

UPCOMING CHANGES FROM CSR TO CSR2 AND CHANGES TO THE SOIL SURVEY GEOGRAPHIC (SSURGO) LAYER FOR THE FAYETTE COUNTY 2015 ASSESSMENT YEAR INFORMATION DOCUMENT

Note: An update from the USDA Natural Resources Conservation Service concerning 4 soil types within Fayette County

musym	Map Unit Name	Old CSR2	New CSR2
399	Readlyn loam, 1 to 3 percent slopes	96	91
162C2	Downs silt loam, 5 to 9 percent slopes, moderately eroded	82	80
162D2	Downs silt loam, 9 to 14 percent slopes, moderately eroded	56	54
162E2	Downs silt loam, 14 to 18 percent slopes, moderately eroded	44	42

Beginning with the 2015 assessment year, Fayette County will be switching productivity indexes from CSR to CSR2. Along with the new CSR2's, a new Soil Survey Geographic (SSURGO) layer updated yearly with the newest changes of soil types and geography from USDA Natural Resources Conservation Service will be available. Fayette County Government will update the SSURGO layer biannually to coincide with the Fayette County Assessor's reassessment period. NRCS completed the CSR2 soil database update in December 2013 and published it in January 2014. The SSURGO layers are updated yearly with the latest version for Fayette County being published on Sept 16, 2014.

Landowners and other concerned citizens can go to www.beacon.schneidercorp.com website, select Fayette County and see the differences of the productivity indexes between CSR and CSR2 for each soil type, along with any changes to the Soil Survey.

In order to view the changes between productivity indexes, go to an area on the Beacon Map that you would like to compare. In the Layer List on the left side of the map, click the (+) next to Ag Layers to expand and check the box next to Soils and Soils 2014. Both soil layers will appear on the Beacon map. The new Soil layer, **Soils 2014** will be in **Pink** with the labels of the **Musym Soil Code** and the **New CSR2 Value**. The outgoing Soil layer, **Soils**, with the CSR values are in **Brown** with just with the **Musym Soil Code** being labeled.

To compare changes from CSR to CSR2, do the following: On the Layer List on the left side of the map, click over word **Soils** to make that layer active. When the layer becomes active, blue information (i) will appear. Ensuring that the same blue information (i) is highlighted on the upper tool bar, click on one of the soil types. That soil type will become highlighted and an information window will pop up containing the following information: **Musym**, the soil type and **CSR**.

Note: With the new yearly **SSURGO Layer**, there are Geographic (spatial) changes to the soil boundaries and a few **Musym Soil Codes** have changed. Parts of the SSURGO Layer's Metadata depicting these changes are copied at the bottom of this document.

Note: Fayette County GIS also did an update on the nonrated soil areas within the county. According to NRCS, a nonrated soil is the following: 5010 - Pits, Sand, and Gravel; 5030 - Pits, limestone quarry; AW - Animal waste; INT - Intermittent water; SL - Sewage lagoon; and W – Water. Updates were not done along rivers due to the complexity of the Soil Types surrounding rivers and only ponds with of area of ½ acre or larger were added unless the body of water was already present in the SSURGO layer. LIDAR Imagery from 2008 and Aerial Imagery from 2010 and 2013 were used to update these nonrated areas. These changes were discussed with members of the U.S. Department of Agriculture, Natural Resources Conservation Service.

For more information about this change, why is it occurring and what impact it could have on you, please click on one of the following links.

<http://www.extension.iastate.edu/agdm/articles/others/JenSept13.html>

<http://www.hfmgt.com/2014%20Hertz%20CSR%20and%20CSR2.pdf>

<http://www.extension.iastate.edu/soils/ispaid>

Musym Soil Codes Changes: Copied from the Metadata file.

