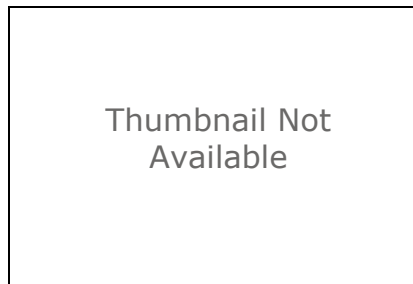


# ACPF Six-year Land Use by field: Upper Mississippi River Basin 2015-2020

## File Geodatabase Table



### Tags

United States Department of Agriculture (USDA), USDA/ARS, Agricultural Conservation Planning Framework, ACPF, scientificInformation, Farming, boundaries, Field Boundaries, farming, Digitizing, NASS Crop Data Layer, conservation planning, USDA/ARS, Upper Mississippi River Basin, UMRB, Agricultural Conservation Planning Framework, ACPF

### Summary

Improving the quality of water discharged from agricultural watersheds requires comprehensive and adaptive approaches for planning and implementing conservation practices. These measures will need to consider landscape hydrology, distributions of soil types, land cover, and crop distributions in an integrated manner. The two most consistent challenges to these efforts will be consistency and reliability of data, and the capacity to translate conservation planning from watershed to farm and field scales. The translation of scale is required because, while conservation practices can be planned based on a watershed scale framework, they must be implemented by landowners in specific fields and riparian sites that are under private ownership. To support these goals, it has been necessary to develop planning approaches, high-resolution spatial datasets, and conservation practice assessment tools that will allow the agricultural and conservation communities to characterize and mitigate these challenges. The field boundary dataset represents a spatial framework for assembling and maintaining geospatial data to support conservation planning at the scale where conservation practices are implemented.

### Description

This 6-year land-use summary table has been assembled to support field-scale agricultural conservation planning using the USDA/ARS Agricultural conservation Planning Framework (ACPF). The original data used to create this database are the NASS Crop Data Layer datasets and individual HUC12 watershed field boundary feature classes. For each of the last six years, 2015-2020, the dominant (majority) land use and its percentage of the field's area have been used to assigned land use each individual field polygon (e.g 'maj19' and 'pct19'). This summary information for each field are assigned, including; a six-year crop rotation string, a crop summary string, a continuous corn count, a mixed land use count, and a general land use class.

### Credits

USDA/ARS

### Use limitations

In no event shall the creators, custodians, or distributors of this information be liable for any

damages arising out of its use ( or the inability to use it).

### Extent

There is no extent for this item.

### Scale Range

**Maximum (zoomed in)** 1:5,000

**Minimum (zoomed out)** 1:150,000,000

## ArcGIS Metadata ►

### Topics and Keywords ►

**THEMES OR CATEGORIES OF THE RESOURCE** farming, planning Cadastre, geoscientificInformation, boundaries

\* **CONTENT TYPE** Downloadable Data  
**EXPORT TO FGDC CSDGM XML FORMAT AS RESOURCE DESCRIPTION** No

**PLACE KEYWORDS** Upper Mississippi River Basin, UMRB

**TEMPORAL KEYWORDS** 2015 - 2020 NASS Crop Data Layer

**THEME KEYWORDS** USA, United States Department of Agriculture (USDA), geoscientificInformation, Farming, boundaries, Field Boundaries, farming, Digitizing, USDA, conservation planning

*Hide Topics and Keywords ▲*

### Citation ►

**TITLE** ACPF Six-year Land Use by field: Upper Mississippi River Basin 2015-2020  
**PUBLICATION DATE** 2014-01-01

**EDITION** 1

**PRESENTATION FORMATS** digital table  
**FGDC GEOSPATIAL PRESENTATION FORMAT** tabular digital data

*Hide Citation ▲*

### Citation Contacts ►

**RESPONSIBLE PARTY**  
**ORGANIZATION'S NAME** USDA, Agricultural Research Service, National Laboratory of Agriculture and the Environment  
**INDIVIDUAL'S NAME** David James  
**CONTACT'S POSITION** GIS  
**CONTACT'S ROLE** originator

