

The Farmers' Technical School.

No other agricultural college in the world has a wider and more enviable reputation than the Ontario Agricultural College at Guelph, but it is yet comparatively little known by many whom it is intended to serve. At present, however, the College is enjoying a period of extension and prosperity unparalleled by any other educational institution in Canada. The principal cause of this is the installation of the Macdonald Institute and Manual Training School in connection with the Agricultural College proper. The inception of these new features in connection with the College was Sir William C. Macdonald's, and to carry out his plans he has already donated \$210,000 to be expended upon buildings and equipment. Another cause of the increasing popularity of the College course for farmers is a realization of the fact that, with equal natural endowments, the young man or woman with a liberal technical education is more capable of improving his conditions than another who has not received special academic and technical training. In other words, the farming community are coming to more fully realize the value of a trained mind in the solutions of problems that are constantly being confronted in farming operations. Incidentally, those in charge of the College are providing better equipment and more practical courses of study and experimentation. With these auspicious conditions, commodious buildings, modern equipment, and a public sentiment in its favor, the work and expansion of the Ontario Agricultural College during the next few years should be phenomenal.

At present, the heads of the different departments of the College are applying themselves to their several tasks with a diligence characteristic of modern men of affairs. The change in the presidency of the College, which took place some months ago, while it removed a man with a rare combination of executive ability, practical knowledge and scholastic accomplishments, also instituted a regime that will be characterized by more independent investigation among professors and a greater development of the individual, for President Creelman is a man who will not interfere with the work of others, but will give a free hand to his lieutenants and require results.

The experimental farm, of which Prof. C. A. Zavitz is in charge, is of particular interest at this time of the year. Nowhere in the world is more careful work done in testing varieties of grain, grasses, clovers, corn, roots, and all classes of farm crops, as is done on these plots. The thousands of excursionists who are thronging over the plots these fine June days cannot fail to secure much useful information concerning the characteristics of different varieties of crops. On such trips the visitor should carry a notebook and pencil, for before the stroll is completed there will be many facts imparted that the mind cannot retain. Plant-breeding is being taken up in earnest at the College by Mr. John Buchanan, an agricultural student working under the direction of Prof. Zavitz. As demonstrator in field husbandry he will deliver a course of lectures to the students next winter on his special subject. Mr. Zavitz considers that by selection the characteristics of a variety are fixed for all practical purposes five seasons after the first cross is made.

The work of the poultry department, under Prof. W. R. Graham, is in keeping with the importance to which this industry is attaining. The season has been unpropitious for young stock, but plans are laid for carrying out extensive experiments upon the question of wintering laying stock. Four pens are to be built this summer—one will be warm, another about like the average, and two quite open and cool. The pens will be stocked with Barred Plymouth Rocks, White Wyandottes and Orpingtons. An attempt will be made to discover the effect of warm and open pens upon the constitution of the fowl, upon the fertility of their eggs, and upon the relative cost of the eggs produced. The work will extend over about five years, but it is expected important results will be obtained.

Prof. H. H. Dean, as head of the dairy department, is maintaining his reputation as one of the foremost investigators upon his subject. Professor H. L. Hutt was unfortunate in losing a large number of apple, pear and peach trees, as well as raspberry canes, in the horticultural department last winter, but is renewing his plantation as quickly as possible. The growing of a large number of forest trees for distribution among the farmers of Ontario in the near future is now under way in charge of a new man on the staff, Mr. E. J. Zavitz.

A decidedly strong feature of the Agricultural College is its chemical department, with Professor R. Harcourt as chief chemist, and Professor W. P. Gamble as associate. At present a large amount of work is being done in soil analysis with the object of suggesting some treatment for the swamp soils of Ontario. Prof. Harcourt has also been asked by the Northwest Territories

Government to conduct analyses of Western wheat and investigations into its bread-making properties, the Territories paying chemists to do the actual work under Professor Harcourt's directions.

Greater interest in live stock is being aroused under Professors Day and Cumming, whose whole duties now are to be confined to the work of animal husbandry and the management of the farm. At present, Professor Day, in company with the Hon. John Dryden, is on a trip to the Old Land, where they will secure pure-bred stock to reinforce the herds and flocks of the College farm.

The work and scope of the new Macdonald Institute, under Prof. W. H. Muldrew, is a matter of great interest. The object of this newer education being inaugurated at Guelph is to give the young women of the country a technical education in housekeeping and all branches of domestic economy corresponding to that which the young men receive at the Agricultural College, and to fit public school teachers for the work of teaching manual training in towns and nature study in the country. Last winter these courses began, although the buildings in which the work is to be carried on were not completed, and if one were to judge of the ultimate usefulness and success of the Institute by the numbers taking the course the prospect is most assuring. A note of warning to young women of the country might be sounded just here. The Macdonald Institute is built particularly for the daughters of the farms, but admission cannot be refused to girls from the towns, and as the capacity of the school is limited, those intending to enter should get their applications in early to insure of acceptance. Already the town and city girls, realizing the



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Principal New Consolidated School, Guelph, Ont.

value of the course in domestic science, have begun making applications for entrance, so that unless the country lasses improve their opportunities early the classes at Macdonald Institute will be composed almost wholly of their city cousins. By September it is expected the residence building for girls will be completed, and all branches of the Macdonald Institute will be taken up in earnest. Both short practical and long technical courses are provided, so that the teaching will conform to the conditions of all classes.

