

metric surveys and a surface water inventory. The Water Rights Office represents the Province of Saskatchewan on the engineering committee of the International Joint Commission and on the Prairie Provinces Water Board.

Irrigation Development.—By the end of 1956, 114,010 acres of topographic surveys and 148 miles of strip topographic surveys were completed on irrigation projects; 295 miles of ditch were built and 143 miles maintained; 1,383 structures were installed and 27 maintained; and 4,993 acres were levelled.

Drainage Development.—Topographic surveys covered 136,804 acres and 5,240 miles of strip topographic surveys were completed on drainage projects; 832 miles of ditch and 245 miles of road were built and 148 miles of ditch maintained; 12 miles of dyke were built and 793 structures installed in drainage systems.

Development of Under-utilized and Misused Lands.—A total of 48,387 acres of tame perennial forage crops were seeded, mostly for fodder production; and 671 miles of fence were built or rebuilt in the establishment of departmental, municipal or co-operative pastures.

Miscellaneous Project Work.—Such projects included: regrassing about 17,564 acres; planting 580,700 trees; constructing 112 dams and dugouts (with the co-operation of groups of farmers in the area of northern Saskatchewan outside the boundaries of the PFRA program); and organizing 91 conservation areas covering 11,387,904 acres, in order to help local farmers install and maintain drainage and other conservation works.

Pasture Development.—Through the Lands Branch of the Provincial Department of Agriculture the Province has transferred title to 1,194,415 acres and leased without charge another 311,437 acres of grazing land to PFRA for the development of community pastures. Outside the PFRA program, the Province developed an improved 775,836 acres, making a total of 2,281,688 acres available as community pasture land. The 103 pastures outside the PFRA program are operated by co-operative associations, by municipalities or by the Provincial Department of Agriculture; those operated by the Province provided grazing in 1956 for 16,436 cattle owned by 866 local farmers.

Development of Land for Cultivation.—Crown lands, either under cultivation or suitable for cultivation, are leased for a 33-year period. The Province may either reimburse farmers in cash for the cost of clearing and breaking virgin land or the farmers may retain crop shares equivalent in value to costs sustained. To Mar. 31, 1957, the investment of the Province, recorded by the Lands Branch of the Provincial Department of Agriculture, for land clearing and breaking amounted to \$5,739,292, and included work done in six settlement projects involving about 240 farm units where 50 acres were cleared and broken before the land was leased.

*Alberta.**—The Alberta Water Resources Act gives the Minister of the Department of Agriculture wide powers to investigate the water resources of the Province and extensive surveys have been carried out to determine the distribution and extent of the available water supplied in the Province and the most beneficial use for irrigation, water power and other purposes. The Water Resources Branch of the Provincial Department of Agriculture administers the licensing of water power projects and the construction work in several irrigation projects. Irrigation projects are also licensed and water allocated for domestic and irrigation purposes. Other work includes administration of drainage districts, co-operation on the Peace River Dug-out Project and on river protection projects where flooding occurs. In more recent years much of this work has been carried out by the Federal Government in co-operation with the Provincial Government.

Stream measurement is being done by the Hydrometric Service of the Federal Department of Northern Affairs and National Resources and irrigation surveys are carried out largely by the water development organization under the PFRA (see p. 413).

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