*Hide Citation Contacts ▲*

### Resource Details ►

**DATASET LANGUAGES** English (UNITED STATES)

DATASET CHARACTER SET utf8 - 8 bit UCS Transfer Format

STATUS completed

SPATIAL REPRESENTATION TYPE \* text table

\* PROCESSING ENVIRONMENT Version 6.2 (Build 9200) ; Esri ArcGIS 10.8.1.14362

CREDITS

USDA/ARS

ARCGIS ITEM PROPERTIES

\* NAME UMRB\_ACPFFields\_LandUse2015\_2020

\* LOCATION file:///\\CURLEW\D\$\ACPFproc\ADCcontributions\UMRB\ACPF\_UMRB.gdb

\* ACCESS PROTOCOL Local Area Network

[Hide Resource Details ▲](#)

## Extents ►

EXTENT

DESCRIPTION

Upper Mississippi River Basin, HUC07

GEOGRAPHIC EXTENT

GEOGRAPHIC DESCRIPTION

GEOGRAPHIC IDENTIFIER

VALUE Upper Mississippi River Basin

DESCRIPTION CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

\* WEST LONGITUDE -56253.742200

\* EAST LONGITUDE -43006.013700

\* SOUTH LATITUDE 2515912.979200

\* NORTH LATITUDE 2531084.223400

\* EXTENT CONTAINS THE RESOURCE Yes

[Hide Extents ▲](#)

## Resource Points of Contact ►

POINT OF CONTACT

INDIVIDUAL'S NAME David James

ORGANIZATION'S NAME USDA, Agricultural Research Service, National Laboratory of Agriculture and the Environment

CONTACT'S ROLE point of contact

CONTACT INFORMATION ►

PHONE

VOICE (515) 294-6858

ADDRESS

TYPE postal

DELIVERY POINT 2110 University Blvd.

CITY Ames

ADMINISTRATIVE AREA Iowa

POSTAL CODE 50011

COUNTRY US  
 E-MAIL ADDRESS david.james@ars.usda.gov

[Hide Contact information ▲](#)

[Hide Resource Points of Contact ▲](#)

## Resource Maintenance ►

RESOURCE MAINTENANCE  
 UPDATE FREQUENCY not planned

[Hide Resource Maintenance ▲](#)

## Resource Constraints ►

LEGAL CONSTRAINTS

LIMITATIONS OF USE

In no event shall the creators, custodians, or distributors of this information be liable for any damages arising out of its use ( or the inability to use it).

CONSTRAINTS

LIMITATIONS OF USE

In no event shall the creators, custodians, or distributors of this information be liable for any damages arising out of its use ( or the inability to use it).

[Hide Resource Constraints ▲](#)

## Spatial Reference ►

ARCGIS COORDINATE SYSTEM

- \* TYPE Projected
- \* GEOGRAPHIC COORDINATE REFERENCE GCS\_North\_American\_1983
- \* PROJECTION USA\_Contiguous\_Albers\_Equal\_Area\_Conic\_USGS\_version
- \* COORDINATE REFERENCE DETAILS

PROJECTED COORDINATE SYSTEM

WELL-KNOWN IDENTIFIER 102039

X ORIGIN -16901100

Y ORIGIN -6972200

XY SCALE 10000

Z ORIGIN -100000

Z SCALE 10000

M ORIGIN -100000

M SCALE 10000

XY TOLERANCE 0.001

Z TOLERANCE 0.001

M TOLERANCE 0.001

HIGH PRECISION true

LATEST WELL-KNOWN IDENTIFIER 102039

WELL-KNOWN TEXT PROJCS

["USA\_Contiguous\_Albers\_Equal\_Area\_Conic\_USGS\_version",GEOGCS

["GCS\_North\_American\_1983",DATUM["D\_North\_American\_1983",SPHEROID

["GRS\_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT

["Degree",0.0174532925199433]],PROJECTION["Albers"],PARAMETER

["False\_Easting",0.0],PARAMETER["False\_Northing",0.0],PARAMETER["Central\_Meridian",-

96.0],PARAMETER["Standard\_Parallel\_1",29.5],PARAMETER  
 ["Standard\_Parallel\_2",45.5],PARAMETER["Latitude\_Of\_Origin",23.0],UNIT  
 ["Meter",1.0],AUTHORITY["Esri",102039]]

[Hide Spatial Reference ▲](#)

## Data Quality ►

SCOPE OF QUALITY INFORMATION ►  
 RESOURCE LEVEL attribute

[Hide Scope of quality information ▲](#)