On the College campus there is now being built one of the consolidated schools that Professor Robertson and Sir William Macdonald would like to see within reach of every child in Canada. The school at Guelph will serve four ordinary school sections, and will be under the principalship of J. W. Hotson, M. A. With all these educational features about the Agricultural College, surely the work of educating the young people of the farms will be capably carried out.

Opinions.

R. N. Mason, Norfolk, Ont.—We think it is the best agricultural paper in America.

W. J. Stockdale, Bridgeburg, Ont.—We appreciate very much your efforts in publishing the "Advocate" every week. It will bring you great success.

R. G. Kendall, Simcoe, Ont.—Enclosed find my renewal to the best farmer's paper. I like every department of it.

W. A. Ruthven, Simcoe, Ont.—Enclosed find my \$1.50 renewal subscription to "F. A." the best money the farmer can lay out.

The New Seed Bill.

As announced some time ago, Hon. Sidney Fisher has introduced a bill into the Federal Parliament at the present session, to be known as "The Seed Control Act." Realizing the importance of the bill, a meeting of a large number of interested seedsmen and others has been called for the 14th, 15th and 16th inst., to consult with the Minister on the following provisions of the Act:

1. This Act may be cited as The Seed Control Act, 1904.

2. This Act shall come into operation on the first day of July, 1905.

3. No person shall sell, or offer, expose or have in his possession for sale, for the purpose of seeding, any seeds or cereals, grasses, clovers or forage plants containing any seeds of the following weeds: Wild mustard or charlock, tumbling mustard, hare's-ear mustard, ball mustard, field pennycress or stinkweed, wild oats, bindweed, perennial sow thistle, ragweed, great ragweed, purple cockle, cow cockle, orange hawkweed or paint brush, ergot of rye, unless each and every receptacle, package, sack or bag containing such seeds, or a label securely attached thereto, is marked in a plain and indelible manner:

(a) With the initials of the Christian names, and the full surname and address of the wholesale or retail seller.

(b) With the name of the kind or kinds of seed.

(c) With the common name or names of the aforementioned weeds, the seeds of which are present in the seed sold or offered, exposed or had in possession for sale.

4. No person shall sell, or offer, expose or have in his possession for sale, any seeds of timothy, red clover, alsike, or any mixture containing the said seeds, in or from any receptacle, package, sack or bag upon which is marked "No 1," or any other designation which represents such seeds as of first quality, unless they are free from the seeds of weeds named in section 3 of this Act, and are also free from the seeds of white cockle, night-flowering catchfly, false flax, Canada thistle, ox-eye daisy, curled dock, blue weed, ribgrass, chicory, and contain out of every one hundred seeds not less than ninety-nine seeds of the kind or kinds represented, or seeds of other useful and harmless grasses and clovers, of which ninety-nine seeds ninety seeds must be germinable.

5. The Governor in Council may make regulations determining the maximum proportion of seeds of the weeds named in sections 3 and 4 of this Act, that may be tolerated in any seeds which shall, within the meaning of the said sections, be considered as free from the seeds of the said weeds.

6. No person shall sell, or offer, expose or have in his possession for sale, for the purpose of seeding in Canada, any seeds of timothy, alsike or red clover, or any mixture containing the said seeds, if the seeds of the weeds named in sections 3 and 4 of this Act are present in a greater proportion than three to one thousand of the seed sold, or offered, exposed or held in possession for sale.

7. The provisions contained in this Act shall not apply to:

(a) Any person growing or selling seeds for the purpose of food.

(b) Any person selling seeds direct to merchants to be cleaned or graded before being offered for sale, for the purpose of seeding.

(c) Seed that is held in storage for the purpose of being re-cleaned, and which has not been offered, exposed or held in possession for sale for the purpose of seeding; or

(d) Seed that is grown and sold by any farmer on his own premises, unless the purchaser of the said seed obtains from the seller at the time of the sale thereof a certificate that the said seed is supplied to him subject to the provisions of this Act.

8. Every person who, by himself or through the agency of another person, violates any of the provisions of sections 3, 4 and 5 of this Act shall, for each offence, be liable to a fine or imprisonment.

9. The person on whose behalf any seed is sold, offered, exposed, or had in possession for sale, contrary to the provisions of the foregoing sections of this Act, shall be prima facie liable for the violation of this Act.

10. Any person charged with the enforcement of this Act may enter upon any premises to make any examination of any seeds, receptacles, packages, sacks or bags of seeds, whether such seeds, receptacles, packages, sacks or bags of seeds are on the premises of the owner, or on other premises, or in the possession of a railway or steamship company, and may take any samples of the said seeds from any receptacle, package, sack or bag, for which samples the owner of the seed shall be paid in accordance with the amount of seed thus taken and its current value; and any person who obstructs or refuses to permit the making of any such examination, or the taking of any such samples of seeds, shall be liable to a fine or imprisonment.

11. Any inspector, informant or complainant who finds or suspects seeds to be sold, offered, exposed or had in possession for sale for the purpose of seeding, in violation of the provisions of this Act, shall take a sample from the said seeds and forward it to such person as the Governor in Council appoints as an official seed analyst, to examine and report upon any seed submitted for analysis under the provisions of this Act.

12. Any sample of seed taken for official analysis