

Notes in
this copy

**CLASSIFICATION AND CORRELATION
OF
THE SOILS OF**

***HAMILTON COUNTY
ILLINOIS***

AUGUST 1982



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



United States
Department of
Agriculture

Soil
Conservation
Service

MIDWEST NATIONAL TECHNICAL CENTER
Federal Building, Room 345
100 Centennial Mall North
Lincoln, NE 68508-3866

NOV 28 1986

Subject: SOI - Soil Correlation - First Amendment to the Classification and Correlation of the Soils of Hamilton County, Illinois Date: November 24, 1986

To: John J. Eckes
State Conservationist
SCS, Champaign, IL

File code: 430-15

Attached are eight copies of the First amendment to the Classification and Correlation of the Soils of Hamilton County, Illinois.

William B. Patterson ACTING
THOMAS N SHIFLET
Director, Midwest NTC

Attachments

cc: (w/attachments)

K. H. Langlois, Jr., Head, Soils Staff, NENTC, SCS, Chester, PA (1)
J. D. Nichols, Head, Soils Staff, SNTC, SCS, Fort Worth, TX (1)
R. W. Kover, Head, Soils Staff, WNTC, SCS, Portland, OR (1)
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UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
Midwest National Technical Center
Lincoln, Nebraska 68508-3866

First Amendment to

Classification and Correlation
of the Soils of
Hamilton County, Illinois

This amendment results from a memo from Earl E. Voss to Rodney F. Harner, dated November 13, 1986, requesting changes be made in the prime farmland list.

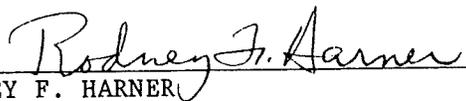
Page 8

Sharon silt loam should have Footnote 1 added because it was published as frequently flooded, but occasionally flooded during the growing season.

Petrolia silty clay loam and Piopolis silty clay loam should both have Footnote 1 removed because they were published as occasionally flooded.

These changes will bring the correlation document in line with the published manuscript.

Approved:



RODNEY F. HARNER
Head, Soils Staff
Midwest NTC

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

See Amendment #1

Classification and Correlation
of the Soils of
Hamilton County, Illinois
January 4-8, 1982

This correlation was prepared jointly by Bruce E. Currie, survey party leader; Wells F. Andrews, Illinois State Office; John D. Alexander, University of Illinois; assisted by Maurice Stout, principal soil correlator, MNTC; and J. Wiley Scott, assistant state soil scientist, Illinois State Office; who prepared the field correlation. This correlation is based upon field notes, compiled soil maps, report manuscript, laboratory data, soil correlation samples, progress field review reports, and discussion with the survey party leader. Maurice Stout participated in the comprehensive field review.

Headnote for Detailed Soil Survey Legend:

Map symbols consist of numbers or a combination of numbers and letters. The initial numbers represent the kind of soil. A capital letter following these numbers indicates the class of slope. Symbols without a slope letter are for nearly level soils. A final number of 2 following the slope letter indicates that the soil is moderately eroded and 3 that it is severely eroded.

<u>Field Symbols</u>	<u>Field Map Unit Name</u>	<u>Publ. Symbol</u>	<u>Approved Map Unit Name</u>
2	Cisne silt loam	2	Cisne silt loam
3B	Hoyleton silt loam, 1 to 5 percent slopes	) 3B	Hoyleton silt loam, 1 to 5 percent slopes
8E2 8E	Hickory silt loam, 15 to 20 percent slopes, eroded	) 8E2	Hickory loam, 15 to 20 percent slopes, eroded
8E3	Hickory loam, 15 to 22 percent slopes, severely eroded	) 8E3	Hickory loam, 15 to 22 percent slopes, severely eroded
8F	Hickory loam, 20 to 35 percent slopes	) 8F	Hickory loam, 20 to 35 percent slopes
12 165	Wynoose silt loam	) 12	Wynoose silt loam
13A	Bluford silt loam, 0 to 2 percent slopes	) 13A	Bluford silt loam, 0 to 2 percent slopes
13B	Bluford silt loam, 2 to 5 percent slopes	) 13B	Bluford silt loam, 2 to 5 percent slopes
13B2	Bluford silt loam, 3 to 6 percent slopes, eroded	) 13B2	Bluford silt loam, 3 to 6 percent slopes, eroded
14B	Ava silt loam, 1 to 5 percent slopes	) 14B	Ava silt loam, 1 to 5 percent slopes
14B2	Ava silt loam, 2 to 5 percent slopes, eroded	) 14B2	Ava silt loam, 2 to 5 percent slopes, eroded
14C2	Ava silt loam, 5 to 10 percent slopes, eroded	) 14C2	Ava silt loam, 5 to 10 percent slopes, eroded
14C3 13C3	Ava silt loam, 5 to 10 percent slopes, severely eroded	) 14C3	Ava silt loam, 5 to 10 percent slopes, severely eroded
14D3 14D2	Ava silt loam, 10 to 18 percent slopes, severely eroded	) 14D3	Ava silt loam, 10 to 18 percent slopes, severely eroded
72	Sharon silt loam	72	Sharon silt loam
108	Bonnie silt loam	108	Bonnie silt loam
109	Raccoon silt loam	109	Raccoon silt loam

