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CLASSIFICATION AND CORRELATION
OF
THE SOILS OF
DUBOIS COUNTY
INDIANA

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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

Dubois County, Indiana

The final correlation was conducted at the Midwest Technical Service Center in Lincoln, Nebraska. Participants in the correlation were: Robert C. Wingard, Party Leader; Frank W. Sanders; and Louie L. Buller. The soils handbook, laboratory data, field sheets, field notes, interpretative tables and correlation samples were the documentation and supporting evidence reviewed during the conference.

Map symbols consist of two or three letters and the final number; as an example, Ba, DuB and NgC2. The first letter is a capital and it is the first letter of the soil name or miscellaneous area. The second letter is lower case and it is used to separate mapping units that begin with the same first letter. The third letter is a capital and it indicates the class of slope. Symbols without a slope letter are used on mapping units which do not have slope as part of the name. A final number 2 or 3 indicates the degree of erosion.

SOIL CORRELATION OF
DUBOIS COUNTY, INDIANA

Field symbols	Field mapping unit name	Publi- cation symbol	Approved mapping unit name
AfB, AfA, AfB2	Alford silt loam, 2 to 6 percent slopes	AfB	Alford silt loam, 2 to 6 percent slopes
AfC2, AfC3	Alford silt loam, 6 to 12 percent slopes, eroded	AfC2	Alford silt loam, 6 to 12 percent slopes, eroded
AfE2, AfD2, AfD3, AfE3, AfF	Alford silt loam, 15 to 25 percent slopes, eroded	AfE2	Alford silt loam, 15 to 25 percent slopes, eroded
BaA	Bartle silt loam, 0 to 2 percent slopes	Ba	Bartle silt loam
Bo	Bonnie silt loam	Bo	Bonnie silt loam
Bu	Burnside silt loam	Bu	Burnside silt loam
Ge	Genesee loam	Ch	Chagrin silt loam
Cu	Cuba silt loam	Cu	Cuba silt loam
DuA	Dubois silt loam, 0 to 2 percent slopes	DuA	Dubois silt loam, 0 to 2 percent slopes
DuB, DuB2	Dubois silt loam, 2 to 6 percent slopes	DuB	Dubois silt loam, 2 to 6 percent slopes
G1D2, WeD2	Gilpin silt loam, 12 to 18 percent slopes, eroded	G1D2	Gilpin silt loam, 12 to 18 percent slopes, eroded
G1D3, WeD3	Gilpin silt loam, 12 to 18 percent slopes, severely eroded	G1D3	Gilpin silt loam, 12 to 18 percent slopes, severely eroded
G1E2	Gilpin silt loam, 18 to 25 percent slopes, eroded	G1E	Gilpin silt loam, 18 to 25 percent slopes
G1E3	Gilpin silt loam, 18 to 25 percent slopes, severely eroded	G1E3	Gilpin silt loam, 18 to 25 percent slopes, severely eroded

DUBOIS COUNTY, INDIANA --Continued

Field symbols	Field mapping unit name	Publi- cation symbol	Approved mapping unit name
GoF, EgF	Gilpin-Berks complex, 20 to 50 percent slopes	GoF	Gilpin-Berks complex, 20 to 50 percent slopes
GuD, Gu	Gilpin-Orthents complex, 12 to 25 percent slopes	GuD	Gilpin-Orthents complex, 12 to 25 percent slopes
JoA	Johnsburg silt loam, 0 to 2 percent slopes	JoA	Johnsburg silt loam, 0 to 2 percent slopes
MgA, MaA, MaB2, MaC2, MaD2, McC3, McD3	McGary silt loam, 0 to 2 percent slopes	MgA	McGary silt loam, 0 to 2 percent slopes
Mo	Montgomery silty clay loam	Mo	Montgomery silty clay loam
NeD3, NeD2	Negley loam, 12 to 18 percent slopes, severely eroded	NeD3	Negley loam, 12 to 18 percent slopes, severely eroded
NeF, NeE2, NeE3	Negley loam, 18 to 50 percent slopes	NeF	Negley loam, 18 to 50 percent slopes
NgC2, NeC2, NeC3, NgC3	Negley silt loam, 6 to 12 percent slopes, eroded	NgC2	Negley silt loam, 6 to 12 percent slopes, eroded
NgD2, NgD3	Negley silt loam, 12 to 18 percent slopes, eroded	NgD2	Negley silt loam, 12 to 18 percent slopes, eroded
No	Nolin silt loam	No	Nolin silt loam
OrD	Orthents, 6 to 25 percent slopes	OrD	Orthents, 6 to 25 percent slopes
OtA	Otwell silt loam, 0 to 2 percent slopes	OtA	Otwell silt loam, 0 to 2 percent slopes
OtB, OtB2, HoB2	Otwell silt loam, 2 to 6 percent slopes	OtB	Otwell silt loam, 2 to 6 percent slopes

