REPORT NO. 30 OF THE ONTARIO SOIL SURVEY

Prepared by Research Branch, Canada Department of Agriculture
and the Ontario Agricultural College.

SOIL ASSOCIATIONS of SOUTHERN ONTARIO

CANADA DEPARTMENT OF AGRICULTURE, OTTAWA
ONTARIO DEPARTMENT OF AGRICULTURE, TORONTO

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SOIL ASSOCIATIONS OF SOUTHERN ONTARIO

Soil surveys have been completed for nearly all of the Counties and Districts in Southern Ontario. Although the degree of detail of the surveys varies somewhat, there is now sufficient information to permit the compilation of a generalized soil association map of Southern Ontario. The soil association map is drawn on a smaller scale (10 miles = 1 inch) than the county soil maps (1 mile = 1 inch); hence the information is less precise and detailed than on the larger scale maps. The soil association map does, however, give a broad picture of the soil resources of Southern Ontario.

Basis of the Soil Association

The soil associations (i.e. the map units that are indicated on the map by numbers) consist of groups (families) of soils that occur together in the field and thus form a significant landscape. For example, the map area bearing symbol 31 (see map legend) contains well-drained rolling loam (Guelph family of soils) and well-drained undulating sandy loam (Fox family of soils) as the major areas with lesser amounts of other soils having different texture and/or drainage. On the other hand, map area 40 contains imperfectly-drained undulating loam (London family of soils) and well-drained moderately rolling loam (Guelph family of soils) as the major associates with lesser amounts of other soils. Thus each soil association is a unique combination of soils. The characteristics of the soils themselves and of the associations in which they occur are pertinent to an understanding of the soil resources. There are 73 soil associations shown on the map. These are designated by numbers and delineated by black boundary lines (not by color).

Soil Texture

The texture of the soils is emphasized on the map by colors which indicate areas where most of the soils (surface and subsoil) are of a similar texture and/or of similar depth to bedrock. There are ten different colors, i.e. ten textural groupings shown on the map.

Soil texture is emphasized in this way because it has far-reaching agronomic implications. Coarse-textured (sandy) soils have a relatively low capability to supply plant nutrients and a relatively low moisture-holding capacity compared with fine-textured (clay) soils. Soils that are shallow over bedrock lack adequate moisture reserves because of insufficient depth. On the other hand, coarse-textured soils are more easily cultivated than clay soils. Furthermore, the suitability of the soils for certain crops depends on the soil texture, e.g. coarse-textured soils for tobacco. Thus a knowledge of soil texture assists in deducing the fertility status, irrigation requirements, and general adaptability of the area for crop production. Although in each map area having the same color most of the soils have similar texture, there may also be soils included which represent the complete range in texture from sand to clay. For more specific information, see the county soil map for the area.

Topography

The lay-of-the-land is described in four topographic classes (see map legend.)

(1) Level to depressional.

(2) Undulating — smooth, wavy surface with slopes varying up to five per cent.

(3) Rolling—slopes varying from six per cent (gently rolling) up to 30 per cent (rolling).

(4) Hilly—slopes of more than 30 per cent.

The topography is of significance in evaluating the suitability of the land for cultivation and in estimating the susceptibility of the land to erosion.

Drainage

The natural drainage of the soil is an important factor in determining the capability and versatility of the land for crop production. Soils that are permeable and in which the water-table is normally more than five feet below the surface are suitable for a wide variety of crops. On the other hand, soils that are slowly permeable or in which the water-table is normally at or near the surface are restricted in their usefulness for crop production. In such poorly drained soils, the root zone may be water-logged for extended periods and the plants consequently suffer from lack of aeration in the soil.

The natural drainage of the soil is indicated by the degree of "mottling" i.e. irregular spots of reddish, yellowish, and grayish colors in the subsoil.

(a) Good drainage—subsoil is uniform reddish brown or pale grayish brown: free of mottling.

(b) Imperfect drainage—subsoil is pale reddish brown, mottling occurs in the lower part of the subsoil at 2 to 3 feet below the surface.

(c) Poor drainage—subsoil is gray; intensely mottled with red and yellow throughout the subsoil from immediately below the surface layer downward.

(d) Very poor drainage—subsoil is gray; little or no mottling but water-table is at or near the surface throughout the year. In areas of very poor drainage the muck soils are formed.