<u>Field Symbols</u>	<u>Field Map Unit Name</u>	<u>Publ. Symbol</u>	<u>Approved Map Unit Name</u>
173A	McGary silt loam, 0 to 3 percent slopes	) 173A)	McGary silt loam, 0 to 3 percent slopes
288	Petrolia silty clay loam	288	Petrolia silty clay loam
301B2 214B2	Grantsburg silt loam, 2 to 5 percent slopes, eroded	) 301B2)	Grantsburg silt loam, 2 to 5 percent slopes, eroded
301C2 214C2	Grantsburg silt loam, 5 to 12 percent slopes, eroded	) 301C2)	Grantsburg silt loam, 5 to 12 percent slopes, eroded
301C3 214C3	Grantsburg silt loam, 5 to 12 percent slopes, severely eroded	) 301C3)	Grantsburg silt loam, 5 to 12 percent slopes, severely eroded
337	Creal silt loam	337	Creal silt loam
339E	Wellston silt loam, 15 to 20 percent slopes	) 339E)	Wellston silt loam, 15 to 20 percent slopes
339F	Wellston silt loam, 20 to 35 percent slopes	) 339F)	Wellston silt loam, 20 to 35 percent slopes
340C3	Zanesville silt loam, 5 to 10 percent slopes, severely eroded	) 340C3)	Zanesville silt loam, 5 to 10 percent slopes, severely eroded
340D2 214D2	Zanesville silt loam, 10 to 18 percent slopes, eroded	) 340D2)	Zanesville silt loam, 10 to 18 percent slopes, eroded
340D3	Zanesville silt loam, 10 to 18 percent slopes, severely eroded	) 340D3)	Zanesville silt loam, 10 to 18 percent slopes, severely eroded
382	Belknap silt loam	382	Belknap silt loam
404	Titus silty clay loam	404	Titus silty clay loam
420	Piopolis silty clay loam	420	Piopolis silty clay loam
467B2 467C3 173B2	Markland silt loam, 2 to 5 percent slopes, eroded	) 467B2))	Markland silt loam, 2 to 5 percent slopes, eroded
524 444 422	Zipp silty clay	) 524))	Zipp silty clay

<u>Field Symbols</u>	<u>Field Map Unit Name</u>	<u>Publ. Symbol</u>	<u>Approved Map Unit Name</u>
524+	Zipp silt loam, overwash	524+	Zipp very fine sandy loam, overwash
786F 786E	Frondorf silt loam, 20 to 35 percent slopes	) 786F)	Frondorf silt loam, 15 to 35 percent slopes
787	Banlic silt loam	787	Banlic silt loam
801E	Orthents, silty, moderately steep	) 801E)	Orthents, silty, moderately steep
929D3 929D2	Ava-Hickory complex, 10 to 18 percent slopes, severely eroded	) 929D3)	Ava-Hickory complex, 10 to 18 percent slopes, severely eroded

Series Established by This Correlation:

None

Series Dropped or Made Inactive:

Bungay (Hamilton County, Illinois)

Certification Statement:

The state soil scientist certifies that:

- (1) Mapping was completed in June 1981.
- (2) The joining has been checked for both the general soil map and the detailed maps. Saline County is the only modern soil survey adjacent to Hamilton County. A join has been achieved on the general soil map except for some cartographic detail near the Middle Fork of the Saline River and one of its tributaries. The Belknap-Bonnie Association is mapped on the flood plain in Hamilton County, adjacent to the main channel of the Middle Fork, but Saline County shows the Ava-Bluford-Hickory Association. Saline County shows the Belknap-Banlic-Bonnie Association to the east along a tributary stream at the county line.

The detailed maps join reasonably well. The few differences are listed and explained in the field correlation document.

- (3) The interpretations have been coordinated and agree with those on the interpretations records.
- (4) The location of the typical pedons of the soil series used in this survey area have been checked against the soil maps and are located in mapped areas of the named soil. The legal descriptions are correct. The location will be marked on soil maps by standard spot symbols for soil sample area.

Verification of Exact Cooperator Names:

Front cover, general soil map, and half title page:

United States Department of Agriculture
Soil Conservation Service
in cooperation with
Illinois Agricultural Experiment Station

This survey was made cooperatively by the Soil Conservation Service and the Illinois Agricultural Experiment Station. It is part of the technical assistance provided to the Hamilton County Soil and Water Conservation District. The cost was shared by the Hamilton County Board of Supervisors. This soil survey is Illinois Agricultural Experiment Station Soil Report No. 120.

Disposition of Field Sheets:

The soil maps have been compiled on halftone film positive atlas sheets at a scale of 1:15,840. They have been joined and color checked for accuracy.

The compiled maps are in the map finishing unit at the Illinois state office. The original field sheets (Kind 1594) are in the Hamilton County office, but will be forwarded to the map finishing unit in December 1981 for reference and storage.

Prior Soil Survey Publications:

None

Instructions for Map Finishing;

During map finishing the following map symbols need to be converted:

<u>Compilation Map Symbol</u>	<u>Finished Map Symbol</u>
8E	8E2
13C3	14C3
14D2	14D3
165	12
173B2	467B2
214B2	301B2
214C2	301C2
214C3	301C3
214D2	340D2
422	524
444	524
467C3	467B2
786E	786F
929D2	929D3

Farm ponds are an important source of water supply in Hamilton County and should be shown on the finished maps; but if they are too small to place the symbol "w" inside the delineation, they should be left off.

Spot symbols for severely eroded spots will be drafted on the finished maps in areas previously mapped 467C3.

The miscellaneous water feature for marsh or swamp will be combined with that for wet spot. The symbol for wet spot will be used on the published map.

CONVENTIONAL AND SPECIAL SYMBOLS LEGEND

Soil Survey Area: Hamilton County
State: Illinois

Date: 1/82

DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL
CULTURAL FEATURES		CULTURAL FEATURES (cont.)		SPECIAL SYMBOLS FOR SOIL SURVEY	
BOUNDARIES				SOIL DELINEATIONS AND SOIL SYMBOLS	
County or parish				ESCARPMENTS	
Field sheet matchline & realine				Other than bedrock (points down slope)	
AD HOG BOUNDARY (label)				SHORT STEEP SLOPE	
cemetery				SOIL SAMPLE SITE (normally not shown)	
STATE COORDINATE TICK 1 890 000 FEET				MISCELLANEOUS	
LAND DIVISION CORNERS (sections and land grants)		WATER FEATURES		Gumbo, slick or scabby spot (sodic)	
ROADS		DRAINAGE		Dumps and other similar non soil areas	
County, farm or ranch		Perennial, single line		Rock outcrop (includes sandstone and shale)	
		Intermittent		Saline spot	
		Drainage end		Severely eroded spot	
		Canals or ditches		RECOMMENDED AD HOG SOIL SYMBOLS	
ROAD EMBLEMS & DESIGNATIONS		Drainage and/or irrigation			
State		LAKES, PONDS AND RESERVOIRS			
RAILROAD		Perennial			
		MISCELLANEOUS WATER FEATURES			
DAMS		Wet spot			
Medium or small				Oil-waste land	
PITS					
Mine or quarry					

PRIME FARMLAND

Only the soils considered prime farmland are listed. Urban or built-up areas of the soils listed are not considered prime farmland. If a soil is prime farmland only under certain conditions, the conditions are specified in parentheses after the soil name.