Process_Step:

Process_Description:

The MUSYMs 151 and 152, Marshan loam*, 0 to 2 percent slopes 24 to 32 inches to sand and gravel and Marshan loam*, 0 to 2 percent slopes 32 to 40 inches to sand and gravel, respectively, were inconsistently mapped in the published Soil Surveys of Iowa. As an MLRA 104 project in FY 2007, the NRCS-Waverly Iowa Soils Office staff transected and determined the depth to sand and gravel ranged from 20 to 40 inches. This is the full allowable range to S&G for the Marshan series. Thus, the MUSYMs 151 and 152 depth phase were correlated to the MUSYM 1152 full range phase (1152 Marshan silty clay loam, 0 to 2 percent slopes, 20 to 40 inches to sand or gravel). All spatial edits were completed in ArcMap 9.2. For proper soil line joining, some of the soil lines and/or soil symbols were changed to proper match the updated

soil lines of the Bremer County Soil Survey Update Project completed in March 2008. All spatial edits were completed in ArcMap 9.2. The data was then sent to the Wisconsin digitizing Unit, in Madison, Wisconsin. The data were then processed with the May 2004 Re-archiving AMLs provided by U.S. Department of Agriculture, Natural Resources Conservation Service, National Cartography and Geospatial Center, Fort Worth, Texas (NCGC). Upon successful completion of the Re-archiving AMLs, it was submitted to the Soil Data Warehouse for archival and distribution.

Source_Used_Citation_Abbreviation: NRCS9

Process_Date: 2008

Process_Step:

Process_Description:

The spatial data for Fayette County, Iowa were downloaded from the Soil Data Mart. The MUSYMs 225 and 226, Lawler loam*, 0 to 2 percent slopes 24 to 32 inches to sand and gravel and Lawler loam*, 0 to 2 percent slopes 32 to 40 inches to sand and gravel, respectively, were inconsistently mapped in the published Soil Surveys of Iowa. As an MLRA 104 project in FY 2008, the NRCS-Waverly Iowa Soils Office staff transected and determined the depth to sand and gravel ranged from 20 to 40 inches. This is the full allowable range to S&G for the Lawler series. Thus, the MUSYMs 225 and 226 depth phase were correlated the MUSYM 1226 full range phase. * - surface textures vary per county. It may be silt loam, silty clay loam, loam, clay loam.

The Frequently flooded map units were inconsistently mapped in the published Soil Surveys of Iowa. As an MLRA 104 project in FY 2008, the NRCS-Waverly Iowa Soils Office staff photo interpreted 5 years of imagery and determined if the frequently flooded polygons had greater than 50% cropping history. If it was determined that the polygon was farmed less than 50% of the time it was left as a frequently flooded soil. If it was determined that the polygon was farmed greater than or equal to 50% of the time it was changed to a similar occasionally flooded soil that was already on the county legend.

The changes to these polygons were either a complete conversion of the polygon from a frequently flooded MUSYM to an occasionally flooded MUSYM, or the occasionally flooded area could have been cut from the frequently flooded polygon and assigned an occasionally flooded MUSYM. In addition polygons that were visited by a resource scientist and determined to be in need of edits were also changed with this project. Map Units affected for Fayette County were C135, 315, 485, and 536. All

spatial edits were completed in ArcMap 9.2.

The MUSYM 725, Hayfield loam*, 0 to 2 percent slopes 24 to 32 inches to sand and gravel was inconsistently mapped in the published Soil Surveys of Iowa. As an MLRA 104 project in FY 2009, the NRCS-Waverly Iowa Soils Office staff transected and determined the depth to sand and gravel ranged from 20 to 40 inches. This is the full allowable range to S&G for the Hayfield series. Thus, the MUSYM 725 depth phase was correlated the MUSYM 626 full range phase. * - surface textures vary per county. It may be silt loam, silty clay loam, loam, clay loam.

