County File 4,5

# CLASSIFICATION AND CORRELATION OF THE SOILS OF

# DECATUR COUNTY INDIANA

AUGUST 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 Decatur County, Indiana

This correlation was prepared by Robert I. Turner in consultation with Jerold L. Shively, party leader, SCS, and Jerry D. Larson, field specialist, Soils Staff, SCS, during the week of November 5-8, 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 September 11-15, 1978. A draft of the final correlation was reviewed by the SCS and the cooperating agencies in Indiana before it was approved and distributed.

Head note for detailed soil survey legend:
The first capital letter is the initial one of the soil name. The lower case letter that follows separates mapping units that have 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 the slope range of 0 to 2 percent or for map units for which the slope was not part of the name. The final number of two or three in the symbol indicates that the soil is eroded or severely eroded, respectively.

SOIL CORRELATION OF
DECATUR COUNTY, INDIANA

| Field symbols | Field mapping unit name | Publi-cation symbol | Approved mapping unit name |
|---|---|---|---|
| AvA | Avonburg silt loam, 0 to 2 percent slopes | AvA | Avonburg silt loam, 0 to 2 percent slopes |
| AvB, DuA | Avonburg silt loam, 2 to 4 percent slopes | AvB | Avonburg silt loam, 2 to 4 percent slopes |
| Ge, Cg, Rm | Chagrin loam | Cg | Chagrin loam, frequently flooded |
| Gg, Ch | Chagrin Variant silt loam, frequently flooded | Ch | Chagrin Variant silt loam, frequently flooded |
| CcB2, PaB2 | Cincinnati silt loam, 2 to 6 percent slopes, eroded | CkB2 | Cincinnati silt loam, 2 to 6 percent slopes, eroded |
| CcC2, CcD2 | Cincinnati silt loam, 6 to 12 percent slopes, eroded | CkC2 | Cincinnati silt loam, 6 to 12 percent slopes, eroded |
| CcC3, CcD3 | Cincinnati silt loam, 6 to 12 percent slopes, severely eroded | CkC3 | Cincinnati silt loam, 6 to 12 percent slopes, severely eroded |
| Cm | Clermont silt loam | Cm | Clermont silt loam |
| FaG, EdE | Farmington silt loam-Rock outcrop complex, 15 to 35 percent slopes | CnG | Corydon-Rock outcrop complex, 15 to 35 percent slopes |
| CrA, CrB | Crosby silt loam, 0 to 3 percent slopes | CrA | Crosby silt loam, 0 to 3 percent slopes |
| Br | Treaty silt loam | Cy | Cyclone silt loam |
| FcA | Fincastle silt loam, 0 to 2 percent slopes | FcA | Fincastle silt loam, 0 to 2 percent slopes |
| FcB | Fincastle silt loam, 2 to 4 percent slopes | FcB | Fincastle silt loam, 2 to 4 percent slopes . |

DECATUR COUNTY, INDIANA --Continued

| Field symbols | Field mapping unit name | Publi-cation symbol | Approved mapping unit name |
|---|---|---|---|
| FoA | Fox loam, 0 to 2 percent slopes | FoA | Fox loam, 0 to 2 percent slopes |
| FoB2, FoC2, FxC3 | Fox loam, 2 to 6 percent slopes, eroded | FoB | Fox loam, 2 to 6 percent slopes |
| GrD2, GrD3, GrE | Grayford silt loam, 10 to 20 percent slopes, eroded | GfD | Grayford silt loam, 10 to 20 percent slopes |
| GrC2, GrB2, GrC3 | Grayford-Ryker silt loams, 4 to 10 percent slopes | GrC2 | Grayford-Ryker silt loams, 4 to 10 percent slopes eroded |
| HeG, HeF | Hennepin loam, 35 to 60 percent slopes | HeG | Hennepin loam, 35 to 60 percent slopes |
| HkD2 | Hickory loam, 12 to 18 percent slopes, eroded | HkD2 | Hickory loam, 12 to 18 percent slopes, eroded |
| HkE2, HkE | Hickory loam, 18 to 25 percent slopes, eroded | HkE2 | Hickory loam, 18 to 25 percent slopes, eroded |
| HkF, HkF2 | Hickory loam, 25 to 50 percent slopes | HkF | Hickory loam, 25 to 50 percent slopes |
| HkD3 | Hickory clay loam, 12 to 18 percent slopes, eroded | HlD3 | Hickory clay loam, 12 to 18 percent slopes, severely eroded |
| Ee | Lobdell silt loam, frequently flooded | Lb | Lobdell silt loam, frequently flooded |
| MeA | Martinsville loam, 0 to 2 percent slopes | MeA | Martinsville loam, 0 to 2 percent slopes |
| MeB2, EkB2, MeB | Martinsville loam, 2 to 6 percent slopes, eroded | MeB2 | Martinsville loam, 2 to 6 percent slopes, eroded |
| MmB2, MoB3, KeA, KeB2 | Miami silt loam, 2 to 6 percent slopes, eroded | MmB2 | Miami silt loam, 2 to 6 percent slopes, eroded |