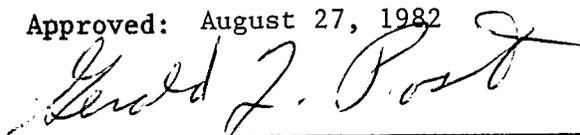
Map Symbol	Soil Name
2	Cisne silt loam (where drained)
3B	Hoyleton silt loam, 1 to 5 percent slopes
13A	Bluford silt loam, 0 to 2 percent slopes (where drained)
13B	Bluford silt loam, 2 to 5 percent slopes (where drained)
13B2	Bluford silt loam, 3 to 6 percent slopes, eroded (where drained)
14B	Ava silt loam, 1 to 5 percent slopes
14B2	Ava silt loam, 2 to 5 percent slopes, eroded
* 72	Sharon silt loam <i>Published as FREQ, but OCCAS DURING the growing season.</i>
108	Bonnie silt loam (where drained) ^{1/}
109	Racoon silt loam (where drained)
173A	McGary silt loam, 0 to 3 percent slopes (where drained)
✓ 288	Petrolia silty clay loam (where drained) ^{1/} <i>Published as OCCAS</i>
301B2	Grantsburg silt loam, 2 to 5 percent slopes, eroded
337	Creal silt loam (where drained)
382	Belknap silt loam (where drained)
404	Titus silty clay loam (where drained)
✓ 420	Piopolis silty clay loam (where drained) ^{1/} <i>Published as OCCAS</i>
467B2	Markland silt loam, 2 to 5 percent slopes, eroded
524	Zipp silty clay (where drained)

These are on the next page.

524 +
787
1/ These soils are frequently flooded, but there generally is little or no crop damage due to early flooding. Therefore, these soils are prime farmland where flooded less often than once in two years during the growing season.

<u>Map</u> <u>Symbol</u>	<u>Soil Name</u>
524+	Zipp very fine sandy loam, overwash (where drained)
787	Banlic silt loam (where drained)

Approved: August 27, 1982



GERALD J. POST
Acting Head, Soils Staff
Midwest NTC

CONVERSION LEGEND RELATING FIELD MAP SYMBOLS
TO PUBLICATION SYMBOLS

<u>Field Map Symbol</u>	<u>Publication Symbol</u>	<u>Field Map Symbol</u>	<u>Publication Symbol</u>
2	2	288	288
3B	3B	301B2	301B2
8E	8E2	301C2	301C2
8E2	8E2	301C3	301C3
8E3	8E3	337	337
8F	8F		
12	12	339E	339E
		339F	339F
13A	13A		
13B	13B	340C3	340C3
13B2	13B2	340D2	340D2
13C3	14C3	340D3	340D3
14B	14B	382	382
14B2	14B2		
14C2	14C2	404	404
14C3	14C3		
14D2	14D3	420	420
14D3	14D3		
		422	524
72	72		
		444	524
108	108		
		467B2	467B2
109	109	467C3	467B2
165	12	524	524
		524+	524+
173A	173A		
		786E	786F
173B2	467B2	786F	786F
214B2	301B2	787	787
214C2	301C2		
214C3	301C3	801E	801E
214D2	340D2		
		929D2	929D3
		929D3	929D3

ALPHABETICAL LISTING OF
SOIL MAP UNITS

<u>Symbol</u>	<u>Soil Map Unit Name</u>
14B	Ava silt loam, 1 to 5 percent slopes
14B2	Ava silt loam, 2 to 5 percent slopes, eroded
14C2	Ava silt loam, 5 to 10 percent slopes, eroded
14C3	Ava silt loam, 5 to 10 percent slopes, severely eroded
14D3	Ava silt loam, 10 to 18 percent slopes, severely eroded
929D3	Ava-Hickory complex, 10 to 18 percent slopes, severely eroded
787	Banlic silt loam
382	Belknap silt loam
13A	Bluford silt loam, 0 to 2 percent slopes
13B	Bluford silt loam, 2 to 5 percent slopes
13B2	Bluford silt loam, 3 to 6 percent slopes, eroded
108	Bonnie silt loam
2	Cisne silt loam
337	Creal silt loam
786F	Frondorf silt loam, 15 to 35 percent slopes
301B2	Grantsburg silt loam, 2 to 5 percent slopes, eroded
301C2	Grantsburg silt loam, 5 to 12 percent slopes, eroded
301C3	Grantsburg silt loam, 5 to 12 percent slopes, severely eroded
8E2	Hickory loam, 15 to 20 percent slopes, eroded
8E3	Hickory loam, 15 to 22 percent slopes, severely eroded
8F	Hickory loam, 20 to 35 percent slopes
3B	Hoyleton silt loam, 1 to 5 percent slopes
467B2	Markland silt loam, 2 to 5 percent slopes, eroded
173A	McGary silt loam, 0 to 3 percent slopes
801E	Orthents, silty, moderately steep
288	Petrolia silty clay loam
420	Piopolis silty clay loam
109	Racoon silt loam

<u>Symbol</u>	<u>Soil Map Unit Name</u>
72	Sharon silt loam
404	Titus silty clay loam
339E	Wellston silt loam, 15 to 20 percent slopes
339F	Wellston silt loam, 20 to 35 percent slopes
12	Wynoose silt loam
340C3	Zanesville silt loam, 5 to 10 percent slopes, severely eroded
340D2	Zanesville silt loam, 10 to 18 percent slopes, eroded
340D3	Zanesville silt loam, 10 to 18 percent slopes, severely eroded
524	Zipp silty clay
524+	Zipp very fine sandy loam, overwash

10
13

CLASSIFICATION OF PEDONS SAMPLED FOR LABORATORY ANALYSIS

A. Data for which forms SCS-SOILS-8 have been prepared:

University of Illinois Pedology Laboratory except as noted.

