

**CLASSIFICATION AND CORRELATION
OF
THE SOILS OF**

**ADAMS COUNTY
INDIANA**

JULY 1983



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

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UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
Midwest National Technical Center
Lincoln, Nebraska 68501

Classification and Correlation
of the Soils of
Adams County, Indiana

The final correlation on the classification and correlation of the soils of Adams County, Indiana, was made by Paul R. Johnson, soil correlator, MNTC, SCS, Lincoln, Nebraska, and Jerry D. Larson, soil specialist, SCS, Indianapolis, Indiana. Mr. Johnson reviewed typical pedons, map unit descriptions, field notes, laboratory data, soil correlation samples, field correlation, and SCS-SS-6 forms. Mr. Johnson also participated in the comprehensive field review which was held November 17-20, 1980. Problems in classification and correlation were discussed by telephone with Jerry D. Larson.

Headnote for Detailed Soil Survey Legend:

Map symbols consist of a combination of letters or of letters and numbers. The first capital letter is the initial 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 nearly level soils or miscellaneous areas. A final number of 2 indicates that the soil is moderately eroded.

<u>Field Symbol</u>	<u>Field Map Unit Name</u>	<u>Pub. Symbol</u>	<u>Approved Map Unit Name</u>
Am	Armiesburg silty clay loam, frequently flooded	) Am	Armiesburg silty clay loam, frequently flooded ✓
BcA Dc	Blount silt loam, 0 to 1 percent slopes	) BcA	Blount silt loam, 0 to 1 percent slopes
BcB	Blount silt loam, 1 to 4 percent slopes	) BcB	Blount silt loam, 1 to 4 percent slopes
Gc Ch Ge	Genesee loam, sandy substratum, frequently flooded	) Ch	Chagrin loam, frequently flooded
GoB GoB2	Glynwood silt loam, 3 to 8 percent slopes	) GoB	Glynwood silt loam, 3 to 8 percent slopes
HaA	Haskins loam, 1 to 3 percent slopes	) HaA	Haskins loam, 1 to 3 percent slopes
Ho	Houghton Muck, drained	Ho	Houghton muck, drained ✓
McA AvA OcA	Martinsville fine sandy loam, sandy substratum, 0 to 2 percent slopes	) McA	Martinsville loam, 0 to 2 percent slopes
McB AvB McC OcB	Martinsville fine sandy loam, sandy substratum, 2 to 6 percent slopes	) McB	Martinsville loam, 2 to 6 percent slopes
Mh Rh	Milford silty clay loam	) Mh	Milford silty clay loam
Mk Bo	Montgomery silty clay	) Mk	Montgomery silt clay
MoC2 MsC3	Morley silt clay loam, 6 to 12 percent slopes, eroded	) MoC2	Morley silty clay loam, 6 to 12 percent slopes, eroded
MoD2 MoE MoE2 MsD3	Morley silty clay loam, 12 to 18 percent slopes, eroded	) MoD2	Morley silty clay loam, 12 to 18 percent slopes, eroded
Na	Nappanee silt loam, 0 to 3 percent slopes	) Na	Nappanee silt loam, 0 to 3 percent slopes
Pm	Pewamo silty clay	Pm	Pewamo silty clay
Px	Pits	Px	Pits

<u>Field Symbol</u>	<u>Field Map Unit Name</u>		<u>Pub. Symbol</u>	<u>Approved Map Unit Name</u>
RdB OwB RdC	Rawson loam, 2 to 6 percent slopes	)	RdB	Rawson loam, 2 to 6 percent slopes
SaB2	St. Clair clay loam, 3 to 8 percent slopes, eroded	)	SaB2	St. Clair clay loam, 3 to 8 percent slopes, eroded
Sc	Saranac clay, frequently flooded	)	Sc	Saranac clay, frequently flooded
Sh	Shoals clay loam, frequently flooded	)	Sh	Shoals clay loam, frequently flooded
Sl So	Sloan loam, frequently flooded	)	Sl	Sloan loam, frequently flooded
Tc Ef	Tice silty clay loam	)	Tc	Tice silty clay loam, frequently flooded
Ud	Udorthents, loamy	)	Ud	Udorthents, loamy
Wh	Whitaker silt loam	)	Wh	Whitaker silt loam

Series Established by This Correlation:

None

Series Dropped or Made Inactive:

None

Certification Statement:

The state soil scientist certifies that:

1. Mapping was completed September 1982.
2. Adams County is joined by Allen County on the North (correlated in 1967), Van Wert and Mercer Counties, Ohio, on the East, Jay County on the South, and Wells County on the West.