DECATUR COUNTY, INDIANA --Continued

| Field symbols | Field mapping unit name | Publication symbol | Approved mapping unit name |
|---|---|---|---|
| MmC2, MeC2 | Miami silt loam, 6 to 12 percent slopes, eroded | MmC2 | Miami silt loam, 6 to 12 percent slopes, eroded |
| MmD2 | Miami silt loam, 12 to 18 percent slopes, eroded | MmD2 | Miami silt loam, 12 to 18 percent slopes, eroded |
| MoC3, MeC3 | Miami clay loam, 6 to 12 percent slopes, severely eroded | MoC3 | Miami clay loam, 6 to 12 percent slopes, severely eroded |
| MoD3 | Miami clay loam, 12 to 18 percent slopes, severely eroded | MoD3 | Miami clay loam, 12 to 18 percent slopes, severely eroded |
| Mr | Milford silty clay loam | Mr | Milford silty clay |
| Ms | Millsdale silty clay loam | Ms | Millsdale silty clay loam |
| MtA | Milton silt loam, 0 to 2 percent slopes | MtA | Milton silt loam, 0 to 2 percent slopes |
| MtB2, MtB, MtD | Milton silt loam, 2 to 6 percent slopes, eroded | MtB2 | Milton silt loam, 2 to 6 percent slopes, eroded |
| We | Montgomery silty clay, gravelly substratum | My | Montgomery silty clay, gravelly substratum |
| OcA, CaA | Ockley Variant silt loam, 0 to 2 percent slopes | OcA | Ockley silt loam, 0 to 2 percent slopes |
| OcB2, CaB, CaB2 | Ockley Variant silt loam, 2 to 6 percent slopes, eroded | OcB | Ockley silt loam, 2 to 6 percent slopes |
| Sh | Shoals silt loam, frequently flooded | Or | Orrville silt loam, frequently flooded |
| RoG, RoF | Rodman gravelly sandy loam, 35 to 60 percent slopes | RoG | Rodman gravelly sandy loam, 35 to 60 percent slopes |

DECATUR COUNTY, INDIANA --Continued

| Field symbols | Field mapping unit name | Publication symbol | Approved mapping unit name |
|---|---|---|---|
| RsB2, RsA, PeA, PeB2 | Rossmoyne silt loam, 2 to 6 percent slopes, eroded | RsB2 | Rossmoyne silt loam, 2 to 6 percent slopes, eroded |
| RuB2, RuA | Russell silt loam, 2 to 6 percent slopes, eroded | RuB | Russell silt loam, 1 to 5 percent slopes |
| So | Sloan silt loam, frequently flooded | So | Sloan silt loam, frequently flooded |
| SrA | Starks silt loam | Sr | Starks silt loam |
| St | Stonelick fine sandy loam, frequently flooded | St | Stonelick fine sandy loam, frequently flooded |
| Pt | Udorthents-Pits complex | Ud | Udorthents-Pits complex |
| CbB2, CbA, MmA | Celina silt loam, 2 to 6 percent slopes, eroded | WmB | Williamstown silt loam, 1 to 5 percent slopes |
| XnA, XeA | Xenia silt loam, 0 to 2 percent slopes | XnA | Xenia silt loam, 0 to 2 percent slopes |
| XnB2 | Xenia silt loam, 2 to 6 percent slopes, eroded | XnB | Xenia silt loam, 2 to 4 percent slopes |

Decatur County, Indiana

Series Established by This Correlation:

Williamstown

Series Dropped or Made Inactive:

None

Certification Statement:
The state soil scientist has certified that the field map is completed and that the detailed maps and the general soil maps are joined throughout the survey and with 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 adjoining soil survey areas and are in accord with the information on the SCS-SOILS-5 forms.