<u>SAMPLED AS</u>	<u>SAMPLE NUMBER</u>	<u>PUBLICATION MAP SYMBOL</u>	<u>APPROVED CLASSIFICATION</u>
Ava	77IL-33-6	14B	Ava
Unnamed	78IL-33-1*	524	Zipp
Unnamed	78IL-33-2	524	Zipp
Unnamed	78IL-33-3*	524	Zipp
Frondorf	77IL-33-2	786F	Frondorf (typical pedon)
Hosmer	77IL-33-1	214B2	Grantsburg (typical pedon)
McGary	77IL-33-5	173A	McGary
Piopolis	76IL-33-3	420	Taxadjunct to Piopolis series; contains more clay below a depth of 26 inches than defined for the series. Mapped as inclusion in Piopolis.
Wellston	77IL-33-7	339	Wellston (typical pedon)
Zanesville	77IL-33-3	340D3	Zanesville (typical pedon)
Zanesville	77IL-33-4	340D3	Zanesville
Zipp	76IL-33-1	524	Zipp (typical pedon)

B. Data for which forms SCS-SOILS-10 have been prepared.

Bluford
 Bonnie
 Frondorf
 Hoyleton
 Racoon
 Sharon
 Titus
 Zanesville
 Zipp (2 pedon)

*NSSL mineralogy data (additional data)

C. Other supporting data:

University of Illinois Pedology Laboratory except as noted.

<u>SAMPLED AS</u>	<u>SAMPLE NUMBER</u>	<u>PUBLICATION MAP SYMBOL</u>	<u>APPROVED CLASSIFICATION</u>
Banlic S36, T6S, R6E	76IL-33-2	787	Taxadjunct to Banlic; in an acid family; mapped as inclusion in Banlic
Bluford S35, T6S, R6E	77IL-33-9	13B	Taxadjunct to Bluford; in a fine-silty family; mapped as inclusion in Bluford.
Bluford-Creal S6, T6S, R6E	77IL-33-10	13B	Taxadjunct to Bluford; is silt loam to a depth of 25 inches and is silt loam in the upper part of the Bt horizon. Mapped as inclusion in Bluford.
Bluford S4, T7S, R6E	77IL-33-11	13A	Taxadjunct to Bluford; in a fine-silty family and better drained, more like Ava soils; mapped as inclusion in Bluford.
Unnamed (Bungay) S26, T3S, R7E	S78IL-33-4*	524	Zipp
Unnamed (Bungay) S17, T3S, R7E	S78IL-33-6*	524	Zipp
Hurst S15, T7S, R7E	77IL-33-8	173A	Hurst; mapped as inclusion in McGary
Miscellaneous S36, T6S, R7E	76IL-33-1(a-h)	404	Titus
Beaucoup S28, T6S, R7E	76IL-33-4	404	Taxadjunct to Titus; border-line fine-silty:fine
Beaucoup S25, T6S, R7E	76IL-33-5	404	Titus

*NSSL mineralogy data (additional)

Notes to Accompany
Classification and Correlation
of the Soils of
Hamilton County, Illinois

by

J. Wiley Scott
and
Maurice Stout, Jr.

BANLIC SERIES

These soils have higher pH in the E horizon than typical. This appears to result from cultural liming.

HICKORY SERIES

The Hickory soils in Hamilton County contain more local rock fragments of sandstone and shale than typical for the Hickory series.

CLASSIFICATION OF THE SOILS

<u>Soil Name</u>	<u>Family or Higher Taxonomic Class</u>
Ava	Fine-silty, mixed, mesic Typic Fragiudalfs
Banlic	Coarse-silty, mixed, nonacid, mesic Aeric Haplaquepts
Belknap	Coarse-silty, mixed, acid, mesic Aeric Fluvaquents
Bluford	Fine, montmorillonitic, mesic Aeric Ochraqualfs
Bonnie	Fine-silty, mixed, acid, mesic Typic Fluvaquents
Cisne	Fine, montmorillonitic, mesic Mollic Albaqualfs
Creal	Fine-silty, mixed, mesic Aeric Ochraqualfs
Frondorf	Fine-loamy, mixed, mesic Ultic Hapludalfs
Grantsburg	Fine-silty, mixed, mesic Typic Fragiudalfs
Hickory	Fine-loamy, mixed, mesic Typic Hapludalfs
Hoyleton	Fine, montmorillonitic, mesic Aquollic Hapludalfs
Markland	Fine, mixed, mesic Typic Hapludalfs
McGary	Fine, mixed, mesic Aeric Ochraqualfs
Orthents	Fine-silty, mixed, mesic Udorthents
Petrolia	Fine-silty, mixed, nonacid, mesic Typic Fluvaquents
Piopolis	Fine-silty, mixed, acid, mesic Typic Fluvaquents
Racoon	Fine-silty, mixed, mesic Typic Ochraqualfs
Sharon	Coarse-silty, mixed, acid, mesic Typic Udifluvents
Titus	Fine, montmorillonitic, mesic Fluvaquentic Haplaquolls
Wellston	Fine-silty, mixed, mesic Ultic Hapludalfs
Wynoose	Fine, montmorillonitic, mesic Typic Albaqualfs
Zanesville	Fine-silty, mixed, mesic Typic Fragiudalfs
Zipp	Fine, mixed, nonacid, mesic Typic Haplaquepts

