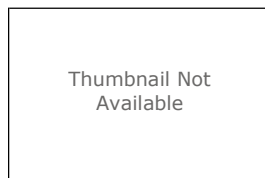


ACPF Six-year Land Use by field: Iowa

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, Iowa, 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, 2014-2019, 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 'maj18' and 'pct18'). 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

There are no credits for this item.

Use limitations

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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, planningCadastre, geoscientificInformation, boundaries

*** CONTENT TYPE** Downloadable Data

EXPORT TO FGDC CSDGM XML FORMAT AS RESOURCE DESCRIPTION No

PLACE KEYWORDS IA, Iowa

TEMPORAL KEYWORDS 2010 - 2019 Aerial photography, 2010 - 2019 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: Iowa

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 David James, USDA, Agricultural Research Service, National Laboratory of Agriculture and the Environment

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 10.7.1.11595

ARC GIS ITEM PROPERTIES

* NAME IA_ACPFFields_LandUse2014_2019
* LOCATION file:///\\ARSIAAMN4-216C\E\$\Data\ACPF\IA_byFieldAgriculture\Landuse\ADCcontributions\IowaFieldBoundaries.gdb
* ACCESS PROTOCOL Local Area Network

[Hide Resource Details ▲](#)

Extents ►

EXTENT
DESCRIPTION
Iowa

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE
WEST LONGITUDE -91.765934
EAST LONGITUDE -91.577703
SOUTH LATITUDE 42.931001
NORTH LATITUDE 43.042004
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

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[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

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CONSTRAINTS

LIMITATIONS OF USE

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[Hide Resource Constraints ▲](#)

Geoprocessing history ►

PROCESS

PROCESS NAME

DATE 2020-03-03 14:42:36

TOOL LOCATION c:\program files (x86)\arcgis\desktop10.7\ArcToolbox\Toolboxes\Data Management Tools.tbx\Append

COMMAND ISSUED

Append IAwest IA_ACPFFields2019 TEST # #

INCLUDE IN LINEAGE WHEN EXPORTING METADATA **No**

PROCESS

PROCESS NAME

DATE **2020-09-04 10:09:58**

TOOL LOCATION **c:\program files (x86)\arcgis\desktop10.7\ArcToolbox\Toolboxes\Data Management Tools.tbx\CopyRows**

COMMAND ISSUED

CopyRows E:\Data\ACPF\IA_byFieldAgriculture\Landuse\ACPF2019_State_Fields.gdb\IA_ACPFfields2019
E:\Data\ACPF\IA_byFieldAgriculture\Landuse\ACPF2019_State_Fields.gdb\IA_ACPF_LU2010_2019 #

INCLUDE IN LINEAGE WHEN EXPORTING METADATA **No**

PROCESS

PROCESS NAME

DATE **2020-09-04 10:11:04**

TOOL LOCATION **c:\program files (x86)\arcgis\desktop10.7\ArcToolbox\Toolboxes\Data Management Tools.tbx>DeleteField**

COMMAND ISSUED

DeleteField E:\Data\ACPF\IA_byFieldAgriculture\Landuse\ACPF2019_State_Fields.gdb\IA_ACPF_LU2010_2019
OBJECTID_1;FBndID_1;Acres_1;isAG_1;Shape_Length;Shape_Area

INCLUDE IN LINEAGE WHEN EXPORTING METADATA **No**

PROCESS

PROCESS NAME

DATE **2020-09-12 10:02:15**

TOOL LOCATION **c:\program files (x86)\arcgis\desktop10.7\ArcToolbox\Toolboxes\Data Management Tools.tbx>AddIndex**

COMMAND ISSUED

AddIndex IA_ACPF_LU2010_2019 FBndID Fbidx UNIQUE NON_ASCENDING

INCLUDE IN LINEAGE WHEN EXPORTING METADATA **No**

PROCESS

PROCESS NAME

DATE **2020-12-01 10:26:07**

TOOL LOCATION **c:\program files (x86)\arcgis\desktop10.7\ArcToolbox\Toolboxes\Data Management Tools.tbx>DeleteField**

COMMAND ISSUED

DeleteField E:\Data\ACPF\IA_byFieldAgriculture\Landuse\ADCContributions\IowaFieldBoundaries.gdb\IA_ACPFfields_LandUse2014_2019
Acres;isAG;maj10;pct10;maj11;pct11;maj12;pct12;maj13;pct13;maj14;pct14;maj15;pct15;maj16;pct16;maj17;pct17;maj18;pct18;maj19;pct19

INCLUDE IN LINEAGE WHEN EXPORTING METADATA **No**

[Hide Geoprocessing history ▲](#)

Distribution ►

DISTRIBUTION FORMAT

NAME **Table**

VERSION **v2010-2019**

[Hide Distribution ▲](#)

Fields ►

DETAILS FOR OBJECT **IA_ACPFfields_LandUse2014_2019 ►**

* TYPE **Table**

* ROW COUNT **717938**

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, 2012-2017. 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. WSCDL2017)

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, 2012-2017. 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 a crop 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 occurrences 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 CCount ▶

* ALIAS CCount
 * 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...

CCBCB
 CCBCCB

DESCRIPTION SOURCE
 USDA/ARS

[Hide Field CCount ▲](#)

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 IA_ACPFFields_LandUse2014_2019 ▲](#)

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. maj15), 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

METADATA IDENTIFIER 278E7670-AD29-4034-AF74-A99BD26918BC

SCOPE OF THE DATA DESCRIBED BY THE METADATA dataset
 SCOPE NAME *dataset

* LAST UPDATE 2020-12-01

ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0
 METADATA STYLE North American Profile of ISO19115 2003
 STANDARD OR PROFILE USED TO EDIT METADATA NAP

CREATED IN ARCGIS FOR THE ITEM 2020-12-01 10:10:52
 LAST MODIFIED IN ARCGIS FOR THE ITEM 2020-12-01 10:38:12

AUTOMATIC UPDATES
 HAVE BEEN PERFORMED Yes
 LAST UPDATE 2020-12-01 10:29:10

[Hide Metadata Details ▲](#)

Metadata Contacts ▶

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[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 ▲](#)

FGDC Metadata (read-only) ▼