The mapping along the Adams County line joins quite well in most instances except where similar soils were not correlated on the adjoining county mapping legends or where very small acreage units were combined with larger ones during correlation. The interpretations are similar in all instances so that no problem of use and management should arise. The general soil maps join reasonably well except for variation in extent of major soils or changes in concept of series. The interpretations are similar. Drainages of Adams County flow northwest through the county and carry Wisconsin age glacial sediments. The St. Marys River outlets into Lake Erie and the Wabash River outlets in the Gulf of Mexico.

3. Interpretations have been coordinated, and all typical pedons are in soil areas using the map unit name. The legal descriptions of the location of the typical pedons are correct.

Verification of Exact Cooperator Names:

For the front cover:

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

The cooperators listed on the inside of the front cover will read: "This survey was made cooperatively by the Soil Conservation Service, Purdue University Agricultural Experiment Station, and the Indiana Department of Natural Resources, Soil and Water Conservation Committee. It is part of the technical assistance furnished to the Adams County Soil and Water Conservation District. Financial assistance was made available by the Adams County Board of County Commissioners."

Disposition of Original Atlas Field Sheets:

The original atlas field sheets for Adams County will be retained by the Indiana State Office, and will be used in the map compilation and finishing procedures. Copies have been made for fire protection purposes. The state office at Indianapolis will prepare the atlas sheets for publication by October 1983.

Prior Soil Survey Publications:

A reference to the 1923 Soil Survey of Adams County, Indiana, will be made in the introduction of this publication. An example of how this might be done is as follows: "The soil survey of Adams County was made in 1923 (ref. citation). This survey updates the first survey and provides additional information and larger maps that show the soils in greater detail."

Soil Survey of Adams County, Indiana, Gover B. Jones and Mark Baldwin, U. S. Department of Agriculture, S. C. Jones, Thomas Jabine and T. M. Bushnell, Purdue University Agricultural Experiment Station, and Bayard J. Brill, Indiana Department of Geology. 20 pp., Illus., 1923.

Instructions for Map Compilation and Map Finishing:

The conventional and special symbols used in this survey are listed on the attached SCS-SOILS-37A. These are the only symbols that will be shown on the published maps. The maps will be furnished using the "Guide for Soil Map Finishing," July 1976.

PRIME FARMLAND MAP UNITS

The following map units meet the soil requirements for prime farmland:

<u>Pub.</u> <u>Symbol</u>	<u>Approved Map Unit Name</u>
Am	Armiesburg silty clay loam, frequently flooded (where protected from flooding)
BcA	Blount silt loam, 0 to 1 percent slopes (where drained)
BcB	Blount silt loam, 1 to 4 percent slopes (where drained)
Ch	Chagrin loam, frequently flooded (where protected from flooding)
GoB	Glynwood silt loam, 3 to 8 percent slopes
HaA	Haskins loam, 1 to 3 percent slopes (where drained)
McA	Martinsville loam, 0 to 2 percent slopes
McB	Martinsville loam, 2 to 6 percent slopes
Mh	Milford silty clay loam (where drained)
Mk	Montgomery silty clay loam (where drained)
Na	Nappanee silt loam, 0 to 3 percent slopes (where drained)
Pm	Pewamo silty clay (where drained)
RdB	Rawson loam, 2 to 6 percent slopes
SaB2	St. Clair clay loam, 3 to 8 percent slopes, eroded
Sc	Saranac clay, frequently flooded (where drained and protected from flooding)
Sh	Shoals clay loam, frequently flooded (where drained and protected from flooding)
Sl	Sloan loam, frequently flooded (where drained and protected from flooding)
Tc	Tice silty clay loam, frequently flooded (where protected from flooding)
Wh	Whitaker silt loam (where drained)