The soil survey of Decatur County, Indiana, joins the modern published soil surveys of Bartholomew, Jennings, and Shelby Counties, Indiana, and the project soil surveys of Rush and Ripley Counties, Indiana. 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.

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 are to read as follows for this soil survey area.

1. Outside front cover, on general soil map and on the half title page will read as follows:

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

2. Inside front cover will contain the following:

This soil 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 Decatur County Soil and Water Conservation District and the area Planning Commission. Financial assistance was made available by the Decatur County Commissioners and approved by the County Council.

Disposition of Field Sheets:
The original field sheets for Decatur County are being kept by the party leader until the maps have been compiled and finished. Copies have been made for fire protection purposes.

Prior Soil Survey Publications:
There was a prior soil survey for Decatur County, Indiana, published in 1910 which should be listed as a citation reference and noted in the introduction of this soil survey. An example of the way this might be done follows:

"The first soil survey for Decatur County was published in 1910 (reference citation). This survey updates the first survey and provides additional information and larger maps that show the soils in greater detail."

Instructions for Map Compilation:
As previously noted, the original field sheets have already been compiled on halftone positive mylars. The overlays have been prepared with the exception of the stick-ups. Therefore, the attached SCS-SOILS-37A form furnishes a record of the "conventional and special symbols legend" that will be shown as the legend on the published survey.

SCS-SOILS-37A
3-75

# CONVENTIONAL AND SPECIAL SYMBOLS LEGEND

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Soil Survey Area: Decatur County
State: Indiana

Rev. 9/14/79
Date: _____

## CULTURAL FEATURES

BOUNDARIES

County or parish

Minor civil division

Field sheet matchline & neatline

AD HOC BOUNDARY (label)

Small airport, airfield, park, oilfield, cemetery, or flood pool

STATE COORDINATE TICK
1 890 000 FEET

LAND DIVISION CORNERS
(sections and land grants)

ROADS

Divided (median shown if scale permits)

County, farm or ranch

ROAD EMBLEMS & DESIGNATIONS

Interstate 66

Federal 287

State 52

RAILROAD

DAMS

Large (to scale).

Medium or small

PITS < 2 acres in size.

Gravel pit

Mine or quarry

## CULTURAL FEATURES (cont.)

MISCELLANEOUS CULTURAL FEATURES

Farmstead, house (omit in urban areas)

Church

School

Wells, oil or gas

## WATER FEATURES

DRAINAGE

Perennial, double line

Perennial, single line

Intermittent

Drainage end

LAKES, PONDS AND RESERVOIRS

Perennial water

MISCELLANEOUS WATER FEATURES

Wet spot

## SPECIAL SYMBOLS FOR SOIL SURVEY

SOIL DELINEATIONS AND SOIL SYMBOLS

ESCARPMENTS CeA FoB2

Bedrock (points down slope)

Other than bedrock (points down slope)

SHORT STEEP SLOPE

GULLY

DEPRESSION OR SINK

MISCELLANEOUS

Rock outcrop (includes sandstone and shale)

Severely eroded spot

RECOMMENDED AD HOC SOIL SYMBOLS

Bedrock at 40 to 60 inches from surface in Fincastle, Russell, and Xenia map units; 10 acres or less. ①

Bedrock at 20 to 40 inches in Lobdell or Orrville map units; 2 to 5 acres in size. ⫩