[Hide Data Quality ▲](#)

## Distribution ►

DISTRIBUTION FORMAT  
 VERSION v2010-2019  
 \* NAME File Geodatabase Table

[Hide Distribution ▲](#)

## Fields ►

DETAILS FOR OBJECT UMRB\_ACPFFields\_LandUse2015\_2020 ►

\* TYPE Table  
 \* ROW COUNT 2493249

DEFINITION  
 Agricultural land use by field, Iowa

DEFINITION SOURCE  
 Originator

FIELD OBJECTID ►

\* ALIAS OBJECTID  
 \* DATA TYPE OID  
 \* WIDTH 4  
 \* PRECISION 0  
 \* SCALE 0

FIELD DESCRIPTION  
 Internal feature number.

DESCRIPTION SOURCE  
 Esri

DESCRIPTION OF VALUES  
 Sequential unique whole numbers that are automatically generated.

[Hide Field OBJECTID ▲](#)

## FIELD FBndID ►

- \* ALIAS FBndID
- \* DATA TYPE String
- \* WIDTH 255
- \* PRECISION 0
- \* SCALE 0

## FIELD DESCRIPTION

A unique field identifier constructed by concatenating the HUC12 identification code and a sequential number.

## DESCRIPTION SOURCE

Originator

*Hide Field FBndID ▲*

## FIELD GenLU ►

- \* ALIAS GenLU
- \* DATA TYPE String
- \* WIDTH 255
- \* PRECISION 0
- \* SCALE 0

## FIELD DESCRIPTION

General Land Use is assigned to each field based upon the majority land use, as derived from the NASS Cropland Data Layer, for each of six years, 2015-2020. The use codes are concatenated over the period into a rotation string, e.g. 'CBCCCB', and evaluated based on the distribution of uses, majority percent of the field, and occurrence of continuous corn. The GenLU field is concatenated from both the PrimeName and OneName fields in the ACPF land use rasters (e.g. WSCDL2020)

## DESCRIPTION SOURCE

USDA/ARS

*Hide Field GenLU ▲*

## FIELD AgLandUse ►

- \* ALIAS AgLandUse
- \* DATA TYPE String
- \* WIDTH 255
- \* PRECISION 0
- \* SCALE 0

## FIELD DESCRIPTION

Agricultural Land Use is assigned to each field based upon the majority land use, as derived from the NASS Cropland Data Layer, for each of six years, 2015-2020. The use codes are concatenated over the period into a rotation string, e.g. 'CBCCCB', and evaluated based on the distribution of uses, majority percent of the field, and occurrence of continuous corn. The AgLandUse should be considered a slightly more detailed description of land use than GenLU, as it aggregates only PrimeName values to form its result.

## DESCRIPTION SOURCE

USDA/ARS

*Hide Field AgLandUse ▲*

## FIELD CropRotatn ►

- \* ALIAS CropRotatn

- \* DATA TYPE String
- \* WIDTH 255
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

The dominant (majority) land use codes are concatenated over the six-year period into acrop rotation string, e.g. 'CBCCCB'. The land use codes (ROTVAL) are:

C-Corn,  
 B-Soybean,  
 E-Sugarbeets,  
 F-Forest,  
 p-Grapes,  
 G-Sorghum,  
 I-Idle,  
 J-Rice,  
 L-Double crops,  
 N-Cotton,  
 P-Pasture,  
 R-Other,  
 T-Water,  
 W-Wheat,  
 U-Developed,  
 X-Barren, clouds, no data,  
 a-Nuts,  
 d-Fruit,  
 g-SmallGrains,  
 m-Legumes,  
 o -OilSeed,  
 q-Orchards,  
 v-Vegetables

DESCRIPTION SOURCE  
 USDA ARS

[Hide Field CropRotatn ▲](#)

#### FIELD CropSumry ►

- \* ALIAS CropSumry
- \* DATA TYPE String
- \* WIDTH 255
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

The Cropsumry field concatenates the number of occurances of a summary land use value (ROTVAL) with the summary value to represent a summary of land use, such that;  
 C3CB - 3 years corn, 3 years soybean  
 C2B1P3 - 2 years corn, 1 year soybean, 3 years pasture/grass/hay

DESCRIPTION SOURCE  
 USDA/ARS

[Hide Field CropSumry ▲](#)

#### FIELD CCCount ►

- \* ALIAS CCCount
- \* DATA TYPE String

- \* WIDTH 255
- \* PRECISION 0
- \* SCALE 0

## FIELD DESCRIPTION

Continuous Corn Count. The number of occurrences of 'CC' in the crop rotation string, e.g. 2/6, would suggest that there are 2 occurrences of 'CC' in the six years of the rotation. Both of the following conditions would exhibit 2/6...

