they are mostly city pupils, who will train as specialists in poultry, entomology, etc. F. H. Reed, of Lindsay, has worked hard among the farmers, and is assured of a good attendance at the extensive short course to be shortly started. A. McKenny, of Essex Co., has just held a preliminary short course, attended by sixty, and is assured of a good number for his winter course. W. A. Munro, of Morrisburg, had to go out to the highways and hedges and compel them to come in, and, though at first he was received in "the same manner as a bookseller or pedlar," he has been welcome on better acquaintance, and is really getting a firm hold on the situation. Where there was not an interested person in attendance at his first meetings, he now has large enthusiastic gatherings at some points, and the work is growing. R. E. Mortimer, of Collingwood, has taken the botany and zoology subjects in the institute, and thus gets in touch with the pupils into whom he instils an "agricultural tendency." A good plot for experimental purposes has been secured; several short courses at various points are being arranged for, and much agricultural leaven introduced at teachers' meetings.

The discussion revealed great satisfaction over the excellent beginnings made in this work, and encouraged the "boys" who were so efficiently working out the difficult problem.

On Monday evening the ex-students were entertained at the home of President and Mrs. Creelman, of the O. A. C.

The election of officers resulted as follows: President, G. A. Brodie, Bethesda; Vice-President, J. O. Laird, Blenheim; Secretary, Professor C. A. Zavitz, O. A. C.; Assistant Secretary, Lecturer J. Buchanan, B. S. A., O. A. C.; Treasurer, Professor H. L. Hutt, O. A. C.

A resolution was unanimously adopted, asking the Minister of Agriculture to inaugurate a series of experiments to discover the value of bees as pollinating agencies for fruit blossoms.

EXPERIMENTAL FARM FOR MEDICINE HAT.

As intimated in these columns some weeks ago, a movement was under way for the establishment of an experimental farm at Medicine Hat for the demonstration of dry-farming methods, along the line advocated by Professor Campbell. The Agricultural Society and Board of Trade procured land within two miles of the city. In addition, the Canadian Pacific have promised a grant of one hundred dollars. Hon. W. T. Finlay, Minister of Agriculture for Alberta, is lending to the scheme his personal support, and promises substantial Government aid for the project. He advises the placing of such a demonstration farm in the hands of reliable, practical men, in whom the Agricultural Society and the Department of Agriculture would have confidence. The work will likely be carried on under the direction of the local Agricultural Society.

FORTHCOMING EVENTS.

- Dec. 18th to 20th—Nova Scotia Fruit-growers' convention, at Berwick, N. S.
- Jan. 6th to 11th—Eastern Ontario Fat-stock and Poultry Show, Ottawa.
- Jan. 8th, 9th and 10th—Eastern Ontario Dairymen's Association, Picton.
- Jan. 15th and 16th—Western Ontario Dairymen's Association, Woodstock.
- Jan. 28th to 30th—Nova Scotia Farmers' convention at Antigonishe.
- Feb. 4th—Annual meeting Dominion Shorthorn Association, in Toronto.
- Feb. 12th to 14th—Ontario Horse-breeders' Show, Toronto.
- May 4th to 9th—Canadian National Horse Show, Toronto.

New subscribers to "The Farmer's Advocate and Home Magazine" receive the copies for the balance of this year, including the Christmas number, so long as the supply of extra copies holds out, and all of 1908 for \$1.50.