

FILE COPY

CLASSIFICATION AND CORRELATION
OF
THE SOILS OF

**WHITE COUNTY
INDIANA**

AUGUST 1979



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
White County, Indiana

This correlation was prepared by G. J. Post in Lincoln, Nebraska, in phone consultation with Ray Sinclair, State Soil Scientist, during March 1979. The final correlation is based on the field correlation, draft of the manuscript, field sheets, correlation samples, and laboratory data. The descriptive legend, field sheets, and field descriptions were reviewed by DeWayne Williams, State Soil Correlator; and G. J. Post with the field party at the comprehensive review the week of April 25-29, 1977.

Headnote for Detailed Soil Survey Legend:

Map symbols consist of a combination of letters or letters and numbers. The first capital letter is the initial one of the mapping unit name. The lowercase letter that follows separates mapping 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 eroded.

SOIL CORRELATION OF
WHITE COUNTY, INDIANA
MARCH 1979

| Field symbols | Field mapping unit name | Publi- cation symbol | Approved mapping unit name |
|------------------------|--|----------------------------|--|
| AbA, Ge, Sa, Sh, Sc | Abscota loamy fine sand, 0 to 3 percent slopes | Ab | Abscota loamy fine sand, occasionally flooded |
| An, At | Adrian Variant muck | An | Ackerman muck, drained |
| AsA, OhA | Alvin fine sandy loam, 0 to 2 percent slopes | AsA | Alvin fine sandy loam, 0 to 2 percent slopes |
| AsB, OhB2, OhC2 | Alvin fine sandy loam, 2 to 6 percent slopes | AsB | Alvin fine sandy loam, 2 to 6 percent slopes |
| AuA, Au, CpA | Aubbeenaubbee fine sandy loam, 0 to 2 percent slopes | AuA | Aubbeenaubbee fine sandy loam, 0 to 1 percent slopes |
| BmA | Brems fine sand, 0 to 2 percent slopes | BmA | Brems loamy fine sand, 0 to 2 percent slopes |
| Ca | Chalmers silty clay loam, 0 to 2 percent slopes | Ca | Chalmers silty clay loam |
| ChB, ChB2, PlB | Chelsea fine sand, 2 to 6 percent slopes | ChB | Chelsea fine sand, 2 to 6 percent slopes |
| ChC, ChC2, PlC | Chelsea fine sand, 6 to 15 percent slopes | ChC | Chelsea fine sand, 6 to 15 percent slopes |
| Ck, Sn | Cohoctah loam | Ck | Cohoctah fine sandy loam, occasionally flooded |
| CnA, Cn | Conover loam, 0 to 2 percent slopes | CnA | Conover loam, 0 to 1 percent slopes |
| CsA, CrA | Crosier silt loam, 0 to 2 percent slopes | CsA | Crosier silt loam, 0 to 2 percent slopes |
| Dc | Darroch silt loam | Dc | Darroch silt loam |

WHITE COUNTY, INDIANA --Continued

| Field symbols | Field mapping unit name | Publi- cation symbol | Approved mapping unit name |
|------------------|---|----------------------------|---|
| LsA | Lisbon silt loam, 0 to 2 percent slopes | ElA | Elliott silt loam, 0 to 2 percent slopes |
| FoA | Foresman loam, 0 to 3 percent slopes | FoA | Foresman silt loam, 0 to 2 percent slopes |
| Gf | Gilford fine sandy loam | Gf | Gilford fine sandy loam |
| Gv | Gilford Variant fine sandy loam | Gv | Gilford fine sandy loam, limestone substratum |
| MaA, MeA | Martinsville silt loam, 0 to 2 percent slopes | MaA | Martinsville silt loam, 0 to 2 percent slopes |
| MaB2, MeB2, MeC2 | Martinsville silt loam, 2 to 8 percent slopes, eroded | MaB2 | Martinsville silt loam, 2 to 8 percent slopes, eroded |
| Mb, Gr, Mh | Maumee loamy fine sand | Mb | Maumee loamy fine sand |
| MoA, MtA | Montmorenci loam, 0 to 2 percent slopes | MoA | Montmorenci loam, 0 to 2 percent slopes |
| Mr, Mx | Morocco fine sand | Mr | Morocco fine sand |
| MuA, Mu | Mundelein silt loam, 0 to 2 percent slopes | MuA | Mundelein silt loam, 0 to 2 percent slopes |
| Mw, Hu | Muskego muck | Mw | Muskego muck |
| OaA, PlA, ChA | Oakville fine sand, 0 to 3 percent slopes | OaA | Oakville fine sand, wet substratum, 0 to 3 percent slopes |
| OcB, MtB2, OcB2 | Octagon silt loam, 2 to 6 percent slopes | OcB | Octagon silt loam, 2 to 6 percent slopes |
| OcC2 | Octagon silt loam, 6 to 12 percent slopes, eroded | OcC2 | Octagon silt loam, 6 to 12 percent slopes, eroded |

