

USDA/NASS Geospatial Products: The Cropland Data Layer

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NASS Overview

Provider of timely, accurate, and useful statistics in service to U.S. agriculture

NASS - Data and Statistics - Microsoft Internet Explorer

Address: http://www.nass.usda.gov/Data_and_Statistics/index.asp

USDA National Agricultural Statistics Service

The 2002 Census of Agriculture is the most comprehensive source of statistics portraying our nation's agriculture

Home About NASS Newsroom Publications Data and Statistics Census Surveys Help Contact Us

You are here: Home / Data and Statistics

Data and Statistics

Quick Stats (Agricultural Statistics Data Base)

NASS publishes U.S., state, and county level agricultural statistics for many commodities and data series. Quick Stats offers the ability to query by commodity, state(s) and year(s), providing the most up-to-date statistics including all revisions. The query dataset can be downloaded for easy use in your database or spreadsheet.

Query our Quick Stats Data Base

Additional Crops County Resources

Maps of crops county estimates for acreage and yield are available from NASS as both CSV data files and maps.

County data from Quick Stats data is also available in pre-extracted data sets by year and by crop.

Census of Agriculture

To query Census of Agriculture data, choose from the Census years below. To view the Census publications, click here:

Data Queries for 2002, select below:

Select a Census Query

Data Queries for 1997, 1992, 1987

Interactive Data

NASS provides a variety of tools for interacting with our Census datasets.

Interactive Statistical Maps Interactive Census Maps for 2002 Census Highlights

Table Lens Table Lens Application for 1997 Census Data

Last modified: 12/30/05

NASS Home | USDA.gov | FEDSTATS | Economics Statistics System (ESS) | Site Map
FOIA | Accessibility Statement | Privacy Policy | Non-Discrimination Statement | Information Quality | FirstGov | White House

2001 Wildlife Damage Survey

7.7 Percent of Crop Value Lost to Deer and Geese

Maryland farmers lost \$17.2 million of corn, soybeans and wheat to deer or geese during 2001, translates to Maryland farmers losing 7.7 percent of the crop value to deer and geese. Soybeans account for the greatest economic loss, totaling \$9.1 million, 11 percent. Corn losses were \$6.6 million, 5.8 percent and wheat \$1.3 million, 5.6 percent. Deer damage resulted in losses of \$13.6 million, 6.1 percent, while geese losses were \$3.6 million, 1.6 percent.

Production losses totaled 6.0 million bushels. Corn losses were 3.2 million bushels, soybean losses are 2.2 million bushels and wheat accounted for 0.6 million bushels. Production losses to deer were 4.7 million bushels and geese 1.3 million bushels.

In terms of yield, losses to deer were most severe in Central and Western Maryland, while geese damage greater on the Eastern Shore. Corn yield losses of 9.6 bushels per acre and 7.4 bushels per acre were reported in Central and Western Maryland, respectively. The Lower Eastern Shore reported the highest soybean yield of 6.1 bushels per acre.

Sixty-two percent of farms reported deer or geese damage to one or more crops. Damage was reported on 58 percent of farms raising corn, 58 percent of farms growing soybeans and 27 percent of farms with wheat.

Maryland 2001 Crop Loss from Deer

Region	Crop	Acres Harvested	Harvested Yield (bushels)	Average Yield Loss (bushels)	Production Loss (bu)	Economic Loss (\$)
Western Maryland (except Del.)	Corn	9,500	124,919	7.4	40,100	83
	Soybeans	300	36.7	9.9	1,203,250	2,413
	Wheat	200	45.2	2.0	460	1
Central Maryland	Corn	124,200	98.4	3.9	360,750	1,479
	Soybeans	92,800	34.0	3.3	126,250	399
	Wheat	38,300	63.3	3.3	146,200	299
Southern Maryland	Corn	29,800	132.9	4.9	146,200	299
	Soybeans	43,200	39.0	3.3	142,260	394
	Wheat	16,900	57.0	0.9	14,400	16
Upper Shore	Corn	157,200	159.2	5.1	800,700	1,241
	Soybeans	232,000	39.8	2.4	156,800	2,232
	Wheat	88,800	64.0	1.1	99,150	213

USDA NEWS RELEASE

NATIONAL AGRICULTURAL STATISTICS SERVICE
United States Department of Agriculture - Washington, DC 20250
Ag Statistics Hotline: (800) 727-9540 • www.nass.usda.gov

Contact: Ellen Dougherty, (202) 690-8122
Jeff Geuder, (202) 720-2127

USDA FORECASTS RECORD-SETTING CORN CROP FOR 2007

Washington, Aug. 10, 2007 – U.S. history in 2007, according to the history of the National Agricultural Statistics Service, is that the U.S. produced 13.1 billion bushels, 10.6 percent more than in 2006. Based on conditions as of August 10, 2007, the U.S. is expected to produce 13.1 billion bushels, up 3.7 bushels from last year. The U.S. is expected to produce 160.4 bushels per acre, up 3.7 bushels from last year. Yield forecasts are higher than in 2006. Delta. Meanwhile, hot, dry conditions in the Southeast and eastern Corn Belt, Ohio Valley...