CONVENTIONAL AND SPECIAL SYMBOLS LEGEND

Soil Survey Area: Hamilton County
State: Illinois

Date: 1/82

DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL
CULTURAL FEATURES		CULTURAL FEATURES (cont.)		SPECIAL SYMBOLS FOR SOIL SURVEY	
BOUNDARIES				SOIL DELINEATIONS AND SOIL SYMBOLS	
County or parish				ESCARPMENTS	
Field sheet matchline & neatline				Other than bedrock (points down slope)	
AD HOC BOUNDARY (label)				SHORT STEEP SLOPE	
cemetery,				SOIL SAMPLE SITE (normally not shown)	
STATE COORDINATE TICK 1 890 000 FEET		WATER FEATURES		MISCELLANEOUS	
LAND DIVISION CORNERS (sections and land grants)		DRAINAGE		Gumbo, slick or scabby spot (sodic)	
ROADS		Perennial, single line		Dumps and other similar non soil areas	
County, farm or ranch		Intermittent		Rock outcrop (includes sandstone and shale)	
ROAD EMBLEMS & DESIGNATIONS		Drainage end		Saline spot	
State		Canals or ditches		Severely eroded spot	
RAILROAD		Drainage and/or irrigation		RECOMMENDED AD HOC SOIL SYMBOLS	
DAMS		LAKES, PONDS AND RESERVOIRS		Oil-waste land	
Medium or small		Perennial			
PITS		MISCELLANEOUS WATER FEATURES			
Mine or quarry		Wet spot			

Rules of Application for Use of Conventional
and Special Map Symbols for Soil Surveys

1. All symbols are black. Symbols other than boundaries, roads, streams, drainage ends, and soil delineations (pen sizes listed below) will be placed on type overlays of project surveys with clear stripping film with adhesive backing (stickup). Pen size 00 is to be used for symbols on field sheets and for map compilation of other surveys with the following exceptions:

<u>Pen size</u>	<u>Symbols</u>
0	-- Trail and soil delineation.
1	-- Minor civil division, reservation, land grant and limit of soil survey.
2	-- National, state or province, county or parish boundaries, and center line of dams.
2.5	-- All roads except trails.

2. All the symbols shown on the legend will not be used in a single soil survey. Symbols actually used will be underlined in red during the initial field review. Changes in symbols selected must be approved by the state soil scientist.
3. Ad hoc symbols will be defined in the legend in terms of the specific kind and size of area represented.
4. All mapping unit boundaries are unbroken lines. Enclosed areas of water, double line streams and double line canals are mapping unit boundaries.
5. Single and double line roads, railroads, minor civil division lines, field sheet match lines or neatlines, soil survey area boundaries, single line canals, and levees are not mapping unit boundaries.
6. Areas represented by conventional and special symbols will not be included in the table "Approximate Acreage and Proportionate Extent of the Soils" in soil surveys. Acreage for enclosed areas of water more than 40 acres in size; and streams, sloughs, estuaries and canals more than one-eighth of a statute mile in width is given at the end of the table under "water".
7. The following rules apply to symbols for pits, marsh or swamp, and dumps and other similar nonsoil areas:
 - a. Areas less than the minimum size delineation being used in the survey area are indicated only by symbols.
 - b. Areas greater than the minimum size delineation being used in the survey area are delineated, classified, and correlated as mapping units.
8. Where a map scale change occurs in a soil survey area a neatline is used as a boundary. The map scale change is made a part of the joins note parallel to the neatline, e.g. Joins sheet 89 - 1:31680.
9. Proposed roads are not shown. Where the photo image shows a road under construction, represent it on the map as if it were constructed. Interchanges and access and egress ramps to limited access roads are not shown. "Other" roads are shown as necessary for proper orientation of the map.
10. Symbols for schools and churches are centered on the photo image and are not inked to scale.
11. Departure from these conventional and special symbols must be approved by the Deputy Administrator for Soil Survey.

REFERENCE SLIP

1/20/82

TO

Wells Andrews

Soil Correlator (Specialist)

SCS, Champaign, IL

- ACTION
- APPROVAL
- AS REQUESTED
- FOR COMMENT
- FOR INFORMATION
- INITIALS
- NOTE AND FILE
- NOTE AND RETURN
- PER PHONE CALL
- RECOMMENDATION
- REPLY FOR SIGNATURE OF
- RETURNED
- SEE ME
- YOUR SIGNATURE

REMARKS

FROM

Marvin Taylor

REFERENCE SLIP

1/20/82

TO

Wells Andrews

Soil Correlator (Specialist)

SCS, Champaign, IL

ACTION

NOTE AND RETURN

APPROVAL

PER PHONE CALL

AS REQUESTED

RECOMMENDATION

FOR COMMENT

REPLY FOR SIGNATURE OF

FOR INFORMATION

RETURNED

INITIALS

SEE ME

NOTE AND FILE

YOUR SIGNATURE

REMARKS

FROM

Emilia J. ...

Soil Survey Area: Hamilton County
State: Illinois

CONVENTIONAL AND SPECIAL SYMBOLS LEGEND

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 <i>BEZ 382</i>	
National, state, or province		Farmstead, house (omit in urban areas)	•	ESCARPMENTS	<i>C9A</i> _____ <i>F6B2</i>
County or parish		Church	⋮	Bedrock (points down slope)	~~~~~
Minor civil division		School	⋮	Other than bedrock (points down slope)	~~~~~
Reservation (national forest or park, state forest or park, and large airport)		Indian mound (label)	∩	SHORT STEEP SLOPE	.....
Land grant		Located object (label)	⊙	GULLY	~~~~~
Limit of soil survey (label)		Tank (label)	•	DEPRESSION OR SINK	◇
Field sheet matchline & neatline		Wells, oil or gas	⊕	SOIL SAMPLE SITE (normally not shown)	⊙
AD HOC BOUNDARY (label)		Windmill	⊗	MISCELLANEOUS	
Small airport, airfield, park, oilfield, cemetery, or flood pool		Kitchen midden	⊞	Blowout	∪
STATE COORDINATE TICK 1 890 000 FEET		WATER FEATURES		Clay spot	✱
LAND DIVISION CORNERS (sections and land grants)		DRAINAGE		Gravelly spot	⊙
ROADS		Perennial, double line		Gumbo, slick or scabby spot (sodic)	∅
Divided (median shown if scale permits)		Perennial, single line		Dumps and other similar non soil areas	≡
County, farm or ranch		Intermittent		Prominent hill or peak	⊙
Trail		Drainage end		Rock outcrop (includes sandstone and shale)	∇
ROAD EMBLEMS & DESIGNATIONS		Canals or ditches		Saline spot	+
Interstate		Double - line (label)		Sandy spot	⊙
Federal		Drainage and/or irrigation		Severely eroded spot	≡
State		LAKES, PONDS AND RESERVOIRS		Slide or slip (tips point upslope)	∪
Other		Perennial		Stony spot, very stony spot	⊙
RAILROAD		Intermittent		RECOMMENDED AD HOC SOIL SYMBOLS	
POWER TRANSMISSION LINE (normally not shown)		MISCELLANEOUS WATER FEATURES		Oil-waste land	#
PIPE LINE (normally not shown)		Marsh or swamp			
FENCE (normally not shown)		Spring			
LEVEES		Well, artesian			
Without road		Well, irrigation			
With road		Wet spot			
With railroad		<i>Combine with wet spot.</i>			
DAMS					
Large (to scale)					
Medium or small					
PITS					
Gravel pit					
Mine or quarry					

