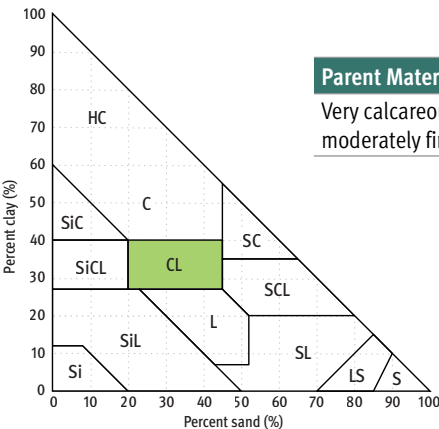


Perth (PTH)

GLEYED BRUNISOLIC GRAY BROWN LUVISOL
Taxonomic Subgroup Classification

Ontario Soil Series
DESCRIPTION AND INTERPRETATION



Parent Material
Very calcareous,
moderately fine till (morainal)

Soil Properties

Drainage	Permeability	Available Moisture	Runoff
Very Rapid	Very Slow	Very Low	Very Fast
Rapid	Slow	Low	Fast
Well	Moderate	Moderate	Moderate
Moderately Well	Rapid	High	Slow
Imperfect	Very Rapid	Very High	Very Slow
Poor	—	—	—
Very Poor	—	—	—

Soil Profile



cm	Native Profile	Cultivated Profile
0	Ah	Ap
10	Bmgj	Ap
20	Bmgj	Bmgj
30	Btgj	Btgj
40	Btgj	Btgj
50	Btgj	Btgj
60	Btgj	Btgj
70	Btgj	Btgj
80	Ckgj	Ckgj
90	Ckgj	Ckgj
100	Ckgj	Ckgj

Management Challenges

Land Development Requirements		
Stone Removal		Moderate
Surface Drainage		Moderate
Tile Drainage		Moderate
Soil Fertility		Low
Irrigation		Low

Tile Drainage Risks		
Bank Erosion		Moderate
Unearthing of Coarse Fragments		Moderate
Physical Clogging with Sediment		Low
Iron Clogging		Low

Land Management Risks		
Compaction		High
Loss of Organic Matter		Moderate
Acidification		Low
Water Erosion Potential		Moderate
Wind Erosion Potential		Low
Tillage Erosion Potential		Moderate

Example Landscape



CANADA LAND INVENTORY
RATING FOR AGRICULTURE

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Find more information on
CLI and soil capability ratings
at [Soil Capability for Agriculture
in Ontario](#).



Perth (PTH)

Ontario Soil Series

DESCRIPTION AND INTERPRETATION

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Taxonomic Subgroup Classification

Physical Analyses

Soil Layers	Horizon	Texture Class ¹	Coarse Fragments by Volume (%)	Sand Fractions (%)					Sand (%)	Silt (%)	Clay (%)	Bulk Density (g/cm ³)
				Very Coarse	Coarse	Medium	Fine	Very Fine				
Surface	Ap	SiCL	1	2	2	3	3	5	14	52	34	1.22
Subsurface	Btgj	SiCL	14	4	4	6	5	4	23	38	39	1.23
Parent Material	Ckgj	SiCL	9	4	2	1	2	2	10	46	44	1.47

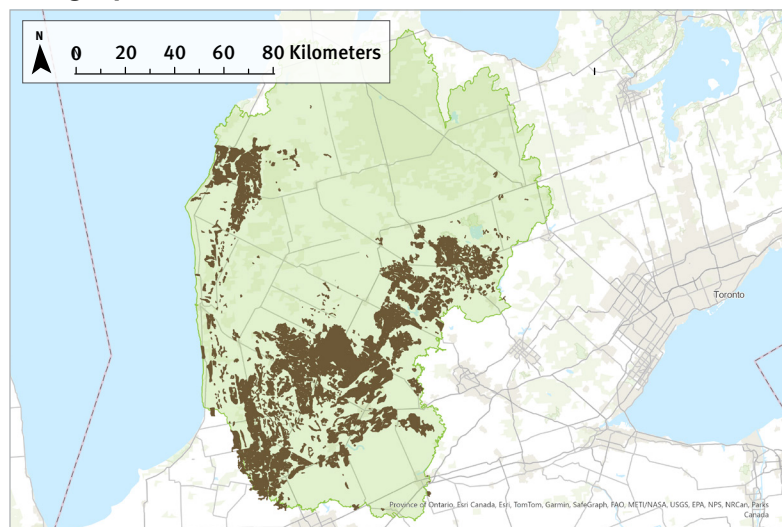
¹ Texture Class: SiCL = Silty Clay Loam

Chemical Analyses

Soil Layers	Horizon	Horizon Thickness (cm)	pH (H ₂ O)	SOM (%)	CEC (meq/100 g)	Base Saturation (%)	CaCO ₃ (%)
Surface	Ap	19	7.4	5.1	33	97	0.8
Subsurface	Btgj	14	7.8	1.8	32	99	8.4
Parent Material	Ckgj	40	8.1	0.1	N/A	100	34.4

Legend: SOM = Soil Organic Matter; CEC = Cation Exchange Capacity; CaCO₃ = Calcium Carbonate

Geographic Distribution



Map outlining the Soil Region (light green shading) and geographic distribution of the soil series (solid brown).

This factsheet is intended for informational purposes only. Producers are advised to consult their own certified crop advisor or other production specialist.

For more information on the soil profile series, refer to the [Ontario Soils GeoHub](#).



Soil Correlation

Soil Family	Perth
Similar Series (province wide)	Battersea, Brady, Carp, Lanark, Listowel, Peel, Wellesley, Whitby
Soil Region	Stratford
Catena Members (Drainage)	Huron (MW), Perth (I), Brookston (P), Dorking (VP)
Areal Extent	381,538 ha (942,799 acres)

Agricultural Production

Perth soils are prime agricultural soils in Ontario. They are imperfectly drained and retain adequate moisture levels for crop production in normal seasons. Based on crop information from 2021 to 2024, areas mapped as Perth soils were predominantly in soybeans (31%), corn (30%), winter wheat (17%) and pasture and/or forage (9%).