DUBOIS COUNTY, INDIANA --Continued

Field symbols	Field mapping unit name	Publi- cation symbol	Approved mapping unit name
OtC2, OtC3, HoC2	Otwell silt loam, 6 to 12 percent slopes, eroded	OtC2	Otwell silt loam, 6 to 12 percent slopes, eroded
PaB, PaB2	Parke silt loam, 2 to 6 percent slopes	PaB	Parke silt loam, 2 to 6 percent slopes
PaC2, PaC3	Parke silt loam, 6 to 12 percent slopes, eroded	PaC2	Parke silt loam, 6 to 12 percent slopes, eroded
PaD3, OtD2, OtD3, PaD2	Parke silt loam, 12 to 18 percent slopes, severely eroded	PaD3	Parke silt loam, 12 to 18 percent slopes, severely eroded
PeB, PeB2	Pekin silt loam, 2 to 6 percent slopes	PeB	Pekin silt loam, 2 to 6 percent slopes
PeC2	Pekin silt loam, 6 to 12 percent slopes, eroded	PeC2	Pekin silt loam, 6 to 12 percent slopes, eroded
Pg	Peoga silt loam	Pg	Peoga silt loam
Ph	Petrolia silty clay loam	Ph	Petrolia silty clay loam
PkA	Pike silt loam, 0 to 2 percent slopes	PkA	Pike silt loam, 0 to 2 percent slopes
PkB, PkB2	Pike silt loam, 2 to 6 percent slopes	PkB	Pike silt loam, 2 to 6 percent slopes
PrB, PrB2	Princeton fine sandy loam, 2 to 6 percent slopes	PrB	Princeton fine sandy loam, 2 to 6 percent slopes
PrC, PrD2, BLD, PrC2	Princeton fine sandy loam, 6 to 12 percent slopes	PrC	Princeton fine sandy loam, 6 to 12 percent slopes
PrF, BLE, BLF	Princeton loamy fine sand, 20 to 60 percent slopes	PrF	Princeton fine sandy loam, 20 to 60 percent slopes
Sf	Steff silt loam	Sf	Steff silt loam

DUBOIS COUNTY, INDIANA --Continued

Field symbols	Field mapping unit name	Publi- cation symbol	Approved mapping unit name
St	Stendal silt loam	St	Stendal silt loam
T1A	Tilsit silt loam, 0 to 2 percent slopes	T1A	Tilsit silt loam, 0 to 2 percent slopes
T1B, T1B2	Tilsit silt loam, 2 to 6 percent slopes	T1B	Tilsit silt loam, 2 to 6 percent slopes
WeC2	Wellston silt loam, 6 to 12 percent slopes, eroded	WeC2	Wellston silt loam, 6 to 12 percent slopes, eroded
WeC3	Wellston silt loam, 6 to 12 percent slopes, severely eroded	WeC3	Wellston silt loam, 6 to 12 percent slopes, severely eroded
ZnC2	Zanesville silt loam, 6 to 12 percent slopes, eroded	ZnC2	Zanesville silt loam, 6 to 12 percent slopes, eroded
ZnC3	Zanesville silt loam, 6 to 12 percent slopes, severely eroded	ZnC3	Zanesville silt loam, 6 to 12 percent slopes, severely eroded

Dubois County, Indiana

Series established by this correlation:

None

Series dropped or made inactive:

None

Join Statement:

Dubois County is joined by the published soil surveys of Daviess, Spencer, Perry and Crawford Counties and the completed soil survey of Warrick County. The field sheets and the general soil maps join. There are some acceptable differences on the field sheets because the map units were designed in a slightly different manner and some of the apparent discrepancies are handled as inclusions in the mapping unit in Dubois County. All of these items are covered in a detailed join statement prepared in Indiana.