Rules of Application for Use of Conventional
and Special Map Symbols for Soil Surveys

1. All symbols are black. Symbols other than boundaries, roads, streams, drainage ends, and soil delineations (pen sizes listed below) will be placed on type overlays of project surveys with clear stripping film with adhesive backing (stickup). Pen size 00 is to be used for symbols on field sheets and for map compilation of other surveys with the following exceptions:

<u>Pen size</u>	<u>Symbols</u>
0	-- Trail and soil delineation.
1	-- Minor civil division, reservation, land grant and limit of soil survey.
2	-- National, state or province, county or parish boundaries, and center line of dams.
2.5	-- All roads except trails.

2. All the symbols shown on the legend will not be used in a single soil survey. Symbols actually used will be underlined in red during the initial field review. Changes in symbols selected must be approved by the state soil scientist.
3. Ad hoc symbols will be defined in the legend in terms of the specific kind and size of area represented.
4. All mapping unit boundaries are unbroken lines. Enclosed areas of water, double line streams and double line canals are mapping unit boundaries.
5. Single and double line roads, railroads, minor civil division lines, field sheet match lines or neatlines, soil survey area boundaries, single line canals, and levees are not mapping unit boundaries.
6. Areas represented by conventional and special symbols will not be included in the table "Approximate Acreage and Proportionate Extent of the Soils" in soil surveys. Acreage for enclosed areas of water more than 40 acres in size; and streams, sloughs, estuaries and canals more than one-eighth of a statute mile in width is given at the end of the table under "water".
7. The following rules apply to symbols for pits, marsh or swamp, and dumps and other similar nonsoil areas:
 - a. Areas less than the minimum size delineation being used in the survey area are indicated only by symbols.
 - b. Areas greater than the minimum size delineation being used in the survey area are delineated, classified, and correlated as mapping units.
8. Where a map scale change occurs in a soil survey area a neatline is used as a boundary. The map scale change is made a part of the joins note parallel to the neatline, e.g. Joins sheet 89 - 1:31680.
9. Proposed roads are not shown. Where the photo image shows a road under construction, represent it on the map as if it were constructed. Interchanges and access and egress ramps to limited access roads are not shown. "Other" roads are shown as necessary for proper orientation of the map.
10. Symbols for schools and churches are centered on the photo image and are not inked to scale.
11. Departure from these conventional and special symbols must be approved by the Deputy Administrator for Soil Survey.

Supplement to Conventional
and Special Symbols Legend

Hamilton County, Illinois

- Short steep slopes Used when there is sharp elevation difference, usually between upland and bottomland. Slopes normally run between 8 and 12 percent. Elevation difference is usually 6 to 12 feet and the condition runs horizontally from 200 to 800 feet. Length of slope ranges from 50 to 150 feet.
- Rock outcrop Used where sandstone outcrops on side slopes along drainageways. Length of area is from 50 feet to several hundred feet where length of outcrop is short. Usually the bedrock is extremely shallow for greater distance. Outcrop is sufficient to hamper use of the soil around it.
- Severely eroded spot Used on areas of from $\frac{1}{2}$ to 2 acres in size on uneroded and eroded units where soils are severely eroded because slopes are steeper or for some other reason.
- Oil waste land Each symbol stands for from $\frac{1}{2}$ to 2 acres where man's activity has caused damage to the soil by spilling salt water or otherwise damaging the soil's chemical or physical condition. More than one symbol can be used to denote larger acreage.
- Saline spot Natural slick and natural salt kill acres occurring usually at the base of slopes. Depending upon concentration, either completely eliminates or severely damages plant growth. Size of area is $\frac{1}{4}$ to 2 acres per symbol.
- Wet spot Very wet depression area where crop damage is likely to occur due to wetness. Typically $\frac{1}{2}$ to 5 acres in size. Not used in poorly drained soils.
- Sandy spot Surface layer texture is loamy sand or sand surrounded by a map unit with surface texture of loam, silt loam, or finer. Typically $\frac{1}{2}$ to 4 acres in size.

PRIME FARMLAND

Only the soils considered prime farmland are listed. Urban or built-up areas of the soils listed are not considered prime farmland. If a soil is prime farmland only under certain conditions, the conditions are specified in parentheses after the soil name.

<u>Map Symbol</u>	<u>Soil Name</u>
2	Cisne silt loam (where drained)
3B	Hoyleton silt loam, 1 to 5 percent slopes
13A	Bluford silt loam, 0 to 2 percent slopes (where drained)
13B	Bluford silt loam, 2 to 5 percent slopes (where drained)
13B2	Bluford silt loam, 3 to 6 percent slopes, eroded (where drained)
14B	Ava silt loam, 1 to 5 percent slopes
14B2	Ava silt loam, 2 to 5 percent slopes, eroded
72	Sharon silt loam
108	Bonnie silt loam (where drained) ¹¹ and protected from flooding
109	Racoon silt loam (where drained)
173A	McGary silt loam, 0 to 3 percent slopes (where drained)
288	Petrolia silty clay loam (where drained) ¹¹ and protected from flooding
301B2	Grantsburg silt loam, 2 to 5 percent slopes, eroded
337	Creal silt loam (where drained)
382	Belknap silt loam (where drained)
404	Titus silty clay loam (where drained)
420	Piopolis silty clay loam (where drained) ¹¹ and protected from flooding
444	Bungay silty clay (where drained)
467B2	Markland silt loam, 2 to 5 percent slopes, eroded
524	Zipp silty clay (where drained)
524+	Zipp silt loam, overwash (where drained)
787	Banlic silt loam (where drained)

Put in manuscript

These soils are frequently flooded but there generally is little or no crop damage due to early flooding. Therefore, these soils are prime farmland where flooded less often than once in 3 years during the growing season.

