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**CLASSIFICATION AND CORRELATION
OF
THE SOILS OF**

**DE KALB COUNTY
INDIANA**

JUNE 1980



**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
DeKalb County, Indiana

Ernie checked it out

This correlation was prepared by Robert I. Turner in consultation with Earnest L. Jensen, party leader, SCS, and David Van Houten, field specialist, Soils, SCS, during the week of September 17-21, 1979. The final correlation is based on the first draft of sections of the manuscript, field correlation, field sheets, correlation samples, some laboratory data, and interpretative information available with the standard series descriptions for the soils used in this soil survey area. Robert I. Turner participated in the comprehensive field review on October 16-20, 1978. A draft of the final correlation was reviewed by the SCS and the cooperating agencies in Indiana before it was approved and distributed.

Headnote for Detailed Soil Survey Legend:

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

SOIL CORRELATION OF
DEKALB COUNTY, INDIANA

Stickdown Check
OK

Field symbols	Field mapping unit name	Publi- cation symbol	Approved mapping unit name	
BaA	Blount silt loam, 0 to 2 percent slopes	<i>✓</i> BaA	Blount silt loam, 0 to 2 percent slopes	<i>⊗</i>
BaB2	Blount silt loam, 2 to 4 percent slopes, eroded	<i>✓</i> BaB2	Blount silt loam, 1 to 4 percent slopes, eroded	<i>⊗</i>
Mn	Milford silty clay loam	<i>✓</i> Bn	Bono silty clay	<i>⊗</i>
BoB	Boyer loamy sand, 0 to 6 percent slopes	<i>✓</i> BoB	Boyer sandy loam, 0 to 6 percent slopes	<i>⊗</i>
BoC	Boyer loamy sand, 6 to 12 percent slopes	<i>✓</i> BoC	Boyer sandy loam, 6 to 12 percent slopes	<i>⊗</i>
CrA	Conover loam, 0 to 3 percent slopes	<i>✓</i> CrA	Conover loam, 0 to 3 percent slopes	<i>⊗</i>
Em	Eel silt loam, frequently flooded	<i>✓</i> Em	Eel loam, frequently flooded	<i>⊗</i>
MoB2	Glynwood silt loam, 2 to 6 percent slopes, eroded	<i>✓</i> GnB2	Glynwood loam, 3 to 6 percent slopes, eroded	<i>⊗</i>
HaA	Haskins Variant loam, 0 to 3 percent slopes	<i>✓</i> HaA	Haskins loam, 0 to 3 percent slopes	<i>⊗</i>
HdB, HdC2	Hillsdale loamy sand, 2 to 6 percent slopes	<i>✓</i> HdB	Hillsdale fine sandy loam, 2 to 10 percent slopes	<i>⊗</i>
HW	Houghton muck, drained	<i>✓</i> HW	Houghton muck, drained	

DEKALB COUNTY, INDIANA --Continued

Field symbols	Field mapping unit name	Publication symbol	Approved mapping unit name
Ld	Landes Variant fine sandy loam, frequently flooded	Ld ✓	Landes fine sandy loam, frequently flooded
Mc	Martisco muck, undrained	Mc ✓	Martisco muck, undrained
MfB	Metea loamy sand, 2 to 6 percent slopes	MfB ✓	Metea loamy sand, 2 to 6 percent slopes
MoC2	Morley silt loam, 6 to 12 percent slopes, eroded	MoC2 ✓	Morley silt loam, 6 to 12 percent slopes, eroded
MoD2	Morley silt loam, 12 to 18 percent slopes, eroded	MoD2 ✓	Morley silt loam, 12 to 18 percent slopes, eroded
MoE2	Morley silt loam, 18 to 25 percent slopes, eroded	MoE2 ✓	Morley silt loam, 18 to 30 percent slopes, eroded
MrC3	Morley silty clay loam, 6 to 12 percent slopes, severely eroded	MrC3 ✓	Morley silty clay loam, 6 to 12 percent slopes, severely eroded
MrD3	Morley silty clay loam, 12 to 18 percent slopes, severely eroded	MrD3 ✓	Morley silty clay loam, 12 to 18 percent slopes, severely eroded
CdB	Ormas loamy sand, 0 to 6 percent slopes	CdB ✓	Ormas loamy sand, 0 to 6 percent slopes
OhB	Oshtemo loamy sand, 0 to 6 percent slopes	OhB ✓	Oshtemo sandy loam, 0 to 6 percent slopes
Pe	Pewamo silty clay loam	Pe ✓	Pewamo silty clay
RaB	Rawson Variant sandy loam, 2 to 6 percent slopes	RaB ✓	Rawson sandy loam, 2 to 6 percent slopes
Re	Rensselaer loam	Re ✓	Rensselaer loam

