CLASSIFICATION AND CORRELATION OF THE SOILS OF

CLINTON COUNTY INDIANA

OCTOBER 1978

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
MIDWEST TECHNICAL SERVICE CENTER
LINCOLN, NEBRASKA

UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
Midwest Technical Service Center
Lincoln, Nebraska 68508

Classification and Correlation
of the Soils of
Clinton County, Indiana

The correlation conference was in Lincoln, Nebraska, February 6-10, 1978. Participating were William D. Hosteter, Party Leader; DeWayne Williams, Field Specialist (Soils); and Rod Harner, Soil Correlator. The field correlation, soils handbook, correlation samples, laboratory data, field notes, compiled atlas sheets, SCS-Soils-5 forms for substratum phases, and initial draft of a proposed series were available. Rod Harner participated in the final field review, November 7-10, 1977.

Headnote for Detailed Soil Survey Legend

The first capital letter is the first one of the map unit name. The lowercase letter that follows separates map units having names that begin with the same letter except that it does not separate sloping or eroded phases. The second capital letter indicates the class of slope. Symbols without a slope letter are for map units having a slope range of 0 to 2 percent. A final number 2 or 3 in the symbol indicates that the soil is eroded or severely eroded, respectively.

SOIL CORRELATION OF
CLINTON COUNTY, INDIANA

Field symbols	Field mapping unit name	Publication symbol	Approved mapping unit name
BeA, Bo, BoA	Brenton silt loam, 0 to 2 percent slopes	Be	Brenton silt loam
CbA, RuA	Camden silt loam, till substratum, 0 to 2 percent slopes	CbA	Camden Variant silt loam, 0 to 2 percent slopes
Sh	Shoals silt loam	Ce	Ceresco loam
Ra	Ragsdale silty clay loam	Cy	Cyclone silt loam
Da, DaB2, Sm, SmA	Dana silt loam, 0 to 2 percent slopes	DaA	Dana silt loam, 0 to 2 percent slopes
DaB2, SmB, SmB2	Dana silt loam, 2 to 6 percent slopes, eroded	DaB	Dana silt loam, 2 to 6 percent slopes
Dr	Drummer silty clay loam	Dr	Drummer silty clay loam
FcA, FdI, To, ToA	Fincastle silt loam, 0 to 2 percent slopes	FcA	Fincastle silt loam, 0 to 2 percent slopes
FdA, CrA	Fincastle-Crosby silt loams, 0 to 3 percent slopes	FdA	Fincastle-Crosby silt loams, 0 to 3 percent slopes
FsB2	Fox silt loam, 2 to 6 percent slopes, eroded	FsB	Fox silt loam, 2 to 6 percent slopes
FsC2	Fox loam, 6 to 15 percent slopes, eroded	FsC	Fox loam, 6 to 15 percent slopes
Gn	Genesee silt loam	Gn	Genesee silt loam, sandy substratum
HeF, MnE2	Hennepin complex, 25 to 50 percent slopes	HeF	Hennepin silt loam, 18 to 50 percent slopes

CLINTON COUNTY, INDIANA --Continued

Field symbols	Field mapping unit name	Publication symbol	Approved mapping unit name
Ho	Houghton muck	Hc	Houghton muck, undrained
Sz	Stonelick fine sandy loam	La	Landes fine sandy loam
Ma	Mahalasville silty clay loam	Ma	Mahalasville silty clay loam
McA	Martinsville silt loam, 0 to 2 percent slopes	McA	Martinsville silt loam, 0 to 2 percent slopes
McB2	Martinsville silt loam, 2 to 6 percent slopes, eroded	McB2	Martinsville silt loam, 2 to 6 percent slopes, eroded
MnC2	Miami silt loam, 6 to 12 percent slopes, eroded	MnC	Miami silt loam, 6 to 12 percent slopes
MnD2	Miami silt loam, 12 to 18 percent slopes, eroded	MnD	Miami silt loam, 12 to 18 percent slopes
MsC3	Miami clay loam, 6 to 12 percent slopes, severely eroded	MsC3	Miami clay loam, 6 to 12 percent slopes, severely eroded
MsD3, MsE3	Miami clay loam, 12 to 18 percent slopes, severely eroded	MsD3	Miami clay loam, 12 to 18 percent slopes, severely eroded
MtB2, CeB2, CxB2, MnB2	Miami-Crosby silt loams, 2 to 6 percent slopes, eroded	MtB	Miami-Crosby silt loams, 2 to 6 percent slopes
MnA	Miami silt loam, 0 to 2 percent slopes	MwA	Miami-Martinsville silt loams, 0 to 2 percent slopes
Mx	Milford silty clay loam	Mx	Milford silty clay loam