The data was then sent to the Wisconsin digitizing Unit, in Madison, Wisconsin. The data were then processed in ARCGIS 9.2 using a topology Object with a 0.1 meter cluster tolerance for the purpose of eliminating Gaps and overlaps along the shared boundaries of Winneshiek, Clayton, Buchanan, Bremer, and Chickasaw Counties, Iowa. Additional edits were made to resolve any gaps or overlaps that exceeded the 0.1 meter cluster tolerance. The data were then processed with the May 2004 Re-archiving AMLs provided by U.S. Department of Agriculture, Natural Resources Conservation Service, National Cartography and Geospatial Center, Fort Worth, Texas (NCGC). Upon successful completion of the Re-archiving AMLs, it was submitted to the Soil Data Warehouse for archival and distribution.

Source_Used_Citation_Abbreviation: NRCS10

Process_Date: 20090303

The following metadata insert affects the 162C and 162D Musym Soil Codes

Process_Step:

Process_Description:

The spatial data for Fayette County, Iowa soil survey area were downloaded from Web Soil Survey on February 10, 2014. The individual shapefiles were appended into a geodatabase for Region 11. The spatial attributes were updated because of the SDJR - MLRA 105 - Downs silt loam, 5 to 9 percent slopes, moderately eroded project and "SDJR - MLRA 105 - Downs silt loam, 9 to 14 percent slopes, moderately eroded" project. The Region 11 staff checked the spatial data with the ArcGIS 10.2 software. The spatial data was checked with SSURGO quality assurance tools provided by U.S. Department of Agriculture, Natural Resources Conservation Service. The labels in the spatial data matched the symbols in the mapunit table from NASIS. Individual soil survey area data were exported as shapefiles from the regional geodatabase. Upon successful completion of the SSURGO Evaluation, the area, line and point shapefiles, the feature file and the metadata were electronically transferred to the NRCS Staging Server to be joined with the tabular data for archival and distribution.

Source_Used_Citation_Abbreviation: NRCS12, NASIS

Process_Date: 20140912

Iowa Corn Suitability Rating (CSR2) (IA)

Corn suitability ratings provide a relative ranking of all soils mapped in the state of Iowa based on their potential to be utilized for intensive row crop production. The CSR2 is an index that can be used to rate one soil's potential yield against another over a period of time. The CSR2 considers average weather conditions as well as frequency of use of the soil for row crop production. Ratings range from 100 for soils that have no physical limitations, occur on minimal slopes, and can be continuously row cropped to as low as 5 for soils with severe limitations for row crops. The ratings listed in this table assume a) adequate management, b) natural weather conditions (no irrigation), c) artificial drainage where required, d) that soils lower on the landscape are not affected by frequent floods, and e) no land leveling or terracing. The weighed CSR2 for a given field can be modified by the occurrence of sandy spots, local deposits, rock and gravel outcroppings, field boundaries, noncrossable drainage ways, and so forth. Even though predicted average yields will change with time, the CSRs are expected to remain relatively constant in relation to one another over time. Reference ISPAID manual, Iowa State University Extension Service.

Report—Iowa Corn Suitability Rating (CSR2) (IA)

Corn suitability ratings (CSR2) provide a relative ranking of all soils mapped in the state of Iowa based on their potential to be utilized for intensive row crop production. The CSR2 is an index that can be used to rate one soil's potential yield against another over a period of time. Ratings range from 100 for soils that have no physical limitations, occur on minimal slopes, and can be continuously row cropped to as low as 5 for soils with severe limitations for row crops.

Iowa Corn Suitability Rating (CSR2) (IA)–Fayette County, Iowa		
Map symbol	Map unit name	IA CSR2
27B	Terril loam, 2 to 5 percent slopes	89
41	Sparta loamy fine sand, 0 to 2 percent slopes	45
41B	Sparta loamy fine sand, 2 to 5 percent slopes	37
41C	Sparta loamy fine sand, 5 to 9 percent slopes	34
41D	Sparta loamy fine sand, 9 to 14 percent slopes	7
63C	Chelsea loamy fine sand, 2 to 9 percent slopes	11
63E	Chelsea loamy fine sand, 14 to 25 percent slopes	5
83B	Kenyon loam, 2 to 5 percent slopes	90
83C	Kenyon loam, 5 to 9 percent slopes	85
83C2	Kenyon loam, 5 to 9 percent slopes, eroded	84
84	Clyde clay loam, 0 to 3 percent slopes	88
98	Huntsville silt loam, 0 to 2 percent slopes	93
98B	Huntsville silt loam, 2 to 5 percent slopes	88
109B	Backbone fine sandy loam, 2 to 5 percent slopes	37
109C	Backbone fine sandy loam, 5 to 9 percent slopes	31