Of the land suitable for agricultural production in Southern Ontario, approximately 30 per cent is imperfectly drained and 30 per cent is poorly drained (estimated from county soil maps). Increased production results from drainage improvement on these lands; the extent of drainage improvement that can be undertaken profitably depends on the nature of the soil, on the kinds of crops to be grown, and the intensity of cropping.

Surface Reaction

The acidity of the surface soil is an indication of the need for lime. In Southern Ontario there are approximately ¾ million acres of land that require lime for maximum production, especially of legume crops. Use of lime, however, should be based on the results of soil analysis.

Stoniness of Surface Soil

The presence of stones or boulders on or in the surface layer of soil is of significance in land use because of the physical hindrance to cultivation.

(1) Slightly stony—stones are not present in sufficient size and number to interfere with cultivation.

(2) Moderately to very stony—stones present a hazard to cultivation and some stone-picking is necessary.

(3) Exceedingly stony—stones present in sufficient number and/or size to present a serious hazard to cultivation. Stone removal is possible although it is expensive.

(4) Excessively stony — stone removal is too expensive; this is non-arable land.

The significance of the stoniness feature is dependent upon other soil characteristics. For example, if a parcel of land is unsuitable for cultivation because of steep topography or thinness over bedrock, stoniness is not as significant as on land that is otherwise highly suited to crop production. About 50 per cent of the area of Southern Ontario is exceedingly to excessively stony; however, a considerable portion of this area is in the Precambrian Shield where the soils are non-arable for other reasons as well.

SUMMARY

	Million Acres
Total land area shown on the Soil Association Map	32.5
A. Land area not suitable for agricultural use	
(1) Within the Precambrian Shield (includes isolated areas of limited agricultural use; mainly bare rock and innumerable small swamps)	14.5
(2) Outside the Precambrian Shield (main hazards are thinness of soil over bedrock: excessive stoniness; steep slopes)	5.0
B. Land area suitable for agricultural use	13.0
Even in the area that is suitable for agriculture, there are hazards to crop production. Some of the principal hazards and the approximate acreage involved are:	
(1) inadequate drainage	9.1
(2) low fertility (Note that fertilizers give profitable returns on almost all of the land area but low natural fertility is most critical on 5.3 million acres)	5.3
(3) stoniness	1.2

THE CLASSIFICATION OF ONTARIO SOILS

Soils are classified on the basis of the characteristics of the soil profile, i.e. sequence of natural horizons or layers. The system used is a natural classification which consists of a number of categories, each containing a set of classes. The classification of the soil series into families, soil families into Subgroups and soil subgroups into Great Groups is shown in the following tables. These are presented to give the relationship between soil series and to provide a link between the soil association map, which is concerned with associations of soil families, and the county soil maps and reports which deal with soil series.

The grouping of the soil series into their appropriate soil family is given in Table 1. The families are listed in alphabetical order on the left side of each column in the table. The soil series members are listed for each soil family. The line number refers to the location of each soil series in Table 2.

Table 2 is the key to the soil series of Ontario. The 283 soil series mapped to date in the Province have been grouped in the key on the basis of kind of parent materials, kind of profile and drainage. The kind of profile is denoted by the Great Group and Subgroup (Orthic Grey-Brown Podzolic etc). The series are arranged from well drained to poorly drained in line with the appropriate kind of material. Thus, each horizontal line may include a catena of soils which is a group of soil series developed from similar materials but differing in drainage. Not all catenary members have been recognized and mapped; some catenas consist of only one or two members. An alphabetical index of series names is included with the key.