CLINTON COUNTY, INDIANA --Continued

Field symbols	Field mapping unit name	Publi-cation symbol	Approved mapping unit name
OcA, FsA	Ockley silt loam, 0 to 2 percent slopes	OcA	Ockley silt loam, 0 to 2 percent slopes
OcB2	Ockley silt loam, 2 to 6 percent slopes, eroded	OcB	Ockley silt loam, 2 to 6 percent slopes
Pb, Sw, Sy	Palms muck	Pc	Palms muck, undrained
PaB, PaA, PaB2, PaC2	Parr silt loam, 1 to 5 percent slopes	PgB	Parr silt loam, 1 to 5 percent slopes
Pn	Patton silty clay loam	Pn	Patton silty clay loam
Pr, G.P.	Pits, gravel	Pr	Pits, gravel
Pt, PtB, PtB2, JaA, JaB, JaB2	Proctor silt loam, 0 to 3 percent slopes	PtA	Proctor silt loam, 0 to 3 percent slopes
Ra, RaC	Ragsdale silty clay loam	Ra	Ragsdale silt loam
Rd, Fg, FgA	Raub silt loam	RdA	Raub silt loam, 0 to 2 percent slopes
ReA	Reesville silt loam	Re	Reesville silt loam
RuB2	Russell silt loam, 2 to 6 percent slopes, eroded	RuB	Russell silt loam, 2 to 6 percent slopes
RaC	Ragsdale Variant silty clay loam	Sa	Sable silty clay loam
RaMA	Ragsdale-Mahalasville silty clay loams	Sc	Sable-Drummer silty clay loams
Sd	Milford silty clay loam	Sd	Saranac silty clay loam
St	Sleeth silt loam	St	Sleeth silt loam
Su	Sloan silt loam	Su	Sloan silt loam
SxA	Starks silt loam	Sx	Starks silt loam

CLINTON COUNTY, INDIANA --Continued

Field symbols	Field mapping unit name	Publi-cation symbol	Approved mapping unit name
Bs, Br	Brookston silty clay loam	Ty	Treaty silt loam
Cr, Cu, Uf	Orthents	Ud	Udorthents, loamy
Wa	Wallkill silty clay loam	Wa	Wallkill silt loam
We	Westland silty clay loam	We	Westland silty clay loam
Wh, Au	Whitaker silt loam	Wh	Whitaker silt loam
XeA	Xenia silt loam, 0 to 2 percent slopes	XeA	Xenia silt loam, 0 to 2 percent slopes
XeB2	Xenia silt loam, 2 to 6 percent slopes, eroded	XeB	Xenia silt loam, 2 to 6 percent slopes

Clinton County, Indiana

Series Established by This Correlation:

Cyclone (Clinton County, Indiana)

Series Dropped or Made Inactive:

None

Join Statement:
The soil survey of Clinton County joins the published soil surveys of Hamilton, Boone, Tippecanoe, and Carroll Counties and the completed survey of Hamilton County. Tippecanoe and Carroll Counties were mapped in the 1930's and are published at a scale of 1:31,680 without photographic background. They join only in a general way with Clinton County because of differences in detail of mapping, changes in series concepts, and design of mapping units. Soil lines join between Clinton County and Howard, Hamilton, and Boone Counties. Adjoining soils are similar in texture and have the same drainage class except where Fincastle soils in Howard County join Xenia soils in Clinton County. A detail of the joins is attached to the field correlation of Clinton County.