CCCBCB  
CCBCCB

## DESCRIPTION SOURCE

USDA/ARS

[Hide Field CCCount ▲](#)

## FIELD MixCount ►

- \* ALIAS MixCount
- \* DATA TYPE String
- \* WIDTH 255
- \* PRECISION 0
- \* SCALE 0

## FIELD DESCRIPTION

A count of the number of years where the dominant land use percent of the field falls below 75%. Referenced as the number of years mixed out of all years, e.g. 2/6 is two years out of six.

## DESCRIPTION SOURCE

USDA/ARS

[Hide Field MixCount ▲](#)

[Hide Details for object UMRB\\_ACPFFields\\_LandUse2015\\_2020 ▲](#)

## OVERVIEW DESCRIPTION ►

## ENTITY AND ATTRIBUTE OVERVIEW

The land use assigned to the fields in this table are derived from the NASS Crop Data Layer for each of the six years in the period of record. For the majority assignment (e.g. maj19), the field is assigned as per the VALUE field below, which is the original NASS CDL value. For the summary fields, the crop rotation string (CropRotatn) and the crop summary string (CropSumry).

[Hide Overview Description ▲](#)

[Hide Fields ▲](#)

**Metadata Details ►**

METADATA LANGUAGE English (UNITED STATES)

METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format

SCOPE OF THE DATA DESCRIBED BY THE METADATA dataset

SCOPE NAME \* dataset



\* LAST UPDATE 2021-09-08

#### ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0

STANDARD OR PROFILE USED TO EDIT METADATA NAP

METADATA STYLE North American Profile of ISO19115 2003

CREATED IN ARCGIS FOR THE ITEM 2021-09-07 09:53:10

LAST MODIFIED IN ARCGIS FOR THE ITEM 2021-09-08 06:52:29

#### AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes

LAST UPDATE 2021-09-08 06:52:29

#### ITEM LOCATION HISTORY

ITEM COPIED OR MOVED 2015-04-13 08:37:18

FROM D:\Data\ACPF\ACPF\_Database\ACPF\_MetaData\FldBndy\_meta\ACPF\_FieldBndy\_meta

To \\NLAE08\Data\EDF\ACPF\ACPF\_MetaData\FldBndy\_meta\ACPF\_FieldBndy\_meta (1)

[Hide Metadata Details ▲](#)

## Metadata Contacts ►

#### METADATA CONTACT

INDIVIDUAL'S NAME David James

ORGANIZATION'S NAME USDA, Agricultural Research Service, National Laboratory of Agriculture and the Environment

CONTACT'S ROLE point of contact

#### CONTACT INFORMATION ►

##### PHONE

VOICE (515) 294-6858

##### ADDRESS

TYPE postal

DELIVERY POINT 2110 University Blvd.

CITY Ames

ADMINISTRATIVE AREA Iowa

POSTAL CODE 50011

COUNTRY US

E-MAIL ADDRESS david.james@ars.usda.gov; dejames@iastate.edu

[Hide Contact information ▲](#)

[Hide Metadata Contacts ▲](#)

## Metadata Maintenance ►

#### MAINTENANCE

UPDATE FREQUENCY not planned

[Hide Metadata Maintenance ▲](#)

## Metadata Constraints ►

SECURITY CONSTRAINTS

CLASSIFICATION unclassified  
CLASSIFICATION SYSTEM None

ADDITIONAL RESTRICTIONS

None

*Hide Metadata Constraints ▲*

**Thumbnail and Enclosures ►**

ENCLOSURE

ENCLOSURE TYPE File  
DESCRIPTION OF ENCLOSURE original metadata  
ORIGINAL METADATA DOCUMENT, WHICH WAS TRANSLATED yes  
SOURCE METADATA FORMAT fgdc

*Hide Thumbnail and Enclosures ▲*

**FGDC Metadata (read-only) ▼**