Approved: July 5, 1983

Rodney F. Harner

 RODNEY F. HARNER
 Head, Soils Staff
 Midwest NTC

CONVERSION LEGEND RELATING FIELD MAP SYMBOL
TO PUBLICATION SYMBOL

<u>Field Symbol</u>	<u>Publication Symbol</u>	<u>Field Symbol</u>	<u>Publication Symbol</u>
Am	Am	SaB2	SaB2
AvA	McA	Sc	Sc
AvB	McB	Sh	Sh
BcA	BcA	Sl	Sl
BcB	BcB	So	Sl
Bo	Mk	Tc	Tc
Ch	Ch	Ud	Ud
Dc	BcA	Wh	Wh
Ef	Tc		
Gc	Ch		
Ge	Ch		
GoB	GoB		
GoB2	GoB		
HaA	HaA		
Ho	Ho		
McA	McA		
McB	McB		
McC	McB		
Mh	Mh		
Mk	Mk		
MoC2	MoC2		
MoD2	MoD2		
MoE	MoD2		
MoE2	MoD2		
MsC3	MoC2		
MsD3	MoD2		
Na	Na		
OcA	McA		
OcB	McB		
OwB	RdB		
Pm	Pm		
Px	Px		
RdB	RdB		
RdC	RdB		
Rh	Mh		

Quarry

Px

CLASSIFICATION OF PEDONS SAMPLED
FOR LABORATORY ANALYSIS

Pedons Characterized at NSSL

<u>Sampled as</u>	<u>Pedon Sample No.</u>	<u>Pub. Symbol</u>	<u>Approved Series Name or Classification</u>
Armiesburg	S78IN-001-001	Am	Armiesburg (Taxadjunct)
Blount	S79IN-001-000	BcA	Blount
Bono	S80IN-001-001	Mk	Montgomery
Saranac	S78IN-001-008	Sc	Saranac
Tice	S78IN-001-009	Tc	Tice
--	S81IN-001-001	McA	Martinsville (Taxadjunct)

Pedons Characterized at Purdue Laboratory

<u>Sampled as</u>	<u>Pedon Sample No.</u>	<u>Pub. Symbol</u>	<u>Approved Series Name or Classification</u>
Alvin	S79IN1-10-(1-6)	McA	Martinsville (Inclusion)
Armiesburg	S78IN1-1-(1-8)	Am	Armiesburg (Taxadjunct)
Blount	S78IN1-2-(1-7)	BcA	Blount
Blount	S79IN1-4-(1-5)	BcA	Blount
Blount	S80IN1-5-(1-9)	BcA	Blount
Bono	S80IN1-12-(1-5)	Mk	Montgomery
Chagrin	S79IN1-8-(1-6)	Ch	Chagrin
Eel	S79IN1-3-(1-6)	Tc	Tice (Taxadjunct)
Glynwood	S78IN1-3-(1-6)	SaB2	St. Clair (Taxadjunct)
Glynwood	S79IN1-6-(1-6)	GoB	Glynwood (Taxadjunct)
Glynwood	S80IN1-2-(1-7)	GoB	Glynwood
Haskins	S78IN1-4-(1-6)	HaA	Haskins (Taxadjunct)
Milford	S78IN1-5-(1-7)	Mh	Milford
Morley	S80IN1-3-(1-6)	MoC2	Morley
Nappanee	S79IN1-7-(1-6)	Na	Nappanee

Pedons Characterized at Purdue Laboratory (continued)

<u>Sampled as</u>	<u>Pedon Sample No.</u>	<u>Pub. Symbol</u>	<u>Approved Series Name or Classification</u>
Pewamo	S78IN1-7-(1-8)	Pm	Pewamo (Taxadjunct)
Pewamo	S79IN1-1-(1-6)	Pm	Pewamo (Taxadjunct)
Pewamo	S80IN1-4-(1-7)	Pm	Pewamo (Taxadjunct)
Rawson	S79IN1-2-(1-5)	RdB	Rawson (Taxadjunct)
Rensselaer	S78IN1-6-(1-8)	Sl	Rensselaer (Inclusion)
Saranac	S78IN1-8-(1-7)	Sc	Saranac
Saranac	S79IN1-11-(1-5)	Sc	Saranac
Shoals	S79IN1-5-(1-7)	Sh	Shoals
Tice	S78IN1-9-(1-7)	Tc	Tice
Whitaker	S79IN1-9-(1-6)	Wh	Whitaker

