Common Land Unit (CLU)

INFORMATION SHEET
June 2010

What is a Common Land Unit (CLU)?

A CLU is an individual contiguous farming parcel which is the smallest unit of land that has:

1. A permanent, contiguous boundary
2. Common land cover and land management
3. A common owner, and/or
4. A common producer association.

Isn't that just a farmer's field?

A CLU is closely related to a farm field by definition. The Farm Service Agency (FSA) Handbook for Acreage Compliance Determinations Revision 15 (2-CP) states a field is a tract separated by permanent boundaries such as:

1. Fences
2. Permanent waterways
3. Woodlands
4. Croplines not subject to change because of farming practices, or
5. Other similar features.

What is a CLU used for?

USDA FSA digitizes CLU into Geographic Information System (GIS) shapefiles or geodatabases and populates the associated attribute data.

There are many uses for CLUs, including but not limited to:

1. Providing a link between tabular farm records and a map or image of the land
2. Using GIS for acreage calculations
3. Replacing paper maps with digital images that can be easily updated and can produce high quality prints whenever necessary
4. Drawing crop boundaries to better define or use with other data, such as:
    a. Crop patterns
    b. Subdivisions
    c. Conservation Plans
5. Creating a central database for land unit boundaries and linking it to customers and other data sources,
6. Speeding up the process for implementing disaster payment and other specialized systems.

Yes, but what are the benefits?

CLUs:

1. Provide timely and accurate program related data for more efficient and successful program implementation and delivery
2. Improve communication and data flow between Service Center Agencies and with farmers or other customers
3. Improve communication between geospatial software applications by providing:
    a. Common set of data elements to describe every CLU
    b. Common identifiers for each unit of land, and
    c. Common framework for locating data in relation to the ground.
4. Facilitate the creation of shared data warehouses for land related data
5. Provide for the incorporation of data from outside sources, including
    a. Census or other demographic data
    b. Satellite imagery
    c. GPS data
    d. Elevation data
    e. NOAA or other data sources
6. Provide for more consistent and more accurate land measurements, such as
    a. Field acreage
    b. Riparian buffers
    c. Wetland areas
7. Provides the ability to summarize agricultural information at the county, region, State, congressional district, or national level
8. Encourage the establishment of agreements with Federal agencies to
    a. Facilitate data exchange, to
    b. Reduce resource and acquisition costs

How were CLUs developed?

Originally, CLUs were digitized by 13 FSA digitizing centers in 7 states, and contracts with data conversion companies. CLUs were digitized on 1980s and 1990s National Digital Orthophoto Program (NDOP) imagery, using legacy photo-maps as source documents.

Who maintains the CLU data?

There are data managers at the national, State, and local level. Generally speaking, the local County Service Center employees are the maintainers of the CLU data for their area.

How often is CLU data maintained?

CLU data is continuously maintained by USDA county-based Field Service Centers through interaction with producers and with submissions of new imagery via the National Agriculture Imagery Program (NAIP).

NAIP?

NAIP is a program to:

1. Acquire peak growing season "leaf on" imagery, and
2. Deliver this imagery to USDA county Service Centers in order to
    a. Maintain the common land unit (CLU) boundaries and
    b. Assist with a multitude of other farm programs.

More information on NAIP can be obtained from the APFO website at http://www.apfo.usda.gov/.

What format are the CLUs in?

The CLU is maintained in ArcSDE geodatabase format and stored as both shapefiles and geodatabases. The UTM, NAD83 coordinate system is used for both. The different formats are used to meet various program and application needs of the Service Center Agencies.

Why GIS for CLUs?

The principal reasons are to enable a quick, automated method for calculating acreage and for a georeferenced, graphical view of farm records. In GIS, there is a plethora of other information that can be associated with CLUs. By utilizing GIS, high quality analysis of CLUs can be accomplished; thus better tracking and decision making can be made. Some associated layers could include but are not limited to:

1. High Risk Lands
2. Wetlands
3. Land Cover
4. Conservation Practices
5. Soils
6. Roads
7. Hydrography, and of course
8. Orthoimagery

What attribute data is associated with CLUs?

Some of the attributes include:

1. Shape
2. Area
3. Perimeter
4. Field ID
5. State FIPS
6. County FIPS
7. Tract
8. Farm
9. CLU Number
10. Calculated Acres
11. Highly Erodible Land Code
12. CLUID
13. CLU Land Classification Code
14. Comments

Can I get a copy of the data?

CLU is not in the public domain. Section 1619 of the Food, Conservation, and Energy Act of 2008 (Farm Bill), only allows the sharing of this data to individuals or organizations (governmental or non-governmental) certified by FSA as working in cooperation with the Secretary of Agriculture by providing assistance to USDA programs and requiring access to CLU data to complete that work.

Do I need special software to view the CLU data?

Most GIS software can view CLU shapefiles. Some GIS viewing software is free for download at http://www.apfo.usda.gov/. This list is provided for convenience; USDA-FSA-APFO does not support or endorse these products or services.

Who do I contact for more information?

1. For APFO sales and product information, contact USDA-FSA-APFO at 2222 W 2300 S, Salt Lake City UT, 84119-2020, call (801)844-2922, or visit http://www.apfo.usda.gov.
2. For further information contact GIS Specialists, Zack Adkins, at (801)844-2925 or David Davis at (801)844-2933.