TABLE I

THE SOIL FAMILIES AND THEIR SOIL SERIES MEMBERS

Soil Family	Soil Series	Line No.*
Allendale	Allendale	39
	Englehart	40
Alliston	Alliston	29
	Wayside	30
Ameliasburg	Ameliasburg	134
	Hillier	135
	Kagowong	136
	Little Current	137
Bainsville	Bainsville	86
	Marionville	87
Bastard	Bastard	138
Belmeade	Belmeade	140
	Milberta	142
Berriedale	Berriedale	85
Berrien	Berrien	36
	Edenvale	37
	Winona	38
Beverly	Beverly	108
	Binbrook	109
	Monaghan	107
Bookton	Bookton	36
	Dundonald	37
Brady	Brady	9
	Tecumseth	11
	Vineland	10
Brantford	Brantford	108
	King	107
	Smithville	109
Brisbane	Brisbane	4
	Bamford	6
	Camilla	5
Brooke	Brooke	130
Brookston	Brookston	89, 92, 107
	Chesley	88
	Ferndale	101
	Lindsay	97
	Malton	95
Brookston	Morley	89
	Moscow	99
	North Gower	102
	Osnabruck	91
	Simcoe	96
	Toledo	108
Bucke	Bucke	40
	Manotick	39
Burford	Burford	4
	Caledon	5
	Colborne	6
	Fonthill	7
	Kars	8
Burpee	Burpee	140
Cane	Cane	82
	Brethour	84
	Doe	85
	Falardeau	83
Clyde	Clyde	105
Colwood	Colwood	71
	Crombie	68
	Foxboro	67
	Hinchinbrooke	73
	Maplewood	69
	Osgoode	80
	Petherwick	78
	Stockdale	77
Coutts	Coutts	47
	Wemyss	48
Dack	Dack	120
Dumfries	Dumfries	46
	Donnybrook	18
	Pike Lake	17
Earlton	Earlton	82
	Casey	84
	Pense	83
Eastport	Eastport	33
	Bridgman	34
	Plainfield	35
Elderslie	Elderslie	88
	Craigleith	89
	Kemble	90
	Morrisburg	91

* Line number refers to table 2.

Soil Family	Soil Series	Line No.*
Elk Pit	Elk Pit	26
	Henwood	28
	Raglan	27
Evanturel	Evanturel	82
	Appleton	81
	Blanche	83
	Thwaites	84
Farmington	Farmington	130
	Burnbrae	131
	Elmsley	132
	Leitrim	133
Fox	Fox	9
	Brighton	11
	Grimsby	10
	Oshtemo	9
Franktown	Franktown	130
Gerow	Gerow	134, 135
Granby	Granby	9, 11, 29, 30
	Flamboro	10
Grenville	Grenville	49
	Dawson	51
	Eamer	50
Guelph	Guelph	54
	Bondhead	55
	Darlington	58
	Eganville	56
	Eldorado	57
	Harriston	59
	Tennyson	60
	Vars	61
	Woburn	62
Gwillimbury	Gwillimbury	1
Haileybury	Haileybury	111
	Almonte	116
	Buzwah	110
	Campbell	113
	Gananoque	112
	Pike	114
Haldimand	Haldimand	124
	Caistor	122
	Chinguacousy	121
	Elmbrook	123
	Lovering	125
	Niagara	126
Himsworth	Himsworth	66
Hendrie	Hendrie	25
Honeywood	Honeywood	68
	Ancaster	70
	Bennington	69
	Brant	71
	Leith	72
	Newburgh	73
	Newcastle	74
	Norham	78
	Percy	67
	Teeswater	75
	Whitfield	76
	Wooler	77
Howland	Howland	63
Huron	Huron	92
	Cashel	95
	Nelson	93
	Schomberg	96
	Seely's Bay	98
	Waupoos	97
Kenabeek	Kenabeek	19
	St. Samuel	20
	Thorah	23
Killean	Killean	46
Lincoln	Lincoln	124
	Atherley	125
	Bearbrook	118
	Jeddo	121
	Mississauga	129
	Sidney	123
	St. Rosalie	127
	Thornloe	120
	Welland	126
Lockport	Lockport	128
	Brockport	129
London	London	54
	Balderson	60
	Guerin	55
	Listowel	59
	Milliken	62
	Stafford	56
	Whitby	58
Lyons	Lyons	49, 50, 52 55, 58 62, 63
	Gilford	1, 4
	Lily	43, 46
	Innisville	60
	Parkhill	53, 54, 59
	Sutton Bay	51
Magnetawan	Magnetawan	66

* Line number refers to table 2.

