

PRODUCTION

Department of Field Husbandry.—About 75 acres of the College farm at Guelph are set aside for field experiments with farm crops. This area is divided into about 2,500 plots. The experiments include tests with varieties of farm crops, selection of seed, hybridization, dates of seeding, quantities of seed per acre, methods of cultivation, application of fertilizers and manures, the production of grains and grasses in different combinations, etc. The results are issued from time to time in the form of reports, bulletins and newspaper articles. Not only do they furnish real information in regard to methods to be adopted, but the Field Husbandry Department has been successful in originating and introducing good varieties which have been of great value to the crop production of the province. The O.A.C. No. 21 barley has crowded out practically all other varieties until it is now grown in nearly every part of the province. The O.A.C. No. 72 oats are increasing very rapidly and are sure to be worth millions of dollars to Ontario. The O.A.C. No. 3 variety of oats, which is ten days earlier than the O.A.C. No. 72 variety, is especially adapted for mixing with barley when it is desirable to grow the two in combination. The experiments have shown that when the right varieties and the right proportions are used about 200 lb. of increase in grain per acre is obtained as compared with the results from either one grown separately. Other varieties which the College has been instrumental in originating, improving or, in some cases, in simply distributing are the O. A. C. No. 61 spring rye, Petkus winter rye, Rye or Rough buckwheat, Pearce's Improved Tree bean, Canadian Beauty peas, Ontario Variegated alfalfa, Grimm alfalfa, Salzer's North Dakota corn, Wisconsin No. 7 corn, Gold Nugget corn, Davies' Warrior potatoes, Empire State potatoes, Extra Early Eureka potatoes, etc. The experiments in Field Husbandry at Guelph, in association with the co-operative experiments on thousands of farms throughout Ontario conducted through the medium of the Experimental Union, are having great influence on the agriculture of the province.

Animal Husbandry Department.—This department has charge of the farm and all the stock including the dairy herd. Experiments are conducted every year with rations for cattle, sheep and swine. A system of Farm Cost Accounting is used for the purpose of evolving a system which can be applied to farms throughout the province. Each year in October an auction sale of surplus stock is held.

Department of Horticulture.—The work undertaken includes experiments with varieties of fruits, vegetables, shrubs and flowers; studies and research in plant breeding; co-operative experiments in summer pruning, top grafting and root pruning; the testing of Canadian grown vegetable seeds; the preparation of plans for the beautifying of school grounds.

Department of Chemistry.—Experiments in the chemical treatment of various types of soils at several points in the province are carried on. Plots for fertilizer experiments with different crops are maintained at the College and on the light sandy soils of Norfolk county. Varieties of wheat are milled and the flour tested to determine baking qualities. Many samples of soil, water, condiments, stock foods, fertilizers and spray materials are analysed and reported upon.