Sanitary Landfill<5acres. 4

Approved: August 1, 1980

Maurice Stout

Maurice Stout, Jr.
Head, Soils Staff
Midwest TSC

Decatur County, Indiana

## CONVERSION LEGEND RELATING FIELD MAP SYMBOLS TO PUBLICATION SYMBOLS

| Field Symbol | Publication Symbol | Field Symbol | Publication Symbol | Field Symbol | Publication Symbol |
|---|---|---|---|---|---|
| AvA | AvA | Gg | Ch | Ms | Ms |
| AvB | AvB | GrB2 | GrC2 | MtA | MtA |
| Br | Cy | GrC2 | GrC2 | MtB | MtB2 |
| CaA | OcA | GrC3 | GrC2 | MtB2 | MtB2 |
| CaB | OcB | GrD2 | GfD | MtD | MtB2 |
| CaB2 | OcB | GrD3 | GfD | OcA | OcA |
| CbA | WmB | GrE | GfD | OcB2 | OcB |
| CbB2 | WmB | HeF | HeG | PaB2 | CkB2 |
| CcB2 | CkB2 | HeG | HeG | PeA | RsB2 |
| CcC2 | CkC2 | HkD2 | HkD2 | PeB2 | RsB2 |
| CcC3 | CkC3 | HkD3 | H1D3 | Pt | Ud |
| CcD2 | CkC2 | HkE | HkE2 | Rm | Ta |
| CcD3 | CkC3 | HkE2 | HkE2 | RoF | RoG |
| Cg | Cg | HkF | HkF | RoG | RoG |
| Ch | Ch | HkF2 | HkF | RsA | RsB2 |
| Cm | Cm | KeA | MmB2 | RsB2 | RsB2 |
| CrA | CrA | KeB2 | MmB2 | RuA | RuB |
| CrB | CrA | MeA | MeA | RuB2 | RuB |
| DuA | AvB | MeB | MeB2 | Sh | Or |
| EdE | CnG | MeB2 | MeB2 | So | So |
| Ee | Lb | MeC2 | MmC2 | SrA | Sr |
| EkB2 | MeB2 | MeC3 | MoC3 | St | St |
| FaG | CnG | MmA | WmB | We | My |
| FcA | FcA | MmB2 | MmB2 | XeA | XnA |
| FcB | FcB | MmC2 | MmC2 | XnA | XnA |
| FoA | FoA | MmD2 | MmD2 | XnB2 | XnB |
| FoB2 | FoB | MoB3 | MmB2 | | |
| FoC2 | FoB | MoC3 | MoC3 | | |
| FxC3 | FoB | MoD3 | MoD3 | | |
| Ge | Cg | Mr | Mr | | |

Decatur County, Indiana

## CLASSIFICATION OF PEDONS SAMPLED FOR LABORATORY ANALYSIS

### Pedons Characterized at Purdue Lab

| Sampled As | Sample Numbers | Publication Map Symbol | Approved Classification |
|---|---|---|---|
| Avonburg* | S77IN31-3-(1-7) | AvA | Avonburg taxadjunct |
| Brookston | S76IN31-4-(1-6) | Cy | Cyclone taxadjunct |
| Celina* | S76IN31-28-(1-5) | WmB | Williamstown |
| Chagrin | S77IN31-10-(1-3) | Cg | Chagrin taxadjunct |
| Cincinnati* | S78IN31-13-(1-7) | CkC2 | Cincinnati taxadjunct |
| Clermont* | S76IN31-21-(1-9) | Cm | Clermont taxadjunct |
| Crosby* | S76IN31-32-(1-7) | CrA | Crosby taxadjunct |
| Farmington | S78IN31-2-(1-3) | CnG | Carydon taxadjunct |
| Fincastle* | S76IN31-30-(1-6) | FcA | Fincastle taxadjunct |
| Hickory* | S77IN31-9-(1-6) | HkE2 | Hickory |
| Kendallville* | S77IN31-4-(1-6) | MmB2 | Miami taxadjunct |
| Lobdell | S78IN31-25-(1-5) | Lb | Lobdell taxadjunct |
| Martinsville* | S77IN31-6-(1-6) | MeB2 | Martinsville |
| Miami* | S78IN31-1-(1-6) | MmB2 | Miami |
| Milford* | S78IN31-12-(1-8) | Mr | Milford |
| Millsdale* | S77IN31-5-(1-6) | Ms | Millsdale |
| Milton* | S76IN31-34-(1-5) | MtB2 | Milton taxadjunct |
| Ockley* | S76IN31-19-(1-6) | OcA | Ockley |
| Rossmoyne* | S78IN31-8-(1-8) | RsB2 | Rossmoyne taxadjunct |
| Treaty* | S76IN31-20-(1-6) | Cy | Ragsdale taxadjunct |

*SCS-SOILS-8 forms have been prepared for these soils.