Soil Family	Soil Series	Line No.*
Matilda	Matilda	49, 50
	Dymond	51
	Emily	52
	Wiarton	53
McCool	McCool	120
Minesing	Minesing	104
	Blackwell	103
Moose	Moose	47
	Christy	48
Mountain	Mountain	39
	Dalton	41
	Otterskin	40
New Liskeard	New Liskeard	111
	Napanee	112
	Perch	114
	Phipps	110
	Wolsey	113
Nipissing	Nipissing	85
	Castor	86
Osprey	Osprey	43
	Dummer	44
	Deloro	45
Otonabee	Otonabee	52
	Harkaway	53
Perth	Perth	92
	Battersea	98
	Carp	102
	Ellwood	106
	Lanark	94
	Peel	95
	Smithfield	96
	Solmesville	97
	Tansley	93
	Thames	100
Pontypool	Pontypool	12
	Harrow	13
	Havelock	14
	Hillsburgh	15
	Waterloo	16
Powassan	Powassan	66
Renfrew	Renfrew	115
	Bass	114
	Gordon	113
	Lansdowne	112
	Leech	110
	Hanbury	111
	Snedden	116
Rideau	Rideau	119
	Alberton	117
	Wendover	118
Rubicon	Rubicon	20
	L'Achigan	21
	Mallard	19
Sargent	Sargent	1
	Cramahe	2
Saugeen	Saugeen	88
	Dunedin	89
	Vincent	90
	Wolford	91
Shashawandah	Shashawandah	139
South Bay	South Bay	123
	Medonte	125
	Oneida	121
St. Peter	St. Peter	24
	Wyevale	25
Sullivan	Sullivan	3
Tioga	Tioga	29
	Bolingbroke	30
	Westmeath	31
	White Lake	32
Trafalgar	Trafalgar	128
	Cooksville	129
Tuscola	Tuscola	71
	Codrington	78
	Embro	68
	Lambton	79
	Matson	77
	Murray	
	Piccadilly	73
	Tavistock	69
	Trent	67
Tweed	Tweed	42
Vasey	Vasey	63
	Burnstown	64
	Galesburg	65
Wabi	Wabi	47
	Monteagle	48
Wendigo	Wendigo	19
	Bancroft	22
	St. Thomas	21
	Uplands	20

* Line number refers to table 2.

TABLE 2

KEY TO THE SOIL SERIES OF ONTARIO

Parent Material of Soil Catena and Great Groups	Line	Soil Drainage Class		
		Good	Imperfect	Poor
A. Coarse Textured Soils on Sands and Gravels				
Brown Forest and Humic Gleysol Great Groups	Subgroup	Orthic Brown Forest	Gleyed Orthic Brown Forest	Orthic Humic Gleysol
(a) Outwash gravel, limestone dominant	1	Sargent	Gwillimbury	Gilford
(b) Eskeroid gravel, limestone dominant	2	Cramahe		
(c) Outwash sand, limestone dominant	3	Sullivan		
Grey-Brown Podzolic and Humic Gleysol Great Groups	Subgroup	Brunisolic Grey-Brown Podzolic	Gleyed Brunisolic Grey-Brown Podzolic	Orthic Humic Gleysol
(a) Outwash gravel, limestone and sandstone	4	Burford	Brisbane	Gilford
(b) Sand over gravel, shale and limestone	5	Caledon	Camilla	
(c) Sand over gravel, limestone	6	Colborne	Bamford	
(d) Outwash gravel, red shale	7	Fonthill		
(e) Outwash gravel, limestone	8	Kars		
(f) Outwash sand, limestone	9	Oshtemo, Fox	Brady	Granby
(g) Outwash sand, shale and limestone	10	Grimsby	Vineland	Flamboro
(h) Outwash sand, high lime	11	Brighton	Tecumseth	Granby
(i) Morainic outwash sand, high lime	12	Pontypool		
(j) Morainic outwash sand, shale and limestone	13	Harrow		
(k) Morainic outwash sand, low lime	14	Havelock		
(l) Morainic outwash fine sand, limestone	15	Hillsburgh		
(m) Morainic outwash sand, limestone	16	Waterloo		
(o) Morainic outwash gravel, limestone	17	Pike Lake		
(p) Outwash gravel, eskeroid	18	Donnybrook		
Podzol and Gleysol Great Groups	Subgroup	Orthic Podzol	Gleyed Orthic Podzol	Orthic Gleysol
(a) Outwash sand, mainly granitic	19	Wendigo	Mallard	Kenabeek
(b) Outwash sand, low lime	20	Uplands	Rubicon	St. Samuel
(c) Outwash fine sand, acidic	21	St. Thomas	L'Achigan	
(d) Outwash sand, morainic, acidic	22	Bancroft		
(e) Outwash coarse sand, acidic	23			Thorah
(f) Outwash gravel, mainly granitic	24	St. Peter		
(g) Outwash gravel, low lime	25	Wyevale	Hendrie	
(h) Morainic outwash gravel, granitic	26	Elk Pit		
(i) Morainic outwash gravel, acidic	27	Raglan		
(j) Morainic outwash sand, granitic	28	Henwood		
Podzol and Humic Gleysol Great Groups	Subgroup	Bisequa Podzol	Gleyed Bisequa Podzol	Orthic Humic Gleysol
(a) Outwash sand, limestone	29	Tioga	Alliston	Granby
(b) Outwash sand, calcite	30	Bolingbroke	Wayside	Granby
(c) Morainic outwash sand, low lime	31	Westmeath		
(d) Morainic outwash sand and gravel	32	White Lake		
Regosol Great Group	Subgroup	Orthic Regosol		
(a) Outwash sand, no profile development	33	Eastport		
(b) Outwash sand, Ae, C profile	34	Bridgman		
	Subgroup	Mull Regosol		
(c) Outwash sand, Ah, Ae, C profile	35	Plainfield		