Iowa Corn Suitability Rating (CSR2) (IA)---Fayette County, Iowa		
Map symbol	Map unit name	IA CSR2
109D	Backbone fine sandy loam, 9 to 14 percent slopes	5
110B	Lamont fine sandy loam, 1 to 5 percent slopes	54
110C	Lamont fine sandy loam, 5 to 14 percent slopes	28
115F	Sandy escarpments, 14 to 30 percent slopes	5
135	Coland clay loam, 0 to 2 percent slopes	71
142B	Chaseburg silt loam, 2 to 5 percent slopes	68
158	Dorchester silt loam, 0 to 2 percent slopes	81
162B	Downs silt loam, 2 to 5 percent slopes	90
162C	Downs silt loam, 5 to 9 percent slopes	85
162C2	Downs silt loam, 5 to 9 percent slopes, moderately eroded	82
162D	Downs silt loam, 9 to 14 percent slopes	59
162D2	Downs silt loam, 9 to 14 percent slopes, moderately eroded	56
162E2	Downs silt loam, 14 to 18 percent slopes, moderately eroded	44
163B	Fayette silt loam, 2 to 5 percent slopes	84
163C	Fayette silt loam, 5 to 9 percent slopes	79
163C2	Fayette silt loam, 5 to 9 percent slopes, moderately eroded	76
163D	Fayette silt loam, 9 to 14 percent slopes	53
163D2	Fayette silt loam, 9 to 14 percent slopes, moderately eroded	50
163D3	Fayette silt loam, 9 to 14 percent slopes, severely eroded	41
163E	Fayette silt loam, 14 to 18 percent slopes	41
163E2	Fayette silt loam, 14 to 18 percent slopes, moderately eroded	38
163E3	Fayette silt loam, 14 to 18 percent slopes, severely eroded	30
163F	Fayette silt loam, 18 to 25 percent slopes	23
163F2	Fayette silt loam, 18 to 25 percent slopes, moderately eroded	20
163F3	Fayette silt loam, 18 to 25 percent slopes, severely eroded	13
163G	Fayette silt loam, 25 to 40 percent slopes	5
171B	Bassett loam, 2 to 5 percent slopes	85
171C	Bassett loam, 5 to 9 percent slopes	80
171C2	Bassett loam, 5 to 9 percent slopes, eroded	77
171D2	Bassett loam, 9 to 14 percent slopes, eroded	54
171E2	Bassett loam, 14 to 18 percent slopes, eroded	39
175B	Dickinson fine sandy loam, 2 to 5 percent slopes	51
175C	Dickinson fine sandy loam, 5 to 9 percent slopes	46
175D	Dickinson fine sandy loam, 9 to 14 percent slopes	20
177	Saude loam, 0 to 2 percent slopes	60
177B	Saude loam, 2 to 5 percent slopes	55
177C	Saude loam, 5 to 9 percent slopes	50
178	Waukee loam, 0 to 2 percent slopes	70