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DEKALB COUNTY, INDIANA --Continued

Field symbols	Field mapping unit name	Publi- cation symbol	Approved mapping unit name
Se	Sebewa loam	Se ✓	Sebewa sandy loam ✓ 10
MhB2	Miami loam, 2 to 6 percent slopes, eroded	SrB2 ✓	Strawn loam, 2 to 6 percent slopes, eroded ✓ 10
MhC2	Miami loam, 6 to 12 percent slopes, eroded	SrC2 ✓	Strawn loam, 6 to 12 percent slopes, eroded ✓ 10
MkC3	Miami clay loam, 6 to 12 percent slopes, severely eroded	StC3 ✓	Strawn clay loam, 6 to 12 percent slopes, severely eroded ✓ 10
MkD3	Miami clay loam, 12 to 18 percent slopes, severely eroded	StD3 ✓	Strawn clay loam, 12 to 18 percent slopes, severely eroded ✓ 10
Ud	Udorthents, loamy	Ud ✓	Udorthents, loamy ✓ 10
Wa	Walkkill silt loam	Wa ✓	Walkkill silt loam ✓ 10
Wt	Whitaker loam	Wt ✓	Whitaker silt loam ✓ 10

DeKalb County, Indiana

Series Established by This Correlation:

None

Series Dropped or Made Inactive:

None

Certification Statement:

The state soil scientist has certified that the field mapping is completed, and that both the detailed maps and the general soil maps are joined throughout the survey area and with the adjoining soil surveys. The state soil scientist further indicates that the typical pedons are located in representative areas and the legal description is correct and, furthermore, that the interpretations have been coordinated with the joining survey areas and are in accord with the information on the SCS-SOILS-5 forms.

The soil survey of DeKalb County, Indiana, joins the modern published soil surveys of Allen County, Indiana; Noble County, Indiana; Williams County, Ohio; the recently correlated soil survey of Steuben County, Indiana; and the project soil survey of Defiance County, Ohio. A more detailed explanation of all discrepancies in the join of the detailed soil map and the general soil map with these soil surveys is on file in the PSC's office and at the Indiana State Office.

The lines on the general soil maps join, although some names differ because of different proportions of components in map units, recognition of new series previously not separated in some of the older surveys, and differences in composition and definition of soils within different survey areas.

Most lines on the detailed soil maps join and similar series join, although some areas have different names. These differences are the result of knowledge learned through further study of the soils, defining series so they fit in Soil Taxonomy, recognition of new series not previously separated in soil surveys, and the inclusion of small amounts of some soils with soils in one survey area which were separated in other survey areas because of larger extent. In addition, a few individual delineations were too small on one side of the join line to show separately at the scale of map being made and are considered as contrasting inclusions in delineations representing soils of larger extent.

Verification of Exact Cooperator Names:

The state soil scientist has certified that the following statements for the front cover and in the third paragraph of the box inside the front cover read as follows for this soil survey:

DeKalb County, Indiana

A. Outside front cover and credit line on the general soil map:

United States Department of Agriculture
Soil Conservation Service
in cooperation with
Purdue University
Agriculture Experiment Station
and
Indiana Department of Natural Resources
Soil and Water Conservation Committee

B. Inside front cover:

This survey was made cooperatively by the Soil Conservation Service, Purdue University Agricultural Experiment Station, and Indiana Department of Natural Resources, Soil and Water Conservation Committee. It is part of the technical assistance furnished to the DeKalb County Soil and Water Conservation District. Financial assistance was made available by the Soil and Water Conservation Committee, DeKalb County Commissioners, and the Indiana Department of Natural Resources.

Disposition of Field Sheets:

The original field sheets for DeKalb County will be kept at the district office in DeKalb County where they will be later compiled and finished. The halftone positive mylars are considered as the original field sheets. Copies have been made for use by the work unit and for fire protection.