### Pedons Sampled for Engineering Test Data

| Sampled As | Sample Numbers | Publication Map Symbol | Approved Classification |
|---|---|---|---|
| Avonburg | S77IN031-003 | AvA | Avonburg taxadjunct |
| Clermont | S76IN031-013 | Cm | Clermont |
| Treaty | S76IN031-020 | Cy | Ragsdale taxadjunct |

Decatur County, Indiana

## Additional Lab Data to Characterize Soil Map Units, Characterized at Purdue Lab and Submitted by Indiana State Office

| Sampled As | Sample Numbers | Publication Map Symbol | Approved Classification |
|---|---|---|---|
| Avonburg | S78IN31-27-(1- ) | AvA | Avonburg |
| Avonburg | S76IN31-13-(1-8) | AvA | Clermont (inclusion) |
| Bartle | S78IN31-4-(1-5) | AvA | Avonburg (inclusion) |
| Brookston | S76IN31-5-(1-7) | Cy | Treaty |
| Camden | S78IN31-7-(1-6) | Lb | Lobdell |
| Brookston | S76IN31-8-(1-6) | Mr | Ragsdale |
| Camden | S78IN31-10-(1-6) | Lb | Lobdell |
| Fincastle | S76IN31-6-(1-8) | FcA | Crosby taxadjunct |
| Dubois | S78IN31-6-(1-6) | AvA | Avonburg (inclusion) |
| Fox | S76IN31-9-(1-4) | FoA | Fox |
| Elkinsville | S78IN31-15-(1-5) | AvA | Avonburg (inclusion) |
| Fox | S76IN31-24-(1-5) | FoB | Eldean taxadjunct |
| Martinsville | S76IN31-2-(1-5) | MeB2 | Fox |
| Martinsville | S76IN31-25-(1-7) | MeA | Ockley |
| Miami | S76IN31-11-(1-4) | MeB2 | Strawn |
| Ockley | S76IN31-1-(1-5) | OcB | Ockley |
| Orrville | S78IN31-3-(1-7) | Or | Orrville |
| Rodman | S76IN31-14-(1-3) | RoG | Rodman |
| Russell | S76IN31-16-(1-7) | RuB | Russell |
| Xenia | S76IN31-10-(1-7) | XnB | Xenia, gravelly substratum |
| Camden | S76IN31-29-(1-7) | OcA | Camden |
| Cincinnati | S76IN31-23-(1-7) | CkB2 | Cincinnati taxadjunct |
| Eel | S76IN31-26-(1-7) | Lb | Eel Variant (Lobdell) |
| Milton Variant | S76IN31-31-(1-6) | MtA | Milton (taxadjunct, 34 percent in argillic) |
| Parke Variant | S78IN31-5-(1-6) | CcB2 | Cincinnati (inclusion) |
| Ross Variant | S76IN31-17-(1-3) | Cg | Ross Variant (coarse-loamy) |
| Pekin | S78IN31-11-(1-7) | Cg | Chagrin (inclusion) |
| Grayford | S76IN31-22-(1-6) | GrC2 | Ryker |
| Grayford | S78IN31-9-(1-5) | GrC2 | Ryker taxadjunct |
| Sloan | S76IN31-15-(1-6) | So | Sloan |
| Starks | S78IN31-18-(1-6) | Sr | Starks taxadjunct |
| Westland | S76IN31-12-(1-7) | My | Montgomery |
| Clermont | S79IN31-1-(1-11) | Cm | Clermont taxadjunct |

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

by
Robert I. Turner

AVONBURG SERIES

Avonburg soils are taxadjuncts to the Avonburg series because they contain less clay in the argillic horizon, and have lower base saturation in the lower part of the solum than defined for the Avonburg series. Actually, these soils would classify as Fragiaquults based on the base saturation data. In addition, the lower material in which the solum is formed contains less sand than is typical for the concept of the Avonburg series.

CHAGRIN SERIES

Chagrin soils are taxadjuncts to the Chagrin series because they average slightly less clay in the control section than defined for the Chagrin series. These soils apparently are within the range of the Tioga series, but we have not named them Tioga because they are considered slightly less acid and slightly higher in base saturation than typical for the Tioga series. In addition, they have fewer coarse fragments in the control section and underlying material than is considered normal for the Tioga series, are slightly higher in clay content than the central concept for the Tioga series, and are fairly well separated geographically from the area where most of the Tioga series is described. While none of these items is clearly outside the range allowed in the present definition of the Tioga series, we have accepted the request that Tioga not be used for this mapping unit at the present time.