The detail on the general soil map and the join with adjacent counties are satisfactory.

Certification of Survey Area Type Locations: All pedons described are within a mapping unit of the named soil or a complex mapping unit containing the soil.

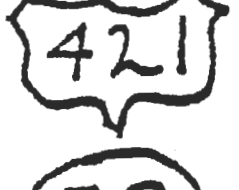
Disposition of Field Sheets
The field sheets are being retained in the state for preparation of overlays for publication.

Instruction For Map Compilation:
Special and ad hoc symbols will be shown as indicated on the attached legend of conventional symbols. Symbols will conform to those shown on Form SCS-Soils-37A(3-75).

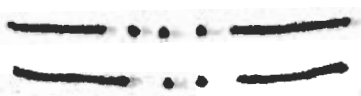
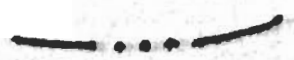
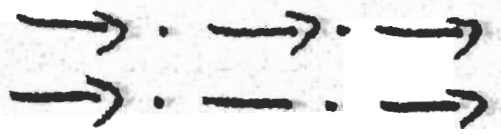
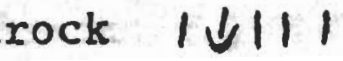
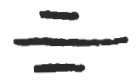
Clinton County, Indiana

SYMBOL LEGEND FOR CULTURAL FEATURES AND SPECIAL SYMBOLS

Conventional Symbols

Description	Symbol	Disposition
County Boundary		Retain
MCD		Retain
Neat Line		Retain
Ad Hoc Boundary		Retain
State Coordinate Tick		Retain
Section Corners		Retain
Roads, Divided		Retain
Other Roads		Retain
Interstate		Retain
Federal		Retain
State		Retain
Railroad		Retain
Dams		Retain as medium or small
Gravel Pit		Retain
Farmstead		Retain

Clinton County, Indiana

Description	Symbol	Disposition
Church		Retain
School		Retain
Perennial Stream (double line)		Retain
Perennial Stream (single line)		Retain
Intermittent Drainage		Retain 
Drainage End		Retain
Drainage Ditch		Retain as single line perennial stream
Lakes		Retain
Wet spot		Retain
Soil delineation		Retain
Escarpments other than bedrock		Retain
Short steep slope		Retain
Gravelly spot		Retain
Sandy spot		Retain
Severely eroded spot		Retain
Somewhat poorly drained area 1/2 to 3 acres in size		Delete

Clinton County, Indiana

Description	Symbol	Disposition
Well drained area 1/2 to 3 acres in size		Delete
Overwash		Delete

Ad Hoc Symbols to be Shown On Compiled Maps

Description	Symbol
Sanitary landfill 3 to 5 acres in size	#

Approved: October 6, 1978

Maurice Stout, Jr.
Head, Soils Staff
Midwest TSC

CONVERSION LEGEND FOR CLINTON COUNTY, INDIANA

Field symbol	Publication symbol	Field symbol	Publication symbol	Field symbol	Publication symbol	Field symbol	Publication symbol
Au	Wh	MsE3	MsD3	Wa	Wa		
BeA	Be	MtB2	MtB	We	We		
Br	Ty	Mx	Mx	Wh	Wh		
Bs	Ty	OcA	OcA	XeA	XeA		
CbA	CbA	OcB2	OcB	XeB2	XeB		
CeB2	MtB	Or	Ud				
CrA	FdA	PaA	PgB				
Cu	Ud	PaB	PgB				
CxB2	MtB	PaB2	PgB				
Da	DaA	PaC2	PgB				
DaB2	DaB	Pb	Pc				
DaB2	DaA	Pn	Pn				
Do	Be	Pr	Pr				
DoA	Be	Pt	PtA				
Dr	Dr	PtB	PtA				
FcA	FcA	PtB2	PtA				
FdA	FdA	Ra	Ra				
FdI	FcA	Ra	Cy				
Fg	RdA	RaC	Ra				
FgA	RdA	RaC	Sa				
FsA	CcA	RaMA	Sc				
FsB2	FsB	Rd	RdA				
FsC2	FsC	ReA	Re				
G.P.	Pr	RuA	CbA				
Gn	Gn	RuB2	RuB				
HeF	HeF	Sd	Sd				
Ho	Ho	Sh	Ce				
JaA	PtA	Sm	DaA				
JaB	PtA	SmA	DaA				
JaB2	PtA	SmB	DaB				
Ma	Ma	SmB2	DaB				
McA	McA	St	St				
McB2	McB2	Su	Su				
MnA	MwA	Sw	Pc				
MnB2	MtB	SxA	Sx				
MnC2	MnC	Sy	Pc				
MnD2	MnD	Sz	La				
MnE2	HeF	To	FcA				
MsC3	MsC3	ToA	FcA				
MsD3	MsD3	Uf	Ud				