Parent Material of Soil Catena and Great Groups	Line	Soil Drainage Class		
		Good	Imperfect	Poor
B. Coarse Textured Soils on Clays and Loams				
Grey-Brown Podzolic and Humic Gleysol Great Groups	Subgroup	Brunisolic Grey-Brown Podzolic	Gleyed Brunisolic Grey-Brown Podzolic	Orthic Humic Gleysol
(a) Outwash sand, moderately deep over clay	36	Bookton	Berrien	Wauseon
(b) Outwash sand, moderately deep loam till	37	Dundonald	Edenvale	Mill
(c) Outwash sand, moderately brown clay till	38		Winona	
Podzol and Humic Gleysol Great Groups	Subgroup	Orthic Podzol	Gleyed Orthic Podzol	Orthic Humic Gleysol
(a) Outwash sand, moderately deep over clay	39	Manotick	Mountain	Allendale
(b) Outwash sand, moderately deep over clay	40	Bucke	Otterskin	Englehart
(c) Outwash sand, moderately low lime clay	41		Dalton	
C. Medium and Coarse Textured Soils on Stony Till				
Brown Forest and Humic Gleysol Great Groups	Subgroup	Orthic Brown Forest		
(a) Sandy loam till, mainly calcite	42	Tweed		
	Subgroup	Degraded Brown Forest		Orthic Humic Gleysol
(b) Loam and sandy loam till, mainly dolomite	43	Osprey		Lily
(c) Loam till, mainly limestone (Black River)	44	Dummer		
(d) Loam till, mainly shale (Pamelia)	45	Deloro		
Grey-Brown Podzolic and Humic Gleysol Great Groups	Subgroup	Brunisolic Grey-Brown Podzolic	Gleyed Brunisolic Grey-Brown Podzolic	Orthic Humic Gleysol
(a) Loam and sandy loam till, mainly dolomite	46	Dumfries	Killean	Lily
Podzol and Gleysol Great Groups	Subgroup	Orthic Podzol	Gleyed Orthic Podzol	Orthic Gleysol
(a) Sandy loam till, mainly granitic	47	Wabi	Coutts	Moose
(b) Sandy loam till, mainly granitic	48	Monteagle	Wemyss	Christy
D. Medium Textured Soils on Till				
Brown Forest and Humic Gleysol Great Groups	Subgroup	Orthic Brown Forest	Gleyed Orthic Brown Forest	Orthic Humic Gleysol
(a) Loam till, mainly limestone (Beekmantown)	49	Grenville	Matilda	Lyons
(b) Loam till, mainly limestone (Trenton)	50	Eamer	Matilda	Lyons
(c) Loam till, mainly dolomite	51	Dawson	Dymond	Sutton Bay
	Subgroup	Degraded Brown Forest	Gleyed Degraded Brown Forest	Orthic Humic Gleysol
(d) Loam till, mainly limestone (Trenton)	52	Otonabee	Emily	Lyons
(e) Loam till, mainly limestone (Bertie-Akron)	53	Harkaway	Wiarton	Parkhill

