

Winter snowfall is comparatively light in Central Canada with amounts ranging from 30 to 50 inches over the central prairies. This amount increases to 70 inches in the foothills of the Rockies and probably twice that amount in the highest ranges. Winter snowfall also exceeds 50 inches in central and eastern Manitoba. Snow may fall in any month except July and August, although measurable snow is unusual in June. The first snow cover usually appears in late October and snow disappears in early April. Blizzards and heavy snow drifting in winter are hazards on the open prairies but less so in the parklands and forests where the force of the wind is broken. Severe blizzards are most frequent in the months with heaviest snowfall and attain their maximum intensity when temperatures are zero or below. Although they still cause great inconvenience and disrupt transportation, the hazard of the blizzards has considerably decreased since the early days of prairie settlement.

## Ontario

The Province of Ontario covers a vast area, extending over 15° of latitude and 20° of longitude. The southernmost part of the province is in the same latitude as Rome, Italy, while the extreme north is in the same latitude as southern Sweden. Although considered to be an inland province, it is noteworthy that Ontario has a freshwater shoreline of over 2,350 miles along the northern shores of the Great Lakes and in the north a saltwater shoreline of about 680 miles on Hudson and James Bays. The province includes a large portion of the Canadian Shield, a section of the Hudson Bay Lowlands and a large part of the St. Lawrence Lowlands.

Although altitude plays an important part in climatic variations in southern Ontario, that part of the province enjoys a considerably warmer climate than northern Ontario which bears the brunt of severe winter cold waves moving southeastward from the prairies or southward from the Arctic via Hudson Bay with little or no modification. Thus the province may be conveniently divided into Northern and Southern Ontario for discussion.

**Northern Ontario.**—Northern Ontario, lying between the upper Great Lakes and Hudson and James Bays, has an area slightly in excess of 300,000 sq. miles. Most of it is uninhabited since, except for mining operations, settlement is largely confined to the area south of latitude 50° 30' N. Except for a few rocky ridges northwest of Lake Superior which rise above 2,000 feet, the whole area is less than 1,500 feet above sea-level and much of the Hudson Bay Lowlands has an elevation less than 500 feet. The height of land separating the Great Lakes-St. Lawrence drainage and the Hudson Bay drainage lies in a wide crescent north of Lake Superior extending westward to the Lake of the Woods and eastward to Kirkland Lake. Extensive areas of glacial clay and sediments are found in the Canadian Shield and the largest of these clay plains is the Northern Clay Belt which stretches 125 miles from Hearst to Cochrane and is some 40 miles wide. These clay belts provide suitable soil for agriculture providing there is a sufficiently long frost-free season.

Northern Ontario experiences very cold winters with the 0°F. isotherm for January running from Lake Abitibi westward across the southern end of Lake Nipigon to the Lake of the Woods. Northward, January temperatures are as much as 15°F. colder in the extreme northernmost tip of the District of Patricia. The warming effect of Lake Superior is quite noticeable in winter with Fort William having a January mean temperature of 7°F. January temperatures show a gradual increase southward, reaching 15°F. along the north shore of Lake Huron. A bowl-shaped depression on or near the ridge separating the James Bay drainage area from that of the Great Lakes seems to provide the optimum conditions for extremely low temperatures on clear, still winter nights. The lowest temperatures on record for this area generally range from -50°F. to -60°F. The record low temperature for Northern Ontario is -73°F. at Iroquois Falls.

West of Lake Superior a feature of the climate is the rapid warming in the spring and in the more southerly parts of Northern Ontario spring is in evidence by April. Northward toward James Bay the coming of spring is retarded with a probability of frosts even in June. Summers are quite warm throughout all of Northern Ontario with July mean temperatures ranging from 60°F. in the far north and immediately north of Lake Superior