Clinton County, Indiana

CLASSIFICATION OF PEDONS SAMPLED FOR LABORATORY ANALYSIS

List of Pedons Characterized at Purdue Lab

Name Pedon was Sampled Under	Survey Number	Lab Number	Correlated As
Raub	S72IN12-1	CT7201	Raub*
Milford	S73IN12-1	CT7301	Saranac*
Camden	S75IN23-1	CT7501	Camden Variant*
Miami	S75IN23-2	CT7502	Miami taxadjunct (Aquic Hapludalfs)
Ragsdale	S75IN23-3	CT7503	Ragsdale*
Mahalasville	S75IN23-4	CT7504	Typic Haplaquolls; fine-silty, mixed, mesic (inclusion in Mahalasville)
Patton	S75IN23-5	CT7505	Patton*
Starks	S75IN23-6	CT7506	Starks* taxadjunct
Starks	S75IN23-7	CT7507	Starks taxadjunct
Crosby	S75IN23-8	CT7508	Crosby
Crosby	S75IN23-9	CT7509	Crosby taxadjunct
Ragsdale	S75IN23-10	CT7510	Drummer (inclusion in Treaty)
Brookston	S75IN23-11	CT7511	Brookston (inclusion in Treaty)
Brookston	S75IN23-12	CT7512	Treaty
Milford	S75IN23-13	CT7513	Milford
Camden	S75IN23-14	CT7514	Camden Variant
Patton	S75IN23-15	CT7515	Patton
Conover	S76IN23-1	CT7601	Aeric Ochraqualfs; fine-loamy, mixed, mesic (inclusion in Fincastle)
Toronto	S76IN23-2	CT7602	Fincastle
Drummer	S76IN23-3	CT7603	Drummer*
Flanagan	S76IN23-4	CT7604	Typic Argiaquolls; fine-silty, mixed, mesic (inclusion in Flanagan)
Proctor	S76IN23-5	CT7605	Proctor*
Fincastle	S76IN23-6	CT7606	Fincastle
Milford	S76IN23-7	CT7607	Milford*
Crosby	S76IN23-8	CT7608	Crosby taxadjunct (fine-loamy)
Crosby	S76IN23-9	CT7609	Crosby taxadjunct* (fine-loamy)

* Type location in county

Notes to Accompany
Classification and Correlation
of the Soils of
Clinton County, Indiana

by
Rodney F. Harner

CAMDEN VARIANT

This soil differs from the Camden series by having a solum developed in a sequence of loess, stratified drift and till. Several interpretations are different for this soil than for the Camden series. There were 3,118 acres mapped in the survey area, but the soil is not known to occur elsewhere. The soil is classified fine-silty, mixed, mesic Typic Hapludalfs.

CROSBY SERIES

The Crosby series is a taxadjunct because it is in the fine-loamy textural family. The average clay content of the upper 20 inches of the argillic horizon is just under 35 percent. This does not alter the usefulness or behavior of the soil.

CYCLONE SERIES

The Cyclone series was proposed and established in Clinton County for fine-silty, mixed, mesic Typic Argiaquolls. There were 30,435 acres mapped in the county.