The field mapping is completed, the typical pedons are located in representative areas and interpretations have been coordinated with adjoining survey areas.

Verification of Cooperator Names :

On the front cover the cooperator citation will read:

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

In the box on the inside of the front cover the credit line 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. Financial assistance was made available by the Dubois County Board of County Commissioners."

Disposition of Field Sheets :

The field sheets will be retained in Indiana for use in map compilation and map finishing. Five negatives or copies have been made of all field sheets.

Prior Soil Survey Publications :

The following statement will be part of the introduction in the soil survey: "The first soil survey of Dubois County was published in 1937 (ref. citation). This survey updates the first survey and provides additional information and larger maps that show the soils in greater detail."

Dubois County, Indiana

Instructions for Map Compilation:

The conventional symbols used in this survey are those listed in the following Legend of Conventional Symbols. The field mapping was all done using the symbols as they appear on SCS-Soils-37A, dated 3/75.

1. The minimum size delineation to be compiled is 3 acres.
2. Those symbols appearing on field sheets which are not listed on the following conventional and special symbols legend will not be compiled.
3. The severely eroded spot symbol will not be compiled in moderately eroded or severely eroded mapping units.

CONVENTIONAL AND SPECIAL SYMBOLS LEGEND

Soil Survey Area: Dubois County
State: Indiana

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 parish		Farmstead, house (omit in urban areas)	•	ESCARPMENTS	CeA FoB2
Minor civil division		Church	⊥	Bedrock (points down slope)	
Reservation (national forest or park, state forest or park, and large airport)		School	⊥	SHORT STEEP SLOPE	
Limit of soil survey (label)		Wells, oil or gas	⊥	GULLY	
Field sheet matchline & nestline					
AD HOC BOUNDARY (label)					
Small airport, airfield, park, oilfield, cemetery, or flood pool				MISCELLANEOUS	
STATE COORDINATE TICK 1 890 000 FEET					
LAND DIVISION CORNERS (sections and land grants)		WATER FEATURES			
ROADS		DRAINAGE			
Divided (median shown if scale permits)		Perennial, double line		Rock outcrop (includes sandstone and shale)	∇
County, farm or ranch		Perennial, single line		"Sandy spot"	⊥
Trail		Intermittent		Severely eroded spot	⊥
ROAD EMBLEMS & DESIGNATIONS		Drainage end			
Interstate				RECOMMENDED AD HOC SOIL SYMBOLS	
Federal		LAKES, PONDS AND RESERVOIRS		Sanitary landfill - up to 10 acres in size	⊥
State		Perennial		Muck spot - up to 3 acres in size	⊥
		Intermittent			
		MISCELLANEOUS WATER FEATURES			
RAILROAD		Marsh or swamp			
		Spring			
LEVEES		Wet spot			
Without road					
DAMS					
Large (to scale)					
Medium or small					
FITS					
Mine or quarry					