Parent Material of Soil Catena and Great Groups	Line	Soil Drainage Class		
		Good	Imperfect	Poor
Grey-Brown Podzolic and Humic Gleysol Great Groups	Subgroup	Brunisolic Grey-Brown Podzolic	Gleyed Brunisolic Grey-Brown Podzolic	Orthic Humic Gleysol
(a) Loam till, mainly dolomite	54	Guelph	London	Parkhill
(b) Loam and sandy loam till, mainly limestone (Trenton)	55	Bondhead	Guerin	Lyons
(c) Loam till, mainly limestone	56	Eganville	Stafford	
(d) Loam till, mainly red and grey shale (Pamelia)	57	Eldorado		
(e) Loam till, mainly limestone and Utica shale	58	Darlington	Whitby	Lyons
(f) Loam till, mainly limestone (Bertie-Akron)	59	Harriston	Listowel	Parkhill
(g) Sandy loam till, mainly limestone and sandstone	60	Tennyson	Balderson	Innisville
(h) Loam till, mainly shale	61	Vars		
(i) Loam till, mainly sandstone and limestone	62	Woburn	Milliken	Lyons
Brunisolic Grey-Brown Podzolic Soils, weak clay concentration in subsoil and their Gley Associates				
(j) Sandy loam till, mainly limestone	63	Vasey	Howland	Lyons
(k) Loam till, mainly limestone	64	Burnstown		
(l) Loam till, mainly limestone	65	Galesburg		
E. Moderately Fine Textured Soils on Fine Sands or Silts				
Acid Brown Wooded and Gleysol Great Groups	Subgroup	Orthic Acid Brown Wooded	Gleyed Orthic Acid Brown Wooded	Orthic Gleysol
(a) Silt loam, moderately deep over clay	66	Magnetawan	Himsworth	Powassan
Grey-Brown Podzolic and Humic Gleysol Great Groups	Subgroup	Brunisolic Grey-Brown Podzolic	Gleyed Brunisolic Grey-Brown Podzolic	Orthic Humic Gleysol
(a) Deep, calcareous fine sand	67	Percy	Trent	Foxboro
(b) Silt loam, moderately deep over loam till	68	Honeywood	Embro	Crombie
Grey-Brown Podzolic and Humic Gleysol Great Groups	Subgroup	Brunisolic Grey-Brown Podzolic	Gleyed Brunisolic Grey-Brown Podzolic	Orthic Humic Gleysol
(c) Silt loam, moderately deep over clay loam till	69	Bennington	Tavistock	Maplewood
(d) Deep silt loam and fine sand	70	Ancaster		
(e) Deep fine sand and silt loam	71	Brant	Tuscola	Colwood
(f) Deep silt loam	72	Leith		
(g) Deep very fine sand and silt loam	73	Newburgh	Piccadilly	Hinchinbrooke
(h) Deep, high lime silt loam	74	Newcastle	Matson	
(i) Silt loam, moderately deep over gravel	75	Teeswater		
(j) Silt loam, moderately deep over limestone	76	Whitfield		
(k) Silt loam, and fine sand, low lime, deep	77	Wooler	Murray	Stockdale
(l) Silt loam, low lime, deep	78	Norham	Codrington	Petherwick
(m) Silt loam, moderately deep over clay	79		Lambton	
(n) Silt loam, medium lime	80			Osgoode