WHITE COUNTY, INDIANA --Continued

| Field symbols | Field mapping unit name | Publication symbol | Approved mapping unit name |
|------------------------------|--|--------------------|---|
| OeA, Oe | Odell loam, 0 to 2 percent slopes | OeA | Odell loam, 0 to 1 percent slopes |
| HdA, MKA, MKE2 | Hillsdale loamy fine sand, 0 to 3 percent slopes | OWA | Owosso fine sandy loam, 1 to 3 percent slopes |
| Pa, Pe | Patton silty clay loam | Pa | Pella silty clay loam |
| Ph, Du | Pella silty clay loam, till substratum | Ph | Pella silty clay loam, till substratum |
| Pt | Pits, quarries | Pt | Pits, quarries |
| Re | Rensselaer loam | Re | Rensselaer ^{clay} loam |
| Ro | Rensselaer loam, sandy substratum | Rg | Rensselaer clay loam, sandy substratum |
| Rm, Sb, Mz | Rensselaer Variant loam | Rm | Rensselaer Variant silt loam |
| RSA, RdA | Riddles silt loam, 0 to 2 percent slopes | RSa | Riddles silt loam, 0 to 2 percent slopes |
| AsB2, Mnb2, Mnc2, Mnd2, Rdb2 | Riddles silt loam, 2 to 8 percent slopes, eroded | RSB2 | Riddles silt loam, 2 to 8 percent slopes, eroded |
| Se, Ed | Seafield fine sandy loam | Se | Seafield fine sandy loam |
| Sf, Sr, Fr | Seafield Variant fine sandy loam | Sf | Seafield Variant fine sandy loam |
| SpA, AyA, AyB2, SpB, SpB2 | Sparta fine sand, 0 to 3 percent slopes | SpA | Sparta fine sand, 0 to 3 percent slopes |
| ToA | Toronto Variant silt loam, 0 to 2 percent slopes | ToA | Toronto silt loam, 0 to 1 percent slopes |

WHITE COUNTY, INDIANA --Continued

| Field symbols | Field mapping unit name | Publi- cation symbol | Approved mapping unit name |
|---------------|--|----------------------------|--|
| SaB2 | Saybrook silt loam, 1 to 6 percent slopes, eroded | VaB2 | Varna silt loam, 1 to 6 percent slopes, eroded |
| Wa, Wk | Watseka loamy fine sand | Wa | Watseka loamy fine sand |
| Wh, Wt | Whitaker silt loam | Wh | Whitaker silt loam |
| WnB2 | Wingate Variant silt loam, 1 to 6 percent slopes, eroded | WnB2 | Wingate Variant silt loam, 1 to 6 percent slopes, eroded |
| Wo, Br | Wolcott clay loam | Wo | Wolcott clay loam |
| Wv, Wr | Wolcott Variant clay loam | Wv | Wolcott clay loam, limestone substratum |

White County, Indiana

Series established by this correlation:

Ackerman (White County, Indiana)
Seafield (White County, Indiana)
Wolcott (White County, Indiana)

Series dropped or made inactive:

None

Certification Statement:

White County joins the modern published Pulaski County soil survey. The general soil map and the detailed maps are adequately joined to this survey. Adjoining Carroll and Tippecanoe Counties have soil surveys which were completed in 1940 and published at a scale of 1:31,680. It is difficult to join these maps with White County because of map scale differences and changes in series concepts over this time spread. Generally, the soil drainage classes join fairly well and, thus, many of the interpretations are similar.

All typical pedons are located in a delineation of the named soil.

All field mapping has been completed.

Verification of Cooperators Names:

On the front cover cooperators citation will read:

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

In the box on the inside of the front cover, the statement will include the above as well as the following:

"Financial assistance was made available by the White County Board of Commissioners." *and the County Council*

Prior Soil Survey Publications:

A reference to the 1915 White County soil survey should be in the introduction of this publication. The prior published survey will be a literature citation. For example, the first soil survey of White County was completed in 1915 and published in 1919 (ref. cit. see below). This survey updates the first survey and provides additional information and larger maps that show the soils in greater detail.