Approved: June 16, 1978

Maurice Stout, Jr.
Maurice Stout, Jr.
Head, Soils Staff
Midwest TSC

CONVERSION LEGEND FOR
DUBOIS COUNTY, INDIANA

Field symbol	Publi- cation symbol						
AfA	AfB	NeC2	NgC2	Sf	Sf		
AfB	AfB	NeC3	NgC2	St	St		
AfB2	AfB	NeD2	NeD3	T1A	T1A		
AfC2	AfC2	NeD3	NeD3	T1B	T1B		
AfC3	AfC2	NeE2	NeF	T1B2	T1B		
AfD2	AfE2	NeE3	NeF				
AfD3	AfE2	NeF	NeF	WeC2	WeC2		
AfE2	AfE2	NgC2	NgC2	WeC3	WeC3		
AfE3	AfE2	NgC3	NgC2	WeD2	G1D2		
AfF	AfE2	NgD2	NgD2	WeD3	G1D3		
BaA	Ba	NgD3	NgD2	ZnC2	ZnC2		
BgF	GoF	No	No	ZnC3	ZnC3		
B1D	PrC	OrD	OrD				
B1E	PrF	OtA	OtA				
B1F	PrF	OtB	OtB				
Bo	Bo	OtB2	OtB				
Bu	Bu	OtC2	OtC2				
Cu	Cu	OtC3	OtC2				
DuA	DuA	OtD2	PaD3				
DuB	DuB	OtD3	PaD3				
DuB2	DuB	PaB	PaB				
Ge	Ch	PaB2	PaB				
G1D2	G1D2	PaC2	PaC2				
G1D3	G1D3	PaC3	PaC2				
G1E2	G1E	PaD2	PaD3				
G1E3	G1E3	PaD3	PaD3				
GoF	GoF	PeB	PeB				
Gu	GuD	PeB2	PeB				
GuD	GuD	PeC2	PeC2				
HoB2	OtB	Pg	Pg				
HoC2	OtC2	Ph	Ph				
JoA	JoA	PkA	PkA				
MaA	MgA	PkB	PkB				
MaB2	MgA	PkB2	PkB				
MaC2	MgA	PrB	PrB				
MaD2	MgA	PrB2	PrB				
McC3	MgA	PrC	PrC				
McD3	MgA	PrC2	PrC				
MgA	MgA	PrD2	PrC				
Mo	Mo	PrF	PrF				

Dubois County, Indiana

CLASSIFICATION OF PEDONS SAMPLED FOR LABORATORY ANALYSIS

Purdue University Soil Characterization Laboratory

<u>Sampled As</u>	<u>Sample Number</u>	<u>*Approved Name</u>
Alford	S76IN37-2-(1-6)	Alford taxadjunct
Burnside	S76IN37-5-(1-4)	Burnside
Dubois	S75IN37-1-(1-9)	Dubois
Dubois	S75IN37-3-(1-11)	Dubois
Genesee	S77IN37-1-(1-4)	Chagrin taxadjunct
Gilpin	S76IN37-10-(1-4)	Gilpin
Negley	S76IN37-6-(1-6)	Negley taxadjunct
Otwell	S76IN37-7-(1-5)	Otwell taxadjunct
Peoga	S75IN37-2-(1-6)	Peoga taxadjunct
Princeton	S76IN37-11-(1-7)	Princeton taxadjunct

National Soil Survey Laboratory

Johnsburg	S73IN19-2-(1-11)	Johnsburg
Zanesville	S73IN19-1-(1-9)	Zanesville

* The approved name refers only to pedon sampled and the data from the pedon. It may or may not coincide with the naming of the soils in this correlation.

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

by
Louie L. Buller

ALFORD SERIES

This soil is a taxadjunct to the Alford Series because the base saturation is less than 60 percent at a depth of 1.25 meter below the top of the argillic horizon. This soil classifies as an Ultic Hapludalfs instead of a Typic Hapludalfs.

CHAGRIN SERIES

The Chagrin series is classified as a fine-loamy, mixed, mesic Dystric Fluventic Eutrochrepts. The average clay content of the control section for the typical pedon in this county is about 18 percent and in many instances, less. The amount of fine sand and coarser sand is about 15 percent or less. In this county, the Chagrin soils are at or near the allowed lower family class limits for clay and sand content. This soil is not a taxadjunct and those areas with less clay and sand than typical for the series are handled as similar inclusions in the mapping unit.

GILPIN SERIES

Laboratory data was available on the typical pedon. The data did not show coarse fragments and apparently the soft sandstone fragments were ground up and became part of the particle size analysis. As a result, the lab data shows the typical pedon to be coarse-loamy without an argillic horizon. In view of this, the lab data was disregarded and discarded.

The Gilpin silt loam, 12 to 18 percent slopes, eroded, mapping unit includes both noneroded and moderately eroded delineations. No attempt was made in mapping to separate them. Since most of the delineations are moderately eroded, the mapping unit is best described as an eroded unit and the noneroded parts handled as inclusions.

The Gilpin silt loam, 18 to 25 percent slopes, mapping unit is a situation similar to the 12 to 18 percent unit, but the majority of the delineations are not eroded. In view of this, the map unit was not called eroded but the eroded areas are handled as inclusions.

