

also offered by the Faculty of Agriculture in the Faculty of Graduate Studies through which a student may proceed to the degrees of Master of Science in Agriculture and Master of Science; in a limited number of fields, work is offered at the doctorate level. The Faculty also offers a one-year or two-year diploma course in occupational agriculture, adaptable to the needs of individual students.

In co-operation with various branches of the provincial Department of Agriculture and under the auspices of the University Extension Department, the Faculty of Agriculture also offers a number of short courses which vary in length from one or two days to several weeks.

Section 3.—Land and Water Conservation*

Subsection 1.—Federal Projects

Twenty-five years have passed since the inception of the Prairie Farm Rehabilitation program in 1935 to deal with the immediate problems of drought and soil drifting which were then having a severe effect on agriculture on the Canadian prairies. Since that time many policies and projects have been undertaken, varying widely in nature and scope, but basically they have all had one objective—better land utilization and more efficient use of available water resources as a means of providing greater security and stability to prairie agriculture.

In this connection, much progress has been made and much valuable knowledge and experience has been gained on which to base long-range land and water conservation planning in Western Canada. This work has involved the introduction of those systems of farming, land use, and water supply that would provide greater economic security for the agricultural population on the prairies and, more recently, the development of larger and more comprehensive land utilization and water development schemes that will serve entire agricultural districts and prairie communities.

Cultural improvements have led to an almost completely new approach to the economics and practice of dryland farming. Techniques in soil management and methods of making more efficient use of limited supplies of available soil moisture have been developed and are in common use, helping materially to minimize the drought problem in drier areas. The development of assured farm water supplies throughout the drought region for domestic, stockwatering and irrigation purposes has also contributed greatly to a more stable agriculture over a wide area. In particular, the development of assured feed supplies through irrigation for the winter feeding of livestock and the provision of reserves of feed to carry livestock over periodic dry periods has given much greater stability to the livestock industry and has been a major factor in encouraging agricultural diversification in the plains region.

Finally, the permanent removal from cultivation of lands that have proven sub-marginal for cereal crop production, the fencing, regrassing and other improvement of such areas for community pasture purposes, and the resettlement and rehabilitation of farmers operating such lands, principally to irrigation projects, have been major factors in bringing about necessary adjustments in the pattern of land use on the prairies.

Where these adjustments have been of considerable benefit to the agricultural economy, new and growing demands for water required by larger municipal and urban centres for domestic and industrial purposes, as well as to support large-scale irrigation, have made necessary the development of larger and more comprehensive water storage and irrigation schemes where more dependable and plentiful water supplies can be obtained. PFRA in more recent years has devoted an increasing amount of its attention to this type of development.

* Except as otherwise credited, prepared under the direction of S. C. Barry, Deputy Minister of Agriculture, Ottawa.