Approved:

Date: December 3, 1981

Earl E. Voss

Earl E. Voss
State Soil Scientist
Soil Conservation Service
Champaign, Illinois

CONVERSION LEGEND RELATING FIELD MAP SYMBOLS
TO PUBLICATION SYMBOLS

<u>Field Map Symbol</u>	<u>Publication Symbol</u>	<u>Field Map Symbol</u>	<u>Publication Symbol</u>
2	2	288	288
3B	3B	301B2	301B2
8E	8E2	301C2	301C2
8E2	8E2	301C3	301C3
8E3	8E3	337	337
8F	8F		
12	12	339E	339E
		339F	339F
13A	13A		
13B	13B	340C3	340C3
13B2	13B2	340D2	340D2
13C3	14C3	340D3	340D3
14B	14B	382	382
14B2	14B2		
14C2	14C2	404	404
14C3	14C3		
14D2	14D3	420	420
14D3	14D3		
		422	444 524
72	72		
		444	444 524
108	108		
		467B2	467B2
109	109	467C3	467B2
165	12	524	524
		524+	524+
173A	173A		
		786E	786E <i>F</i>
173B2	467B2	786F	786F
214B2	301B2	787	787
214C2	301C2		
214C3	301C3	801E	801E
214D2	340D2		
		929D2	929D3
		929D3	929D3

ALPHABETICAL LISTING OF
SOIL MAPPING UNITS

Symbol	Soil Mapping Unit Name
14B	Ava silt loam, 1 to 5 percent slopes
14B2	Ava silt loam, 2 to 5 percent slopes, eroded
14C2	Ava silt loam, 5 to 10 percent slopes, eroded
14C3	Ava silt loam, 5 to 10 percent slopes, severely eroded
14D3	Ava silt loam, 10 to 18 percent slopes, severely eroded
929D3	Ava-Hickory complex, 10 to 18 percent slopes, severely eroded
787	Banlic silt loam
382	Belknap silt loam
13A	Bluford silt loam, 0 to 2 percent slopes
13B	Bluford silt loam, 2 to 5 percent slopes
13B2	Bluford silt loam, 3 to 6 percent slopes, eroded
108	Bonnie silt loam
444	Bungay silty clay
2	Cisne silt loam
337	Creal silt loam
786E	Frondorf silt loam, 12 to 20 percent slopes
786F	Frondorf silt loam, 20 ₇₅ to 35 percent slopes
301B2	Grantsburg silt loam, 2 to 5 percent slopes, eroded
301C2	Grantsburg silt loam, 5 to 12 percent slopes, eroded
301C3	Grantsburg silt loam, 5 to 12 percent slopes, severely eroded
8E2	Hickory silt loam, 15 to 20 percent slopes, eroded
8E3	Hickory loam, 15 to 22 percent slopes, severely eroded
8F	Hickory loam, 20 to 35 percent slopes
3B	Hoyleton silt loam, 1 to 5 percent slopes
467B2	Markland silt loam, 2 to 5 percent slopes, eroded
173A	McGary silt loam, 0 to 3 percent slopes
801E	Orthents, silty, moderately steep
288	Petrolia silty clay loam
420	Piopolis silty clay loam
109	Raccoon silt loam

<u>Symbol</u>	<u>Soil Mapping Unit Name</u>
72	Sharon silt loam
404	Titus silty clay loam
339E	Wellston silt loam, 15 to 20 percent slopes
339F	Wellston silt loam, 20 to 35 percent slopes
12	Wynoose silt loam
340C3	Zanesville silt loam, 5 to 10 percent slopes, severely eroded
340D2	Zanesville silt loam, 10 to 18 percent slopes, eroded
340D3	Zanesville silt loam, 10 to 18 percent slopes, severely eroded
524	Zipp silty clay
524+	Zipp silt loam, overwash <i>very fine sandy</i>

11/25/8

Creal - #337

may change
classification --

ok with Joe, but
let him know of
decision.

Bond
Williamson
Salina
Gallatin

Note this in
letter of
transmittal
for the correlation
document.
jws.

CLASSIFICATION OF PEDONS SAMPLED FOR LABORATORY ANALYSIS

A. Data for which forms SCS-SOILS-8 have been prepared:

University of Illinois Pedology Laboratory except as noted.

<u>SAMPLED AS</u>	<u>SAMPLE NUMBER</u>	<u>PUBLICATION MAP SYMBOL</u>	<u>APPROVED CLASSIFICATION</u>
Ava	77IL-33-6	14B	Ava
Unnamed	78IL-33-1*	444 524	Bungay Zipp
Unnamed	78IL-33-2	444 524	Bungay (type location) Zipp
Unnamed	78IL-33-3*	444 524	Bungay Zipp
Frondorf	77IL-33-2	786 E F	Frondorf (typical pedon)
Hosmer	77IL-33-1	214B2	Grantsburg (typical pedon)
McGary	77IL-33-5	173A	McGary
Piopolis	76IL-33-3	420	Taxadjunct to Piopolis series; contains more clay below a depth of 26 inches than defined for the series. Mapped as inclusion in Piopolis.
Wellston	77IL-33-7	339	Wellston (typical pedon)
Zanesville	77IL-33-3	340D3	Zanesville (typical pedon)
Zanesville	77IL-33-4	340D3	Zanesville
Zipp	76IL-33-1	524	Zipp (typical pedon)

B. Data for which forms SCS-SOILS-10 have been prepared. (The survey leader is correcting entries on the forms and is checking classification of the pedons and will report both at the final correlation conference.)

Bluford
 Bonnie
~~Bungay~~
 Frondorf
 Hoyleton
 Racoon
 Sharon
 Titus
 Zanesville
 Zipp (2 pedons)

*NSSL mineralogy data (additional data)

*Mike would
copy of this data*

C. Other supporting data:

University of Illinois Pedology Laboratory except as noted.

