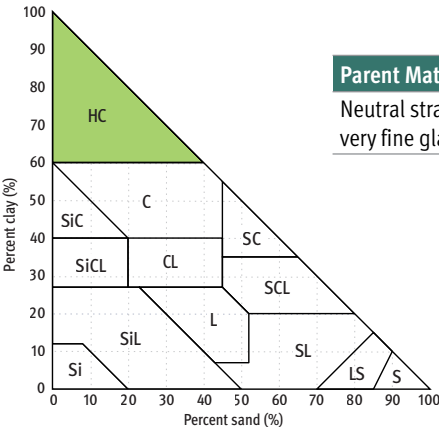


Bearbrook (BBO)

ORTHIC HUMIC GLEYSOL
Taxonomic Subgroup Classification

Ontario Soil Series
DESCRIPTION AND INTERPRETATION

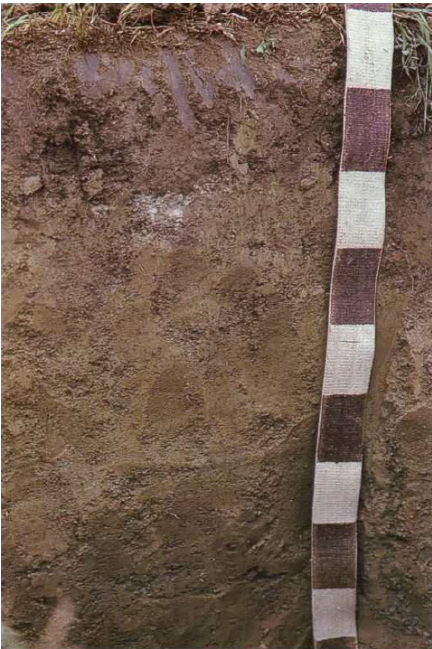


Parent Material
Neutral stratified,
very fine glaciomarine

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		
20	Bg	Bg
30		
40		
50		
60	BCg	BCg
70		
80		
90	Ckg	Ckg
100		

Management Challenges

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

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

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

Example Landscape



CANADA LAND INVENTORY
RATING FOR AGRICULTURE

3

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



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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	SiC	0	0	0	0	0	9	9	42	49	1.07
Subsurface	Bg	HC	0	0	0	0	0	2	2	33	65	1.39
Parent Material	Ckg	HC	0	0	0	0	0	4	4	23	73	1.26

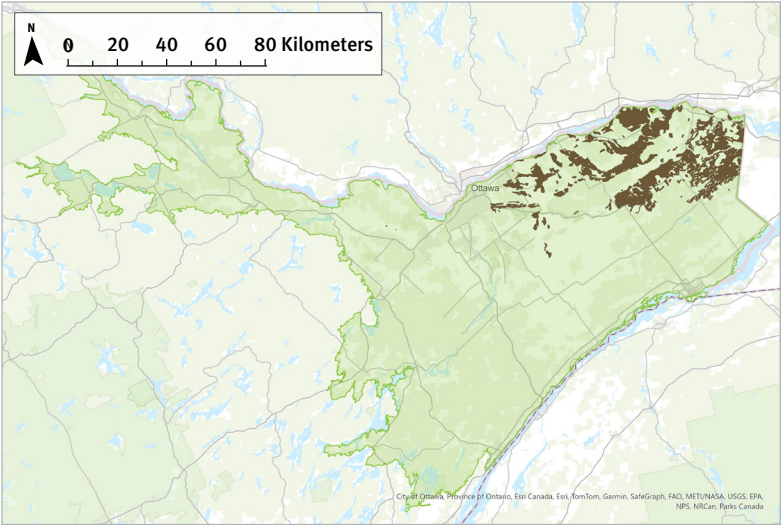
¹ Texture Class: SiC = Silty Clay; HC = Heavy Clay

Chemical Analyses

Soil Layers	Horizon	Horizon Thickness (cm)	pH (H ₂ O)	SOM (%)	CEC (meq/100 g)	Base Saturation (%)	CaCO ₃ (%)
Surface	Ap	16	6.6	7.7	94	89	3.1
Subsurface	Bg	49	7.7	0.3	69	99	0.0
Parent Material	Ckg	20	8.3	0.3	62	100	5.7

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).

Soil Correlation

Soil Family	Bearbrook
Similar Series (province wide)	Atherley, Brandon, Ste. Rosalie
Soil Region	Ottawa
Catena Members (Drainage)	Wendover (I), Bearbrook (P)
Areal Extent	81,145 ha (200,513 acres)

Agricultural Production

Bearbrook soils are prime agricultural soils in Ontario. They are poorly drained and therefore require drainage to remove excess water. Based on crop information from 2021 to 2024, areas mapped as Bearbrook soils were predominantly in soybeans (27%), corn (17%), pasture and/or forage (15%) and native forest vegetation (26%).

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](#).



Ontario

