

CANADA PRECIPITATION

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Lambert Conformal Conic Projection, Standard Parallels 49°N and 77°N, Modified Polyconic Projection, North of Latitude 80°

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PRECIPITATION

Information portrayed on all maps is based on the climate recording period of 1941 to 1970. Precipitation comprises rainfall and the water equivalent of all forms of frozen precipitation, including snow. A day with measurable precipitation is one on which at least 0.2 mm of water equivalent is recorded.

Precipitation values are monthly and annual totals of the daily amounts that have been averaged over the 30-year period of record for each month. Annual precipitation is the total of the twelve monthly values; the growing season precipitation is the total of the monthly values for May to September. Monthly precipitation is shown for January, April, July, and October, months selected as representative of the seasons.

The statistical measure used to determine precipitation probabilities is based on the standard deviation. This probability measure is used to make precise statements about the frequency of precipitation events and the likelihood of future occurrences. There is an 80% probability that the precipitation for any one locality will lie between the maximum and minimum values indicated on each map. There is a 10% probability that it will be above the higher limit indicated and a corresponding 10% probability that it will be below the lower limit indicated. Assuming normal distributions, the upper and lower limits correspond to ± 1.28 standard deviations from the mean annual, growing season, or monthly precipitation.

Because of constraints on isarithmic interpolation imposed by the uneven and often sparse distribution of climatological stations, the density of the station network can be used as an index of isohyet reliability. Isohyets are most representative in areas of uniform flat terrain. Significant local deviations from the pattern indicated should be

expected as terrain irregularity increases; the greater the irregularity, the greater the deviation. Abrupt changes in climatic characteristics occur in mountainous regions in response to significant variations in elevation, aspect and slope over short distances. In areas of mountainous terrain, isohyets are representative of valley conditions only. Line symbols used over water bodies indicate approximate values.

Sources

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