STARKS SERIES

The Starks series is a taxadjunct because it has about 40 percent clay in the upper part of the argillic horizon. The average clay content of the upper 20 inches of the argillic horizon ranges from slightly above to slightly below 35 percent. This difference does not alter the usefulness or behavior of the soil.

WALLKILL SERIES

The color of the B horizon ranges to value of 2, which is darker than allowed in the series. The series is not considered a taxadjunct because of this minor difference.

WESTLAND SERIES

Form SCS-Soils-5 for the Westland series shows a rating of good for sand and gravel. The unified classifications cover both good and fair. The Westland soils in Clinton County fall in the fair category (SP-SM,GP-GM). Changes will be made on the Linolex to show a rating of fair for both sand and gravel.

CLASSIFICATION OF THE SOILS

[An asterisk in the first column indicates a taxadjunct to the series. See notes for a description of those characteristics of this taxadjunct that are outside the range of the series]

Soil name	Family or higher taxonomic class
Branton	Fine-silty, mixed, mesic Aquic Argiudolls
Camden Variant	Fine-silty, mixed, mesic Typic Hapludalfs
Ceresco	Coarse-loamy, mixed, mesic Fluvaquentic Hapludolls
*Crosby	Fine, mixed, mesic Aeric Ochraqualfs
Cyclone	Fine-silty, mixed, mesic Typic Argiaquolls
Dana	Fine-silty, mixed, mesic Typic Argiudolls
Drummer	Fine-silty, mixed, mesic Typic Haplaquolls
Fincastle	Fine-silty, mixed, mesic Aeric Ochraqualfs
Fox	Fine-loamy over sandy or sandy-skeletal, mixed, mesic Typic Hapludalfs
Genesee	Fine-loamy, mixed, nonacid, mesic Typic Udifluvents
Hennepin	Fine-loamy, mixed, mesic Typic Eutrochrepts
Houghton	Euic, mesic Typic Medisaprists
Landes	Coarse-loamy, mixed, mesic Fluventic Hapludolls
Mahalasville	Fine-silty, mixed, mesic Typic Argiaquolls
Martinsville	Fine-loamy, mixed, mesic Typic Hapludalfs
Miami	Fine-loamy, mixed, mesic Typic Hapludalfs
Milford	Fine, mixed, mesic Typic Haplaquolls
Ockley	Fine-loamy, mixed, mesic Typic Hapludalfs
Palms	Loamy, mixed, euic, mesic Terric Medisaprists
Parr	Fine-loamy, mixed, mesic Typic Argiudolls
Patton	Fine-silty, mixed, mesic Typic Haplaquolls
Proctor	Fine-silty, mixed, mesic Typic Argiudolls
Ragsdale	Fine-silty, mixed, mesic Typic Argiaquolls
Raub	Fine-silty, mixed, mesic Aquic Argiudolls
Reesville	Fine-silty, mixed, mesic Aeric Ochraqualfs
Russell	Fine-silty, mixed, mesic Typic Hapludalfs
Sable	Fine-silty, mixed, mesic Typic Haplaquolls
Saranac	Fine, mixed, mesic Fluvaquentic Haplaquolls
Sleeth	Fine-loamy, mixed, mesic Aeric Ochraqualfs

CLASSIFICATION OF THE SOILS--Continued

Soil name	Family or higher taxonomic class
Sloan	Fine-loamy, mixed, mesic Fluvaquentic Haplaquolls
*Starks	Fine-silty, mixed, mesic Aeric Ochraqualfs
Treaty	Fine-silty, mixed, mesic Typic Argiaquolls
Wallkill	Fine-loamy, mixed, nonacid, mesic Thaptc-Histic Fluvaquents
Westland	Fine-loamy, mixed, mesic Typic Argiaquolls
Whitaker	Fine-loamy, mixed, mesic Aeric Ochraqualfs
Xenia	Fine-silty, mixed, mesic Aquic Hapludalfs