<u>SAMPLED AS</u>	<u>SAMPLE NUMBER</u>	<u>PUBLICATION MAP SYMBOL</u>	<u>APPROVED CLASSIFICATION</u>
Banlic S36, T6S, R6E	76IL-33-2	787	Taxadjunct to Banlic; in an acid family; mapped as inclusion in Banlic
Bluford S35, T6S, R6E	77IL-33-9	13B	Taxadjunct to Bluford; in a fine-silty family; mapped as inclusion in Bluford.
Bluford-Creal S6, T6S, R6E	77IL-33-10	13B	Taxadjunct to Bluford; is silt loam to a depth of 25 inches and is silt loam in the upper part of the Bt horizon. Mapped as inclusion in Bluford.
Bluford S4, T7S, R6E	77IL-33-11	13A	Taxadjunct to Bluford; in a fine-silty family and better drained, more like Ava soils; mapped as inclusion in Bluford.
Unnamed (Bungay) S26, T3S, R7E	S78IL-33-4*	444-524	Bungay Zipp
Unnamed (Bungay) S17, T3S, R7E	S78IL-33-6*	444-524	Bungay Zipp
Hurst S15, T7S, R7E	77IL-33-8	173A	Hurst; mapped as inclusion in McGary
Miscellaneous S36, T6S, R7E	76IL-33-1(a-h)	404	Titus
Beaucoup S28, T6S, R7E	76IL-33-4	404	Taxadjunct to Titus; border-line fine-silty:fine
Beaucoup S25, T6S, R7E	76IL-33-5	404	Titus

*NSSL mineralogy data (additional)

U.S. DEPARTMENT OF AGRICULTURE

DATE

REFERENCE SLIP

12/30/81

TO

Amy

- ACTION
- APPROVAL
- AS REQUESTED
- FOR COMMENT
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REMARKS

I have made a study of correlated pedons of Creal and don't believe we would be justified to re-classify it. I believe we should tax-adjust Creal in Hamilton Co. We may need to adjust water table of series to 2-4 ft. to be compatible with Aquic Hapludalfs.

FROM

Wiley

See notes with file copy of Series.

NOTES TO ACCOMPANY THE CLASSIFICATION AND CORRELATION
OF THE SOILS OF HAMILTON COUNTY, ILLINOIS

BY
J. WILEY SCOTT
and
Maurice Stout, Jr.

AVA SERIES

BANLIC SERIES

These soils have higher pH in the E horizon than typical. This appears to result from cultural liming.

BELKNAP SERIES

BLUFORD SERIES

BONNIE SERIES

BUNGAY SERIES

The type location of this new series is in Hamilton County.

*Possibly exposed first to mech. acid and has
to be acid inclusions.*

CISNE SERIES

CREAL SERIES

We are re-classifying the Creal series to fine-silty, mixed, mesic Aeric Ochraqualfs, and moving the type location to Hamilton County.

FRONDORF SERIES

check slope vs Capability

GRANTSBURG SERIES

HICKORY SERIES

The Hickory soils in Hamilton County contain more local rock fragments of sandstone and shale than typical for the Hickory series.

HOYLETON SERIES

*Increase lower thickness to account into
Pedon.*

MARKLAND SERIES

These soils are ^{no} taxadjuncts to the Markland series because they average less than 40 percent clay in the control section.

MCGARY SERIES

OK no longer taxadjunct

These soils are taxadjuncts to the McGary series because they are leached of free carbonates to a greater depth than defined for McGary series.

ORTHENTS

PETROLIA SERIES

PIOPOLIS SERIES

RACCOON SERIES

*add Wynoose - delete flooding
+ water table.*

SHARON SERIES

TITUS SERIES

WELLSTON SERIES

WYNOOSE SERIES

include with Raccoon - No.

ZANESVILLE SERIES

ZIPP SERIES

Classification of the Soils

Soil Name	Family or Higher Taxonomic Class
Ava	Fine-silty, mixed, mesic Typic FragiudalFs
Banlic	Coarse-silty, mixed, nonacid, mesic Aeric Haplaquepts
Belknap	Coarse-silty, mixed, acid, mesic, Aeric Fluvaquents
Bluford	Fine, montmorillonitic, mesic, Aeric Ochraqualfs
Bonnie	Fine-silty, mixed, acid, mesic, Typic Fluvaquents
Bungay	Fine, mixed, nonacid, mesic, Typic Haplaquepts
Cisne	Fine, montmorillonitic, mesic, mollic Albaqualfs
Creal	Fine-silty, mixed, mesic, Aeric Ochraqualfs <i>Aquic HapludalFs</i>
Frondorf	Fine-loamy, mixed, mesic, Ultic HapludalFs
Grantsburg	Fine-silty, mixed, mesic Typic FragiudalFs
Hickory	Fine-loamy, mixed, mesic, Typic HapludalFs
Hoyleton	Fine, montmorillonitic, mesic, Aquollic HapludalFs
Markland	Fine, mixed, mesic, Typic HapludalFs
McGary	Fine, mixed, mesic, Aeric Ochraqualfs
Orthents	Fine-silty, mixed, mesic Udorthents
Petrolia	Fine-silty, mixed, nonacid, mesic, Typic Fluvaquents
Piopolis	Fine-silty, mixed, acid, mesic, Typic Fluvaquents
Racoon	Fine-silty, mixed, mesic, Typic Ochraqualfs
Sharon	Coarse-silty, mixed, acid, mesic, Typic Udifluvents
Titus	Fine, montmorillonitic, mesic, Fluvaquentic Haplaquolls
Wellston	Fine-silty, mixed, mesic, Ultic HapludalFs
Wynoose <i>to Racoon</i>	Fine, montmorillonitic, mesic, Typic Albaqualfs
Zanesville	Fine-silty, mixed, mesic, Typic FragiudalFs
Zipp	Fine, mixed, nonacid, mesic, Typic Haplaquepts

~~*Taxadjuncts - see "Notes to Accompany" for details.~~