Soil Survey of White County Indiana. Bushnell, T. M. and Erni, C. P., U.S. Bureau of Soils, in Cooperation with the Indiana Department of Geology, 88pp., Illus., 1915, published in 1919.

White County, Indiana

Disposition of Field Sheets:

The original field sheets are retained in the state and are to be used in map finishing.

Instructions for Map Compilation and Finishing:

Additional field studies and laboratory data, after much of the field mapping was completed, indicated some field symbols needed to be changed in certain areas of the county. Following is a general listing of these changes. The exact location of where these changes are to be made is more accurately shown on a set of blueline copies of all the field sheets on file in the Indiana State Office as well as with the Soils Staff, MTSC.

1. Atlas sheets 1-5, 7-11, 13-17, 20-23, east one-half of 19, and the northwest one-half of 27 all Re and Ro field symbols are to be changed to Rg.
2. The southern part of atlas sheets 29 and 30, the northern parts of atlas sheets 33 and 34, and the west-central part of atlas sheet 35, field symbols Br, Du, Ca, and Wo are to be changed to Ph; Cn, Oe, CrA, and LsA to E1A; and MtA, MtB2, OcB, OcC2, SaB2, MkA, and MkB2 to VaB2.
3. Atlas sheets 33 and 37, field symbols Re and Ro are to be changed to Pe; Br, Du, and Wo to Ca; Cn, Oe, and CrA to ToA; and MkA, MkB2, MtA, MtB2, OcB, and OcC2 to WnB2.

The conventional and special symbols used in field mapping will be compiled using the appropriate symbols from SCS-SOILS-37A.

SOIL SURVEY
375
Soil Survey Area
Date

White County
Indiana

CONVENTIONAL AND SPECIAL SYMBOLS LEGEND

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Date: _____

| DESCRIPTION | SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION | SYMBOL |
|--|--------|--|--------|---|--------|
| CULTURAL FEATURES | | CULTURAL FEATURES (cont.) | | SPECIAL SYMBOLS FOR SOIL SURVEY | |
| BOUNDARIES | | MISCELLANEOUS CULTURAL FEATURES | | SOIL DELINEATIONS AND SOIL SYMBOLS | |
| County or section | | Farmstead, house (omit in urban areas) | * | ESCARPMENTS | |
| Minor section | | Church | + | Other than bedrock (points down slope) | |
| Field sheet margin line & heading | | School | ⊠ | SHORT STEEP SLOPE | |
| AD HOC BOUNDARY (label) | | WATER FEATURES | | MISCELLANEOUS | |
| Cemetery | | DRAINAGE | | Blowout | |
| STATE COORDINATE TICK (500,000 FEET) | | Perennial, double line | | Gravelly spot | |
| LAND DIVISION CORNERS (sections and land grants) | | Perennial, single line | | Sandy spot | |
| ROADS | | Intermittent | | Severely eroded spot | |
| Divided (median shows if scale permits) | | Drainage end | | Stony spot | |
| County, farm or ranch | | Canals or ditches | | RECOMMENDED AD HOC SOIL SYMBOLS | |
| ROAD EMBLEMS & DESIGNATIONS | | Drainage and/or irrigation | | Calcareous spot (10 acres or less) | |
| Interstate | | LAKES, PONDS AND RESERVOIRS | | Muck spot (3 acres or less) | |
| Federal | | Perennial | | Undrained spot (5 acres or less) | |
| State | | Intermittent | | Sanitary landfill (5 acres or less) | |
| RAILROAD | | MISCELLANEOUS WATER FEATURES | | Iron accumulation (5 acres or less) | |
| LEVEES | | | | | |
| DAMS | | | | | |
| Large (to scale) | | | | | |
| Medium or small | | | | | |
| PITS | | | | | |
| Gravel pit | | | | | |

Approved: August 20, 1979

Maurice Stout, Jr.