Prior Soil Survey Publication:

There is no prior soil survey publication for DeKalb County.

Instructions for Map Compilation and Map Finishing:

The symbols of the following conventional and special symbols legend are those that will be used in map finishing.

CONVERSION LEGEND FOR
DEKALB COUNTY, INDIANA

Field symbol	Publi-cation symbol						
BaA	BaA						
BaP2	BaB2						
BoB	BoB						
BoC	BoC						
CrA	CrA						
Em	Em						
HaA	HaA						
HdE	HdB						
HdC2	HdB						
Hw	Hw						
Ld	Ld						
Mc	Mc						
MfB	MfB						
MhB2	SrB2						
MhC2	SrC2						
MkC3	StC3						
MkD3	StD3						
Mn	Bn						
MoB2	GnB2						
MoC2	MoC2						
MoD2	MoD2						
MoE2	MoE2						
MrC3	MrC3						
MrD3	MrD3						
OdB	OdB						
OhB	OhB						
Pe	Pe						
RaB	RaB						
Re	Re						
Se	Se						
Ud	Ud						
Wa	Wa						
Wt	Wt						

CLASSIFICATION OF PEDONS SAMPLED FOR LABORATORY ANALYSIS

Laboratory Data--Purdue University

<u>Sampled As</u>	<u>Sample No.</u>	<u>Publication Map Symbol</u>	<u>Approved Classification</u>
Blount	S76IN33-2-(1-5)	BaA	Blount
Boyer	S75IN33-2-(1-5)	BoB	Boyer
*Conover	S78IN33-11-(1-5)	CrA	Conover
*Eel	S77IN33-1-(1-6)	Em	Eel
Glynwood	S78IN33-8-(1-5)	GnB2	Glynwood ^{1/}
Haskins	S76IN33-1-(1-8)	HaA	Haskins taxadjunct
*Hillsdale	S78IN33-5-(1-6)	HdB	Hillsdale
*Landes	S78IN33-6-(1-5)	Ld	Landes
Metea	S78IN33-7-(1-7)	MfB	Metea taxadjunct
Metea	S75IN33-3-(1-8)	MfB	Metea taxadjunct
Miami	S76IN33-3-(1-5)	SrB2	Strawn
*Milford	S78IN33-1-(1-7)	Bn	Bono ^{1/} taxadjunct
Morley	S75IN33-1-(1-6)	MoC2	Morley
Morley	S76IN33-5-(1-6)	MoC2	Morley
*Oshtemo	S78IN33-2-(1-5)	OhB	Oshtemo
*Pewamo	S79IN33-1-(1-5)	Pe	Pewamo taxadjunct
*Sebewa	S78IN33-4-(1-5)	Se	Sebewa taxadjunct
Westland	S75IN33-4-(1-7)	Wt	Westland Variant, included in map unit of Whitaker
Whitaker	S76IN33-4-(1-6)	Wt	Whitaker

Engineering Test Data

<u>Sampled As</u>	<u>Sample No.</u>	<u>Publication Map Symbol</u>	<u>Approved Classification</u>
Blount	S76IN033-002	BaA	Blount
Morley	S75IN033-001	MoC2	Morley

^{1/} Coarse fragment content in solum doesn't accord with correlation samples.

* SCS-SOILS-8 forms have been prepared.

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

by
Robert I. Turner

BONO SERIES

Bono soils are taxadjuncts to the Bono series as they have less clay in the C horizon than defined for the Bono series. In addition, the erratic organic carbon content in the lower part of the soil and the abnormally large amount of coarse fragment reported in the laboratory data are outside the range of the Bono series.

BOYER SERIES

Boyer soils contain the maximum amount of coarse fragments and the maximum amount of clay allowed in the range of the Boyer series.

EEL SERIES

Eel soils are leached of free carbonates to greater depths than is typical for the Eel series. They also have darker colors in the lower part of the C horizon than defined for the Eel series, but we did not call them taxadjuncts on this account.

GLYNWOOD SERIES

Glynwood soils have a minimal thickness and are in the least acid portion of the range in reaction for the Glynwood series. In addition, the laboratory data indicate a maximum amount of coarse fragments which are not considered representative for the series in this survey area.