Parent Material of Soil Catena and Great Groups	Line	Soil Drainage Class		
		Good	Imperfect	Poor
Grey Wooded and Gleysol Great Groups	Subgroup	Bisequa Grey Wooded	Gleyed Bisequa Grey Wooded	Orthic Gleysol
(a) Silt loam and fine sand, low lime, deep	81	Appleton		
(b) Silt loam, calcareous, deep	82	Evanturel	Earlton	Cane
(c) Silt loam, low lime, deep	83	Blanche	Pense	Falardeau
(d) Silt loam, moderately deep over clay	84	Thwaites	Casey	Brethour
Podzol and Gleysol Great Groups	Subgroup	Orthic Podzol	Gleyed Orthic Podzol	Orthic
(a) Fine sand and silt, acidic, deep	85	Berriedale	Nipissing	Doe
	Subgroup			Orthic Humic Gleysol
(b) Fine sand, moderately deep over clay	86		Castor	Bainsville
(c) Fine sand, thin over low lime clay	87			Marionville
F. Fine Textured Soils on Till or Lacustrine Materials				
Brown Forest and Humic Gleysol Great Groups	Subgroup	Degraded Brown Forest	Gleyed Degraded Brown Forest	Orthic Humic Gleysol
(a) Lacustrine silty clay	88	Saugeen	Elderslie	Chesley
(b) Clay till, mainly dark red shale	89	Dunedin	Craigleith	Morley
(c) Clay loam till, mainly limestone	90	Vincent	Kemble	Brookston
(d) Clay loam till mainly sandstone and shale	91	Wolford	Morrisburg	Osnabruck
Grey-Brown Podzolic Gleysol and Humic Gleysol Great Groups	Subgroup	Orhic Grey-Brown Podzolic	Gleyed Orthic Grey-Brown Podzolic	Orthic Humic Gleysol
(a) Clay and clay loam till, mainly limestone	92	Huron	Perth	Brookston
(b) Clay till, mainly red shale	93	Nelson	Tansley	
(c) Clay till, mainly limestone and sandstone	94		Lanark	
(d) Lacustrine clay, moderately deep over clay till	95	Cashel	Peel	Malton
(e) Silt loam and clay, high lime	96	Schomberg	Smithfield	Simcoe
(f) Lacustrine clay loam, thin over clay loam till	97	Waupoos	Solmesville	Lindsay
(g) Lacustrine silt and silty clay loam	98	Seely's Bay	Battersea	
(h) Lacustrine silty clay	99			Moscow
(i) Lacustrine clay loam	100		Thames	
(j) Lacustrine clay, low lime	101			Ferndale
(k) Lacustrine clay loam or clay	102		Carp	North Gower
	Subgroup			Carbonated Rego Gleysol
(l) Lacustrine silt and clay, marly	103			Blackwell
(m) Lacustrine silt loam or clay, marly	104			Minesing
	Subgroup			Rego Humic Gleysol
(n) Lacustrine clay loam or clay	105			Clyde
(o) Clay loam till, mainly shale	106		Ellwood	

Parent Material of Soil Catena and Great Groups	Line	Soil Drainage Class		
		Good	Imperfect	Poor
Grey-Brown Podzolic and Humic Gleysol Great Groups	Subgroup	Brunisolic Grey-Brown Podzolic	Gleyed Brunisolic Grey-Brown Podzolic	Orthic Humic Gleysol
(a) Clay loam till, mainly shale (Dundas)	107	King	Monaghan	Brookston
(b) Lacustrine silty clay	108	Brantford	Beverly	Toledo
(c) Lacustrine silt loam, thin over clay	109	Smithville	Binbrook	
Grey Wooded and Humic Gleysol Great Groups	Subgroup	Orthic Grey-Wooded	Gleyed Orthic Grey-Wooded	Orthic Humic Gleysol
(a) Clay loam till, mainly limestone	110	Buzwah	Leech	Phipps
(b) Lacustrine silty clay loam and clay	111	Haileybury	Hanbury	New Liskeard
(c) Lacustrine clay and silt loam	112	Gananoque	Lansdowne	Napanee
(d) Lacustrine silty clay	113	Campbell	Gordon	Wolsey
(e) Lacustrine clay	114	Pike	Bass	Perch
(f) Lacustrine silt loam and clay	115		Renfrew	
(g) Lacustrine silty clay loam, low lime	116	Almonte	Snedden	
Regosols and Humic Gleysol Great Groups	Subgroup		Gleyed Mull Regosol	Orthic Humic Gleysol
(a) Lacustrine silt loam, moderately deep over clay	117		Alberton	
(b) Lacustrine clay, brown, low lime	118		Wendover	Bearbrook
(c) Lacustrine clay, grey, low lime	119		Rideau	
G. Very Fine Textured Soils on Till or Lacustrine Materials				
Brown Wooded and Humic Gleysol Great Groups	Subgroup	Orthic Brown Wooded	Gleyed Orthic Brown Wooded	Orthic Humic Gleysol
(a) Lacustrine clay	120	Dack	McCool	Thornloe
Grey-Brown Podzolic and Humic Gleysol Great Groups	Subgroup	Orthic Grey-Brown Podzolic	Gleyed Orthic Grey-Brown Podzolic	Orthic Humic Gleysol
(a) Clay till, mainly brown shale (Lorraine)	121	Oneida	Chinguacousy	Jeddo
(b) Clay till, mainly grey shale (Kettle Point)	122		Caistor	
(c) Lacustrine clay, medium lime	123	South Bay	Elmbrook	Sidney
(d) Lacustrine clay, dark grey	124		Haldimand	Lincoln
(e) Lacustrine clay, low lime	125	Medonte	Lovering	Atherley
(f) Lacustrine clay, red	126		Niagara	Welland
(g) Lacustrine clay, low lime	127			St. Rosalie
(h) Red clay, moderately deep over red shale	128	Lockport	Trafalgar	
(i) Grey clay till, moderately deep over grey shale	129	Brockport	Cooksville	Mississauga
H. Shallow Soils on Sedimentary Rock				
Brown Forest and Humic Gleysol Great Groups	Subgroup	Orthic Brown Forest	Gleyed Orthic Brown Forest	Orthic Humic Gleysol
(i) **Medium textured soils**				
(a) Loam till, shallow over limestone or sandstone	130	Farmington	Franktown	Brooke
(b) Loam till, shallow over limestone (Trenton)	131	Burnbrae		
(c) Sandy loam till, shallow over sandstone	132	Elmsley		
(d) Gravelly outwash, shallow over shale	133	Leitrim		