CHAGRIN VARIANT SERIES

These soils are similar to the Chagrin series except that they are underlaid by limestone bedrock between depths of 20 to 40 inches.

CINCINNATI SERIES

Cincinnati soils are taxadjuncts to Cincinnati series as they contain more clay in the Bx3 horizon and the B3 horizon than allowed in the defined range for the Cincinnati series.

CLERMONT SERIES

Clermont soils are taxadjuncts to the Clermont series as they have considerably less clay in the argillic horizon than defined for the Clermont series and are marginal to coarse-silty in the upper 20 inches of the argillic horizon.

CORYDON SERIES

Corydon soils are taxadjuncts to the Corydon series as they lack a mollic epipedon and contain less clay than defined for the Corydon series. Because the steep slope and the shallow depth to bedrock are the overriding management characteristics for the few hundred acres of this soil, we did not call it a variant.

Decatur County, Indiana

CROSBY SERIES

Crosby soils are taxadjuncts to the Crosby series because they have less clay in the argillic horizon than defined for the Crosby series. They actually would classify in a fine-loamy textural family. These soils typically have one subhorizon that contains slightly more than 35 percent clay and are less permeable in the lower part of the series control section.

FINCASTLE SERIES

Fincastle soils are taxadjuncts to the Fincastle series as they have more clay in the argillic horizon than defined for the Fincastle series. In addition, they are less acid in the B2t horizon than defined for the series. These soils would actually classify in the fine family in Soil Taxonomy.

GRAYFORD SERIES

Grayford soils are defined as fine-loamy Ultic Hapludalfs. These soils are strongly or very strongly acid in the major part of the B2 horizon, although by rules of Soil Taxonomy some pedons are borderline to Typic at 50 inches below the top of the argillic horizon. The textural family is borderline to fine-silty in those pedons where the loess thickness is near the maximum and the argillic horizon starts in the B1 horizon.

LOBDELL SERIES

Lobdell soils are taxadjuncts to the Lobdell series because they average slightly less clay in the control section than defined for the Lobdell series. These soils apparently are within the range of the Middlebury series, but we have not named them Middlebury because they are commonly slightly less acid and slightly higher in base saturation than typical for the Middlebury series. In addition, they have fewer coarse fragments in the control section and underlying material than is considered typical for the Middlebury series, are slightly higher in clay content than the central concept for the Middlebury series, and are fairly well separated geographically from the area where most of the Middlebury series is described. While none of these items is clearly outside the range allowed in the present definition of the Middlebury series, we have accepted the request that Middlebury not be used for this mapping unit at the present time.

MARTINSVILLE SERIES

Martinsville soils are slightly less acid and have slightly thicker profiles than typical for the series, but we did not call them taxadjuncts. Small acreage of Martinsville on C slopes was included with Miami clay loam on similar slopes.

MIAMI SERIES

Miami soils are formed in till which appears marginal to sandy loam textures, but they have less sand in the solum than is typical for the Kidder series. Thus, Miami seemed more suitable. The severely eroded units are thin enough to be marginal to the solum thickness of the Strawn series. A small acreage of soils previously named as Kendallville do not fit the concept of Kendallville and were included with the appropriate slope groups of Miami.

MILFORD SERIES

These soils were judged to have silty clay textures as the dominant surface texture and the name was changed to conform to that observation.

Decatur County, Indiana

MILTON SERIES
These soils have more clay in the lower part of the solum than defined for the Milton series and by a strict application of Soil Taxonomy would classify in the contrasting family of fine-loamy over clayey. However, we did not call them taxadjuncts on that account as the fine-loamy portion was marginal to the fine family particle-size classification.

OCKLEY SERIES
These soils were previously identified as variants but upon further examination were judged to be within the range of the Ockley series. They are in the thinner part of the range in depth to sand and gravel for the Ockley series.

ORRIVILLE SERIES
The clay content in the control section is in the minimal range for the Orville series, but we did not call then taxadjuncts on that account.