MONTGOMERY SERIES

The Montgomery soils are of small extent, only 89 acres. This is the only mollisol in the county, the delineations are 30 or more acres in size and there is no good similar soil with which the Montgomery soils could be combined.

NEGLEY SERIES

Negley soils are classified as fine-loamy, mixed, mesic, Typic Paleudalfs. The laboratory data shows the clay content in the lower part of the profile decreases slightly more than allowed by the Paleudalf classification. The dropoff in clay is not significant to use in management and it is within the range of acceptable laboratory error. In view of this, this soil is not a taxadjunct.

ORTHENTS

This is an area of strip mined spoil in the southwest part of the county. The material is quite variable, the pH ranges from neutral to strongly acid and the family textural classification ranges from fine-loamy to coarse-loamy. Coarse fragments range up to 35 percent in some areas.

PRINCETON SERIES

The Princeton mapping units were all proposed for correlation with a loamy fine sand surface. Loamy fine sand surface textures are not recognized in the Princeton series and consequently the mapping units were proposed as taxadjuncts. The surface texture in the correlation sample could have gone either fine sandy loam or loamy fine sand. In view of this, a new typical pedon, one with laboratory data, was chosen. This pedon has a fine sandy loam surface. The surface texture on all of the mapping units will be changed to fine sandy loam and a significant inclusion of loamy fine sand surface will be written into the mapping unit descriptions.

WELLSTON SERIES

A new typical pedon was selected for the series. The new pedon better reflects the eroded condition which is typical in this county.

There was no attempt made during field mapping to separate moderately eroded areas from noneroded areas. Since there are more areas that have been eroded than noneroded, the mapping unit will be called eroded and the noneroded areas will be handled as inclusions.

ZANESVILLE SERIES

The two Zanesville mapping units are both on 6 to 12 percent slopes and one of them is called eroded and the other one severely eroded. The typical pedon was described in a relatively uneroded area within the eroded mapping unit. This typical pedon was chosen because it is located on the Purdue University farm, it was sampled for complete characterization studies in 1973, and the data is used extensively.

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
*Alford-----	Fine-silty, mixed, mesic Typic HapludalFs
Bartle-----	Fine-silty, mixed, mesic Aeric FragiagualFs
Berks-----	Loamy-skeletal, mixed, mesic Typic Dystrochrepts
Bonnie-----	Fine-silty, mixed, acid, mesic Typic Fluvaquents
Burnside-----	Loamy-skeletal, mixed, acid, mesic Typic Udifluvents
Chagrin-----	Fine-loamy, mixed, mesic Dystric Fluventic Eutrochrepts
Cuba-----	Fine-silty, mixed, mesic Fluventic Dystrochrepts
Dubois-----	Fine-silty, mixed, mesic Aeric FragiagualFs
Gilpin-----	Fine-loamy, mixed, mesic Typic Hapludults
Johnsburg----	Fine-silty, mixed, mesic Aquic Fragiudults
McGary-----	Fine, mixed, mesic Aeric OchraqualFs
Montgomery---	Fine, mixed, mesic Typic Haplaquolls
Negley-----	Fine-loamy, mixed, mesic Typic PaleudalFs
Nolin-----	Fine-silty, mixed, mesic Dystric Fluventic Eutrochrepts
Orthents-----	Loamy, mixed, mesic Typic Udorthents
Otwell-----	Fine-silty, mixed, mesic Typic FragiudalFs
Parke-----	Fine-silty, mixed, mesic Ultic HapludalFs
Pekin-----	Fine-silty, mixed, mesic Aquic FragiudalFs
Peoga-----	Fine-silty, mixed, mesic Typic OchraqualFs
Petrolia-----	Fine-silty, mixed, nonacid, mesic Typic Fluvaquents
Pike-----	Fine-silty, mixed, mesic Ultic HapludalFs
Princeton----	Fine-loamy, mixed, mesic Typic HapludalFs
Steff-----	Fine-silty, mixed, mesic Fluvaquentic Dystrochrepts
Stendal-----	Fine-silty, mixed, acid, mesic Aeric Fluvaquents
Tilsit-----	Fine-silty, mixed, mesic Typic Fragiudults
Wellston-----	Fine-silty, mixed, mesic Ultic HapludalFs
Zanesville---	Fine-silty, mixed, mesic Typic FragiudalFs