

Available water (100-cm soil depth)

The map shows available water for a 100-cm soil depth, i.e. water usable by deep-rooted plants such as legumes (e.g. alfalfa). It is estimated in the same way as available water for a 50-cm soil depth, except that underlying parent material (≥ 75 cm) is taken into account. Another difference is that the table showing available water for a 100-cm soil depth has an additional class in it (Table 1).

Table 1. Definition of available water classes for two depths of soil

Class	cm water/50 cm soil	Class	cm water/100 cm soil
Very low	<3	Very low	<5
Low	3 - 6	Low	5 - 7.5
Moderate	6 - 9	Moderately low	7.5 - 10
High	9 - 12	Moderate	10 - 15
Very high	≥ 12	High	15 - 20
		Very high	≥ 20

Nolin 1988

These soil data are used to assess the risk of water stress during the growing season. The maps are useful for, *inter alia*, selecting an optimal crop or deciding whether it is necessary and would be economically advantageous to irrigate land consisting of soil of a particular type.

Soils in the study area with very low, low and moderately low available water account for 21.7% of the total area for a 50-cm soil depth and 17.1% of the total for a 100-cm soil depth. They occur mainly in Richelieu, Saint-Hyacinthe and Verchères Counties, on sands or sandy loams (e.g. Joseph series). Most of the soils are characterized by moderate to very high available water (78.3% for a 50-cm soil depth and 82.9% for a 100-cm soil depth) (e.g. Saint-Aimé series).