ROSSMOYNE SERIES
Rossmoyne soils are taxadjuncts to Rossmoyne series, as they have lower base saturation in horizons below the fragipan than defined for the series and for the order of Alfisols. In addition, the solum appears to have slightly less clay and slightly less sand than typical for the Rossmoyne series.

RUSSELL SERIES
Because of the rather small acreage and the lack of significant differences in terms of use and management, the A slope Russell was combined with the B slope.

RYKER SERIES
These soils are taxadjuncts to the Ryker series as the clay content drops off in the lower part of the argillic horizon faster than defined for the Ryker series and the base saturation in the lower part of the argillic horizon is lower than defined for the Ryker series and for the Alfisol order.

SLOAN SERIES
These soils have slightly less clay in the control section than defined for the series, but we did not call then taxadjuncts on that account. In addition, they are slightly deeper to free carbonates than is typical for the Sloan series.

STARKS SERIES
Starks soils are slightly less acid than defined for the series, but we did not call then taxadjuncts on that account. Laboratory data available for the representative site in this county indicate it is moderately alkaline throughout and contains free carbonates, but this data is considered questionable and not in accord with the samples which were examined at the correlation conference.

WILLIAMSTOWN SERIES
Because of limited differences between the A and B slopes as identified on the soil maps, the decision was made to combine the A and B slopes of the Williamstown series into one map unit.

## 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 |
|---|---|
| *Avonburg | Fine-silty, mixed, mesic Aeric Fragiaqualfs |
| *Chagrin | Fine-loamy, mixed, mesic Dystric Fluventic Eutrochrepts |
| *Chagrin Variant | Fine-loamy, mixed, mesic Dystric Fluventic Eutrochrepts |
| *Cincinnati | Fine-silty, mixed, mesic Typic Fragiudalfs |
| *Clermont | Fine-silty, mixed, mesic Typic Ochraqualfs |
| *Corydon | Clayey, mixed, mesic Lithic Argiudolls |
| *Crosby | Fine, mixed, mesic Aeric Ochraqualfs |
| Cyclone | Fine-silty, mixed, mesic Typic Argiaquolls |
| *Fincastle | Fine-silty, mixed, mesic Aeric Ochraqualfs |
| Fox | Fine-loamy over sandy or sandy-skeletal, mixed, mesic Typic Hapludalfs |
| Grayford | Fine-loamy, mixed, mesic Ultic Hapludalfs |
| Hennepin | Fine-loamy, mixed, mesic Typic Eutrochrepts |
| Hickory | Fine-loamy, mixed, mesic Typic Hapludalfs |
| *Lobdell | Fine-loamy, mixed, mesic Fluvaquentic Eutrochrepts |
| Martinsville | Fine-loamy, mixed, mesic Typic Hapludalfs |
| Miami | Fine-loamy, mixed, mesic Typic Hapludalfs |
| Milford | Fine, mixed, mesic Typic Haplaquolls |
| Millsdale | Fine, mixed, mesic Typic Argiaquolls |
| Milton | Fine, mixed, mesic Typic Hapludalfs |
| Montgomery | Fine, mixed, mesic Typic Haplaquolls |
| Ockley | Fine-loamy, mixed, mesic Typic Hapludalfs |
| Orrville | Fine-loamy, mixed, nonacid, mesic Aeric Fluvaquents |
| Rodman | Sandy-skeletal, mixed, mesic Typic Hapludolls |
| *Rossmoyne | Fine-silty, mixed, mesic Aquic Fragiudalfs |
| Russell | Fine-silty, mixed, mesic Typic Hapludalfs |
| *Ryker | Fine-silty, mixed, mesic Typic Paleudalfs |
| Sloan | Fine-loamy, mixed, mesic Fluvaquentic Haplaquolls |
| Starks | Fine-silty, mixed, mesic Aeric Ochraqualfs |
| Stonelick | Coarse-loamy, mixed (calcareous), mesic Typic Udifluvents |

CLASSIFICATION OF THE SOILS--Continued

| Soil name | Family or higher taxonomic class |
|---|---|
| Udorthents. | Loamy, mixed, nonacid, mesic Udorthents |
| Williamstown--- | Fine-loamy, mixed, mesic Aquic Hapludalfs |
| Xenia-------- | Fine-silty, mixed, mesic Aquic Hapludalfs |