Iowa Corn Suitability Rating (CSR2) (IA)---Fayette County, Iowa		
Map symbol	Map unit name	IA CSR2
178B	Waukee loam, 2 to 5 percent slopes	65
183C	Dubuque silt loam, 20 to 30 inches to limestone, 5 to 9 percent slopes	38
183D2	Dubuque silt loam, 20 to 30 inches to limestone, 9 to 14 percent slopes, moderately eroded	10
183E	Dubuque silt loam, 20 to 30 inches to limestone, 14 to 18 percent slopes	5
183E2	Dubuque silt loam, 20 to 30 inches to limestone, 14 to 18 percent slopes, moderately eroded	5
183F	Dubuque silt loam, 20 to 30 inches to limestone, 18 to 25 percent slopes	5
193	Camden silt loam, 0 to 2 percent slopes	87
198B	Floyd loam, 1 to 4 percent slopes	89
213	Rockton loam, 30 to 40 inches to limestone, 0 to 2 percent slopes	58
213B	Rockton loam, 30 to 40 inches to limestone, 2 to 5 percent slopes	53
214	Rockton loam, 20 to 30 inches to limestone, 0 to 2 percent slopes	52
214B	Rockton loam, 20 to 30 inches to limestone, 2 to 5 percent slopes	47
214C	Rockton loam, 20 to 30 inches to limestone, 5 to 9 percent slopes	42
215E	Goss loam, 9 to 18 percent slopes	5
221	Palms muck, 1 to 4 percent slopes	44
265	Bixby loam, 0 to 2 percent slopes	44
265B	Bixby loam, 2 to 6 percent slopes	39
284	Flagler sandy loam, 0 to 2 percent slopes	56
284B	Flagler sandy loam, 2 to 5 percent slopes	49
284C	Flagler sandy loam, 5 to 9 percent slopes	44
284C2	Flagler sandy loam, 5 to 9 percent slopes, moderately eroded	41
285	Burkhardt sandy loam, 0 to 2 percent slopes	22
285B	Burkhardt sandy loam, 2 to 5 percent slopes	18
285C2	Burkhardt sandy loam, 5 to 9 percent slopes, moderately eroded	10
285E2	Burkhardt sandy loam, 9 to 18 percent slopes, moderately eroded	5
302B	Coggon loam, 2 to 5 percent slopes	76
302C	Coggon loam, 5 to 9 percent slopes	71
315	Loamy alluvial land	5
354	Marsh	5
391B	Clyde-Floyd complex, 1 to 4 percent slopes	87
394B	Ostrander loam, 2 to 5 percent slopes	90
394C	Ostrander loam, 5 to 9 percent slopes	84
394C2	Ostrander loam, 5 to 9 percent slopes, moderately eroded	83
395B	Marquis loam, 2 to 5 percent slopes	91
398	Tripoli clay loam, 0 to 2 percent slopes	90
399	Readlyn loam, 0 to 2 percent slopes	96
399B	Readlyn loam, 2 to 5 percent slopes	91
407B	Schley loam, 1 to 4 percent slopes	81