Maurice Stout, Jr.
Head, Soils Staff
Midwest TSC

CONVERSION LEGEND FOR
WHITE COUNTY, INDIANA
MARCH 1979

| Field symbol | Publi-cation symbol |
|--------------|---------------------|--------------|---------------------|--------------|---------------------|--------------|---------------------|
| AbA | Ab | MeC2 | MaB2 | SaB2 | VaB2 | | |
| An | An | Mh | Mb | Sb | Rm | | |
| AsA | AsA | MkA | OwA | Sc | Ab | | |
| AsB | AsE | MkB2 | OwA | Se | Se | | |
| At | An | MnB2 | RsB2 | Sf | Sf | | |
| Au | AuA | MnC2 | RsB2 | Sh | Ab | | |
| AuA | AuA | MnD2 | RsB2 | Sn | Ck | | |
| AyA | SpA | MoA | MoA | SpA | SpA | | |
| AyB2 | SpA | Mr | Mr | SpB | SpA | | |
| Bd | Se | MtA | MoA | SpB2 | SpA | | |
| BmA | BmA | MtB2 | OcB | Sr | Sf | | |
| Br | Wo | Mu | MuA | ToA | ToA | | |
| Ca | Ca | MuA | MuA | Wa | Wa | | |
| ChA | OaA | Mw | Mw | Wh | Wh | | |
| ChE | ChB | Mx | Mr | Wk | Wa | | |
| ChB2 | ChE | Mz | Rm | WnB2 | WnB2 | | |
| ChC | ChC | OaA | OaA | Wo | Wo | | |
| ChC2 | ChC | OcB | OcB | Wr | Wv | | |
| Ck | Ck | OcB2 | OcB | Wt | Wh | | |
| Cn | CnA | OcC2 | OcC2 | Wv | Wv | | |
| CnA | CnA | Oe | OeA | | | | |
| CpA | AuA | OeA | OeA | | | | |
| CrA | CsA | OhA | AsA | | | | |
| CsA | CsA | OhB2 | AsB | | | | |
| Dc | Dc | OhC2 | AsB | | | | |
| Du | Ph | Pa | Pa | | | | |
| FoA | FoA | Pe | Pa | | | | |
| Fr | Sf | Ph | Ph | | | | |
| Ge | Ab | PlA | OaA | | | | |
| Gf | Gf | PlB | ChB | | | | |
| Gr | Mb | PlC | ChC | | | | |
| Gv | Gv | Pt | Pt | | | | |
| HdA | OwA | RdA | RsA | | | | |
| Hu | Mw | RdB2 | RsB2 | | | | |
| LsA | ElA | Re | Re | | | | |
| MaA | MaA | Rm | Rm | | | | |
| MaB2 | MaB2 | Ro | Rg | | | | |
| Mb | Mb | RsA | RsA | | | | |
| MeA | MaA | RSB2 | RSB2 | | | | |
| MeB2 | MaB2 | Sa | Ab | | | | |

White County, Indiana

CLASSIFICATION OF PEDONS SAMPLED FOR LABORATORY ANALYSIS

There are considerable data available from a number of pedons in this survey area. However, much of this data is for partial pedons as well as only partial data on the complete pedons that were sampled. All the data are being reviewed by the state and proper classification determined. These data will be stored on the Purdue Computer System.

White County, Indiana

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

by
Gerald J. Post

ACKERMAN SERIES

This series is established by this correlation. There are about 2,500 acres of this soil in this survey area, and it will be needed in several additional nearby counties. These soils were formerly included with the Adrian series.

ALVIN SERIES

These soils have a slightly thinner solum and a slightly higher pH in the solum than is defined in the series. However, these differences are not significant enough to consider these soils to be taxadjuncts.

BREMS SERIES

These soils have slightly more fine and very-fine sand in the solum than is defined in the series. Thus, these soils are considered to be taxadjuncts to the Brems series.

COHOCTAH SERIES

This soil has a neutral reaction below a depth of 20 inches rather than mildly or moderately alkaline as described in the series. However, this difference is not significant enough to consider these soils to be taxadjuncts.

DARROCH SERIES

These soils have a C horizon that is slightly sandier, lacks significant stratification, and is not calcareous as is defined for the series. Thus, these soils are considered to be taxadjuncts to the Darroch series.

FOESMAN SERIES

These soils lack stratification and free carbonates in the upper part of the C horizon and have slightly grayer colors in the B horizon than is defined for the series. Thus, they are considered to be taxadjuncts to the Foresman series.

GILFORD SERIES

These soils have a slightly higher content of fine and very-fine sand in the solum than is defined for the series. Thus, they are considered to be taxadjuncts to the Gilford series.

MAUMEE SERIES

These soils have a slightly browner lower C horizon than is defined for the series. However, this difference is not significant enough to consider these soils to be taxadjuncts.