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

by
Paul R. Johnson

ARMIESBURG SERIES

Silt loam textures are outside range of characteristics for Bw horizon, but this soil is not considered a taxadjunct.

CHAGRIN SERIES

Typical pedon described for the Genesee series fits the Chagrin series. Capability classification should be IIw. Map unit Ge is changed to map unit Ch, Chagrin loam, frequently flooded.

HASKINS SERIES

The Haskins soils are taxadjunct to the Haskins series because they contain less clay in the lower part of the solum and are more acid in the upper solum.

MARTINSVILLE SERIES

The Martinsville soils are taxadjunct to the series because they contain more coarse fragments in the lower solum than is typical for series. Typical pedon and IN0315 SIR has been changed to agree with lab data for sample S81IN-001-001.

MILFORD SERIES

The thickness of mollic epipedons of typical pedon is 1 inch less than allowed in series, but this soil is not considered a taxadjunct.

PEWAMO SERIES

The Pewamo soils are taxadjunct to the series because it lacks an argillic horizon and has more clay in substratum than defined for the series.

ST. CLAIR SERIES

The St. Clair soils are taxadjuncts to the series because they have lower pH, thicker solum and lower chroma mottles higher in the solum than described for the series. This soil would be classified as an Aquic Hapludalf, fine, illitic, mesic. It differs from the Glynwood series in having greater than 40 percent clay in the C horizons. It is mapped in association with the Nappanee soils and Glynwood is mapped in association with the Blount soils.

SARANAC SERIES

The thickness of mollic epipedon is thicker than allowed in series, but this soil is not considered a taxadjunct. A stratified substratum phase will be prepared by Indiana. Stratified substratums are within the range of the series. The capability classification of this soil is IIw, not Vw since it is well suited for all crops.

CLASSIFICATION OF THE SOIL

<u>Soil Name</u>	<u>Family or Higher Taxonomic Class</u>
Armiesburg	Fine-silty, mixed, mesic Fluventic Hapludolls
Blount	Fine, illitic, mesic Aeric Ochraqualfs
Chagrin	Fine-loamy, mixed, mesic Dystric Fluventic Entrochrepts
Glynwood	Fine, illitic, mesic Aquic Hapludalfs
Haskins*	Fine-loamy, mixed, mesic Aeric Ochraqualfs
Houghton	Euic, mesic Typic Medisaprists
Martinsville*	Fine-loamy, mixed, mesic Typic Hapludalfs
Milford	Fine, mixed, mesic Typic Haplaquolls
Montgomery	Fine, mixed, mesic Typic Haplaquolls
Morley	Fine, illitic, mesic Typic Hapludalfs
Nappanee	Fine, illitic, mesic Aeric Ochraqualfs
Pewamo*	Fine, mixed, mesic Typic Argiaquolls
Rawson	Fine-loamy, mixed, mesic Typic Hapludalfs
St. Clair*	Fine, illitic, mesic Typic Hapludalfs
Saranac	Fine, mixed, mesic Fluvaquentic Haplaquolls
Shoals	Fine-loamy, mixed, nonacid, mesic Aeric Fluvaquents
Sloan	Fine-loamy, mixed, mesic Fluvaquentic Haplaquolls
Tice	Fine-silty, mixed, mesic Fluvaquentic Hapludolls
Udorthents	Loamy, mixed, mesic Udorthents
Whitaker	Fine-loamy, mixed, mesic Aeric Ochraqualfs

*Taxadjunct--see "Notes to Accompany Classification and Correlation of the Soils of Adams County, Indiana" for details. Classification for taxadjuncts are included in the "Notes" if different than listed on the table.