

CANADA

SOIL CAPABILITY FOR AGRICULTURE

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Scale 1:7 500 000
0 75 150 225 300 375 450
kilometres
Lambert Conformal Conic Projection Standard Parallels 49°N and 77°N
Modified Polyconic North of Latitude 80°

SOIL CAPABILITY FOR AGRICULTURE

AGRICULTURAL SOIL CAPABILITY CATEGORIES¹

Category A Mineral soils capable of sustained production of field crops. With crop use limitations ranging from insignificant to moderately severe, these soils require only normal conservation practices. (C.L.I. Capability Classes 1, 2, 3)

Category B Mineral soils of marginal capability for the sustained production of field crops. Severe limitations influence the choice of crops and/or require special conservation measures to be employed. (C.L.I. Capability Class 4)

Category C Mineral soils unsuitable for the sustained production of field crops. Very severe limitations generally restrict their use to pasture and forage production. (C.L.I. Capability Classes 5, 6)

Category D Mineral soils unsuitable for crop use or permanent pasture. Extremely severe limitations preclude agriculture². (C.L.I. Capability Class 7)

Category O Organic soils (not classified according to agricultural capability).

UNCLASSIFIED LAND Land which has not been classified according to agricultural capability³

— CANADA LAND INVENTORY BOUNDARY

Notes

1. Soil capability categories were generalized from the Canada Land Inventory Soil Capability Classification for Agriculture, an interpretive grouping of soils based on considerations of climatic, soil and landscape limitations for agricultural use. The productive capacity of soils for common field crops was also considered.

2. The classification groups mineral soils according to their actual or potential limitations for field crop production. Groupings at the class level reflect the severity rather than kind of limitation or hazard (severity increasing progressively from Class 1 to Class 7). Subclass groupings reflect the kind of limitation or hazard present.

3. The soil capability presentation was obtained by grouping Canada Land Inventory (C.L.I.) capability classes (see legend for combination used) and therefore reflect the severity of limitations for field crop production. A summary of the kinds of limitations affecting these soils (C.L.I. subclasses) is presented on the accompanying graph, by province, for areas within Soil Capability Categories A (C.L.I. Classes 1-3), B (C.L.I. Class 4), and C (C.L.I. Classes 5 and 6).

Capability ratings are based on the following assumptions: good soil management practices; a predominantly mechanized system of agriculture; land improvement, (e.g. clearing, drainage, irrigation) within the economic means of the farmer. The classification does not apply to trees, tree fruits, small fruits or ornamental plants. A slightly modified version of the classification is employed in British Columbia where irrigated and non-irrigated ratings are given; the non-irrigated ratings were used for this presentation. British Columbia's classification also applies to tree fruit and grape production.

Certain limitations of the soil capability classification should be understood by the map reader:

Capability ratings are not regionally comparable in terms of soil productivity or range of crops that the soils are capable of supporting.

Soil management requirements can vary significantly within each category.

Climatic variations with their concomitant influence on crop range and yield are not fully reflected by the classification.

3. Mapping limits are defined by the extent of survey information. Within the Canada Land Inventory boundary, some national and provincial parts and military reserves have not been classified according to agricultural capability. North of the C.L.I. boundary, and in British Columbia, localised areas with agricultural capability may exist beyond the areas surveyed although the adverse climate and/or landscape limitations that prevail in these regions generally preclude agriculture.

2. An apparent contradiction may appear, where small areas of known agricultural activity are found to coincide with areas depicted as having no agricultural capability. Because of the level of generalization required by the scale, such small pockets of land of higher capability were not represented on the map. This problem is compounded in mountainous regions, where significant variations in altitude, topography, soil characters and climate occur within short distances. In such areas, abrupt changes in agricultural capability occur vertically, and land represented as Category D on the map may support agricultural activity in valley bottoms. Extensive land improvement (see Note 1 for assumptions of classification) is another factor that might cause this apparent contradiction.

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