Parent Material of Soil Catena and Great Groups	Line	Soil Drainage Class		
		Good	Imperfect	Poor
(ii) Fine textured soils				
(a) Clay loam till, shallow over limestone (Trenton)	134	Ameliasburg		Gerow
(b) Clay till, shallow over limestone and shale	135	Hillier		Gerow
(c) Lacustrine silt loam, shallow over limestone	136	Kagawong		
(d) Lacustrine clay, shallow over shale	137	Little Current		
Podzol Great Group	Subgroup	Orthic Podzol		
(a) Outwash sand, shallow over sandstone	138	Bastard		
Regosol Great Group	Subgroup	Mull Regosol		
(b) Gravelly loam, shallow over shale	139	Shasha-wandah		
I. Very Poorly Drained Soils				
Peaty Rego Gleysols with 6 to 12 inches of Organic Material	Subgroup			
(a) Muck, thin over sandy materials. Associated with the soils in line 19	140	Burpee		
(b) Muck, thin over clay. Associated with the soils in line 102	141	Belmeade		
(c) Muck, thin over clay. Associated with the soils in line 111	142	Milberta		
Organic Soils, with more than 12 inches of Organic Material				
(a) Well decomposed, black materials	143	Muck		
(b) Slightly decomposed, brown materials	144	Peat		

Note: Humic Gleysol called Dark Grey Gleisolic on soil map.

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Atherley	125
Bainsville	86
Balderson	60
Bamford	6
Bancroft	22
Bass	114
Bastard	138
Battersea	98
Bearbrook	118
Belmeade	102
Bennington	69
Berrien	36
Berriedale	85
Beverly	108
Binbrook	109
Blackwell	103
Blanche	83
Bolingbroke	30
Bondhead	55
Bookton	36
Brady	9
Brant	71
Brantford	108
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Brighton	11
Brisbane	4
Brockport	129
Brooke	130
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Bucke	40
Burford	4
Burnbrae	131
Burnstown	64
Burpee	19
Buzwah	110
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Caistor	122
Camilla	5
Campbell	113
Cane	82
Carp	102
Casey	84
Cashel	95
Castor	86
Chesley	88
Chinguacousy	121
Christy	48
Clyde	105
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Darlington	58
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Deloro	45
Doe	85
Donnybrook	18
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Dummer	44
Dundonald	37
Dunedin	89
Dymond	51
Eamer	50
Earlton	82
Eastport	33
Edenvale	37
Eganville	56
Elderslie	88
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*** Line number refers to table 2.**

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*** Line number refers to table 2.**

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*** Line number refers to table 2.**