White County, Indiana

MOROCCO SERIES

These soils have slightly more fine and very-fine sand in the solum than is defined for the series. Thus, these soils are considered to be taxadjuncts to the Morocco series.

RENSSELAER VARIANT

This soil has a fine-loamy over sandy or sandy-skeletal texture control section rather than fine-loamy. There are slightly more than 2,000 acres of this soil, but it will not be needed in any other survey area.

SEAFIELD SERIES

This series is established by this correlation. There are over 15,000 acres in this survey area, and it is needed in several nearby counties. These soils were formerly included with the Brady series.

SEAFIELD VARIANT

This soil classified as Aquollic Hapludalfs rather than Mollic Ochraqualfs as Seafield is. Also, this soil has limestone bedrock at a depth of 40 to 60 inches. There are about 1,700 acres of this soil in the county, and it is unlikely that it will be needed again in any other survey area.

WINGATE VARIANT

This soil is grayer throughout the solum and is an appreciably wetter soil than is Wingate. There are about 1,700 acres in this survey area, and this soil will not be needed in any other surveys.

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 |
|------------------------|--|
| Abscote----- | Mixed, mesic Typic Udipsamments |
| Ackerman----- | Sandy, mixed, mesic Histic Humaquepts |
| Alvin----- | Coarse-loamy, mixed, mesic Typic Hapludalfs |
| Aubbeenaubbee | Fine-loamy, mixed, mesic Aeric Ochraqualfs |
| *Brans----- | Mixed, mesic Aquic Udipsamments |
| Chalmers----- | Fine-silty, mixed, mesic Typic Haplaquolls |
| Chelsea----- | Mixed, mesic Alfic Udipsamments |
| Cohoctah----- | Coarse-loamy, mixed, mesic Fluvaquentic Haplaquolls |
| Conover----- | Fine-loamy, mixed, mesic Udollic Ochraqualfs ✓ |
| Crosier----- | Fine-loamy, mixed, mesic Aeric Ochraqualfs |
| *Darroch----- | Fine-loamy, mixed, mesic Aquic Argiudolls |
| Elliott----- | Fine, illitic, mesic Aquic Argiudolls |
| *Foresman----- | Fine-loamy, mixed, mesic Typic Argiudolls |
| *Gilford----- | Coarse-loamy, mixed, mesic Typic Haplaquolls |
| Martinsville | Fine-loamy, mixed, mesic Typic Hapludalfs |
| Maumee----- | Sandy, mixed, mesic Typic Haplaquolls |
| Montmorenci | Fine-loamy, mixed, mesic Aquollic Hapludalfs |
| *Morocco----- | Mixed, mesic Aquic Udipsamments |
| Murdeleir---- | Fine-silty, mixed, mesic Aquic Argiudolls |
| Muskego----- | Coprogeous, euc, mesic Limnic Medisaprists |
| Oakville----- | Mixed, mesic Typic Udipsamments |
| Octagon----- | Fine-loamy, mixed, mesic Mollic Hapludalfs |
| Odell----- | Fine-loamy, mixed, mesic Aquic Argiudolls |
| Owosso----- | Fine-loamy, mixed, mesic Typic Hapludalfs |
| Pella----- | Fine-silty, mixed, mesic Typic Haplaquolls |
| Rensselaer--- | Fine-loamy, mixed, mesic Typic Argiaquolls |
| Rensselaer Variant. | Fine loamy over sandy or sandy skeletal, mixed, mesic Typic Argiaquolls |
| Riddles----- | Fine-loamy, mixed, mesic Typic Hapludalfs |
| Seafield----- | Coarse-loamy, mixed, mesic Mollic Ochraqualfs |
| Seafield Variant | Coarse-loamy, mixed, mesic Aquollic Hapludalfs |

CLASSIFICATION OF THE SOILS--Continued

| Soil name | Family or higher taxonomic class |
|---------------------|--|
| Sparta----- | Sandy, mixed, mesic Entic Hapludolls |
| Toronto----- | Fine-silty, mixed, mesic Udollic Ochraqualfs |
| Vanna----- | Fine, illitic, mesic Typic Argiudolls |
| Watseka----- | Sandy, mixed, mesic Aquic Hapludolls |
| Whitaker----- | Fine-loamy, mixed, mesic Aeric Ochraqualfs |
| Wingate Variant. | Fine silty, mixed, mesic Aquollic Hapludalfs |
| Wolcott----- | Fine-loamy, mixed, mesic Typic Haplaquolls |