HASKINS SERIES

Haskins soils contain slightly less clay in the lower part of the solum and control section than defined for the Haskins series and, for that reason, are considered as taxadjuncts. A new series was proposed for these soils, but it did not differ significantly in terms of soil properties or in use and management from the Haskins series.

HILLSDALE SERIES

Hillsdale soils are slightly less acid than defined for the series, but we have not called them taxadjuncts on that account.

HOUGHTON SERIES

Houghton soils in this survey area are considered in the most permeable part of the range of the series.

LANDES SERIES

Landes soils contain more silt and less sand in the 10- to 40-inch control section than is typical for much of the Landes series as it occurs in other soil survey areas. They are judged to be within the range of the series and are so named. Many areas of the underlying material between depths of 40 and 60 inches is light loam or light silt loam, but in numerous other areas ranges to loamy sand. Proof of variability will be brought out in the map unit writeup.

METEA SERIES

Metea soils are taxadjuncts as they have more clay in the subsoil and underlying material than defined for the Metea series.

ORMAS SERIES

These soils are considered taxadjuncts to the Ormas series as the upper 11 inches of the argillic horizon consists of bands of lamellae which are outside the defined range of the Ormas series.

PEWAMO SERIES

These soils are taxadjuncts to the Pewamo series as they lack any evidence of having an argillic horizon. In addition, the organic carbon tends to increase with depth, which is not typical for the Pewamo series. The C horizon has slightly less clay than the defined range for the Pewamo series.

RAWSON SERIES

These soils are considered taxadjuncts to the Rawson series as they have less clay in the underlying material within depths of 40 inches than is defined for the Rawson series. The Owosso series is similar in terms of clay content, but the interpretations do not fit as well as for the Rawson series. A new series had been proposed for this soil, but it did not differ sufficiently in properties or in terms of use and management to justify the separation from Rawson and Owosso and numerous other closely competing series.

SEBEWA SERIES

Sebewa soils are taxadjunct to the Sebewa series as they lack an argillic horizon.

WALLKILL SERIES

These soils have a minimal thickness of mineral material which is siltier than is typical for the Wallkill series. We have not called them taxadjuncts on this account.

WHITAKER SERIES

These soils appear as marginal to fine-silty because a significant proportion of the sand appears to be very fine in size. These data are probably within the error of sampling, so we did not call these soils taxadjuncts.

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
Blount-----	Fine, illitic, mesic Aeric Ochraqualfs
*Bono-----	Fine, illitic, mesic Typic Haplaquolls
Boyer-----	Coarse-loamy, mixed, mesic Typic Hapludalfs
Conover-----	Fine-loamy, mixed, mesic Udollic Cchraqualfs
Eel-----	Fine-loamy, mixed, nonacid, mesic Aquic Udifulvents
Glynwood-----	Fine, illitic, mesic Aquic Hapludalfs
*Haskins-----	Fine-loamy, mixed, mesic Aeric Ochraqualfs
Hillsdale-----	Coarse-loamy, mixed, mesic Typic Hapludalfs
Houghton-----	Euic, mesic Typic Medisaprists
Landes-----	Coarse-loamy, mixed, mesic Fluventic Hapludolls
Martisco-----	Fine-silty, carbonatic, mesic Histic Humaquepts
*Metea-----	Loamy, mixed, mesic Arenic Hapludalfs
Morley-----	Fine, illitic, mesic Typic Hapludalfs
*Ormas-----	Loamy, mixed, mesic Arenic Hapludalfs
Oshtemo-----	Coarse-loamy, mixed, mesic Typic Hapludalfs
*Pewamo-----	Fine, mixed, mesic Typic Argiaquolls
*Rawson-----	Fine-loamy, mixed, mesic Typic Hapludalfs
Rensselaer---	Fine-loamy, mixed, mesic Typic Argiaquolls
*Sebewa-----	Fine-loamy over sandy or sandy-skeletal, mixed, mesic Typic Argiaquolls
Strawn-----	Fine-loamy, mixed, mesic Typic Hapludalfs
Udorthents-----	Loamy, mixed, nonacid, mesic Udorthents
Wallkill-----	Fine-loamy, mixed, nonacid, mesic Thapto-Histic Fluvaquents
Whitaker-----	Fine-loamy, mixed, mesic Aeric Ochraqualfs