Iowa Corn Suitability Rating (CSR2) (IA)---Fayette County, Iowa		
Map symbol	Map unit name	IA CSR2
408B	Olin fine sandy loam, 2 to 5 percent slopes	73
408C	Olin fine sandy loam, 5 to 9 percent slopes	69
409B	Dickinson fine sandy loam, till substratum, 2 to 5 percent slopes	74
409C	Dickinson fine sandy loam, till substratum, 5 to 9 percent slopes	69
444B	Jacwin loam, 2 to 5 percent slopes	63
444C	Jacwin loam, 5 to 9 percent slopes	58
444D	Jacwin loam, 9 to 14 percent slopes	33
471	Oran loam, 1 to 3 percent slopes	81
478G	Rock outcrop-Nordness complex, 25 to 60 percent slopes	5
480C	Orwood silt loam, 5 to 9 percent slopes	81
480D2	Orwood silt loam, 9 to 14 percent slopes, moderately eroded	52
480E2	Orwood silt loam, 14 to 18 percent slopes, moderately eroded	40
482B	Racine loam, 2 to 5 percent slopes	78
485	Spillville loam, 0 to 2 percent slopes	81
487B	Otter-Huntsville silt loams, 2 to 5 percent slopes	80
489	Ossian silt loam, 0 to 2 percent slopes	84
490	Caneek silt loam, 0 to 2 percent slopes	56
496B	Dorchester-Volney complex, 2 to 5 percent slopes	62
497F	Fayette-Dubuque-Jacwin complex, 14 to 25 percent slopes	25
497G	Fayette-Dubuque-Jacwin complex, 25 to 40 percent slopes	12
499B	Nordness silt loam, 2 to 5 percent slopes	5
499D	Nordness silt loam, 5 to 14 percent slopes	5
499F	Nordness silt loam, 14 to 25 percent slopes	5
512B	Marlean loam, 2 to 5 percent slopes	60
512D	Marlean loam, 5 to 14 percent slopes	36
536	Hanlon fine sandy loam, 0 to 2 percent slopes	77
551	Calamine silty clay loam, 1 to 3 percent slopes	56
582B	Kasson loam, 2 to 5 percent slopes	82
620B	Port Byron silt loam, 2 to 5 percent slopes	95
626	Hayfield loam, 0 to 2 percent slopes, rarely flooded	53
714	Winneshiek loam, 20 to 30 inches to limestone, 0 to 2 percent slopes	47
714B	Winneshiek loam, 20 to 30 inches to limestone, 2 to 5 percent slopes	42
714C	Winneshiek loam, 20 to 30 inches to limestone, 5 to 9 percent slopes	37
714D	Winneshiek loam, 20 to 30 inches to limestone, 9 to 14 percent slopes	13
763D2	Exette silt loam, 9 to 14 percent slopes, moderately eroded	58
763E2	Exette silt loam, 14 to 18 percent slopes, moderately eroded	46
763E3	Exette silt loam, 14 to 18 percent slopes, severely eroded	39
763F2	Exette silt loam, 18 to 25 percent slopes, moderately eroded	28

Iowa Corn Suitability Rating (CSR2) (IA)---Fayette County, Iowa		
Map symbol	Map unit name	IA CSR2
763F3	Exette silt loam, 18 to 25 percent slopes, severely eroded	21
777	Wapsie loam, 0 to 2 percent slopes	49
777B	Wapsie loam, 2 to 5 percent slopes	45
777C	Wapsie loam, 5 to 9 percent slopes	40
778	Sattre loam, 0 to 2 percent slopes, Rarely Flooded	54
781B	Lourdes loam, 2 to 5 percent slopes	75
781C	Lourdes loam, 5 to 9 percent slopes	70
782	Donnan loam, 0 to 2 percent slopes	67
782B	Donnan loam, 2 to 5 percent slopes	62
782C	Donnan loam, 5 to 9 percent slopes	57
783B	Cresco loam, 2 to 5 percent slopes	84
783C	Cresco loam, 5 to 9 percent slopes	79
784B	Riceville loam, 1 to 4 percent slopes	69
798B	Protivin loam, 1 to 4 percent slopes	72
926	Canoe silt loam, 0 to 2 percent slopes	88
977	Richwood silt loam, 0 to 2 percent slopes	99
978	Festina silt loam, 0 to 2 percent slopes	94
1152	Marshan clay loam, 0 to 2 percent slopes	55
1226	Lawler loam, 24 to 40 inches to sand and gravel, 0 to 2 percent slopes	60
1585	Spillville, channeled-Coland, channeled-Aquolls, ponded, complex, 0 to 2 percent slopes	5
1936	Spillville-Udifluvents complex, channeled, 0 to 2 percent slopes	25
5010	Pits, Sand, and Gravel	
5030	Pits, limestone quarry	
5040	Orthents, loamy	5
AW	Animal waste	
C135	Coland clay loam, channeled, 0 to 2 percent slopes	18
C158	Dorchester silt loam, channeled, 0 to 2 percent slopes	32
INT	Intermittent water	
SL	Sewage lagoon	
W	Water	

Data Source Information

Soil Survey Area: Fayette County, Iowa
 Survey Area Data: Version 18, Dec 11, 2013