WISCONSIN AGRICULTURAL STATISTICS SERVICE
P.O. Box 8934 Madison, WI 53708-8934
In cooperation with WI Department of Agriculture, Trade and Consumer Protection

2002 Dairy Producer Opinion Survey

November 2002

Wisconsin Milk Production to Recover

Milk production is expected to increase in Wisconsin during the next five years according to a survey conducted by the Wisconsin Agricultural Statistics Service. This statewide survey of producers asked for their plans with the assumption that milk prices for the next five years will be at the same level as the past five years. The survey was conducted during May and June.

Based on the survey, 60 percent of producers expect to keep the same herd size, 20 percent plan to increase herd size, and 20 percent intend to discontinue milking by 2007. Actual results will depend on future milk prices, input prices, financing availability, crop yields, and other factors.

The number of herds projected for 2007 shows that the diversity of small to large herds will continue. The most prevalent herd size will remain at 50 to 99 cows.

2002 Census of Agriculture - USG Interactive Mapping - United States - Microsoft Internet Explorer

National Agricultural Statistics Service 2002 Census of Agriculture

United States | All data items are from Chapter 2 - Table 1. Area Summary Highlights: 2002 Selected crops harvested - Land in orchards (acres)

State: United States - County Level | Data Item: Selected crops harvested - Land in orchards (acres)

United States Total: 5,330,439

State Total: _____

County Total: _____

Download data as CSV | XML | PDF

Help | Print | Return to

Legend

Scale: National | Zero or Data Withheld <= 20,000

(Changes the data range based on National or State level)

Comparisons: 6 | 20,001 to 40,000 | 40,001 to 60,000 | 60,001 to 80,000 | 80,001 to 100,000 | 100,001 >=

Color: Green

Source: USDA-NASS 2002 Census of Agriculture © USDA-NASS 2005-2006

Navigate: Mouse-over a specific state/county to view the state/county level data. Right-click to zoom (option-click for MAC users). Hold the Alt key and click+drag to pan. For additional assistance with this application, click here to view the support page.

All Milk Price, Wisconsin Annual Average, 1985 - 2002 1/

Wisconsin Dairy Herds by Herd Size

Milk cow herd size	May 2002 herds	May 2007 herds (projected) 1/	Change 2007/2002
1-29	2,800	1,440	-45
30-49	4,700	3,440	-27
50-99	7,400	5,600	-24
100-199	1,900	2,080	+10
200-499	700	600	-29
500+	200	440	+120
Total	17,500	15,900	-20

1/ The May 2007 projection is based on farmers' opinions May-June 2002, with the assumption that milk prices for the next five years will be at the same level as the past five years.

Wisconsin Dairy Farmer Plans for May 2007 1/ by Herd Size

Herds	Keep same herd size	Increase herd size	Discontinue milking
Number	47	17	58
Percent	71	9	20
2,600	65	19	18
4,700	53	37	10
7,000	53	59	8
200	22	78	0
17,500	62	29	20

1/ The May 2007 projection is based on farmers' opinions May-June 2002, with the assumption that milk prices for the next five years will be at the same level as the past five years.

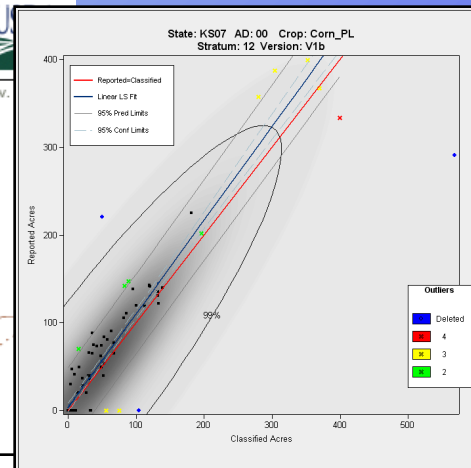
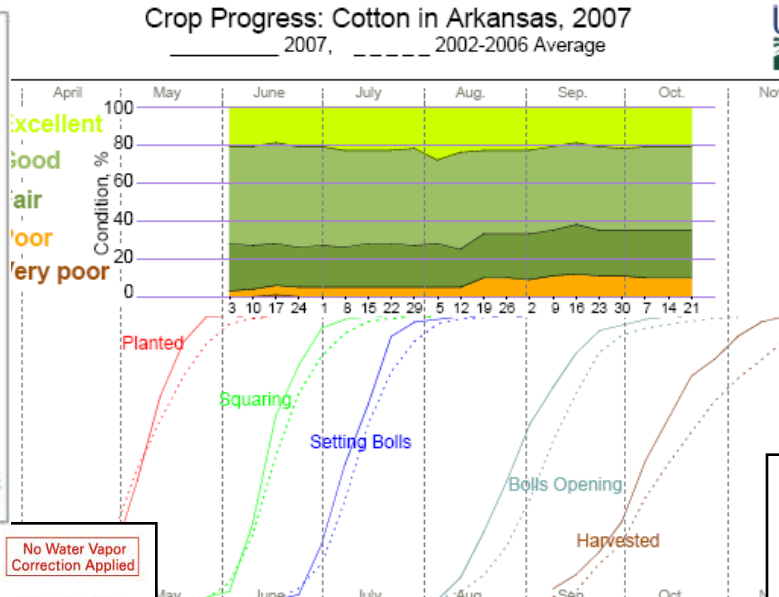
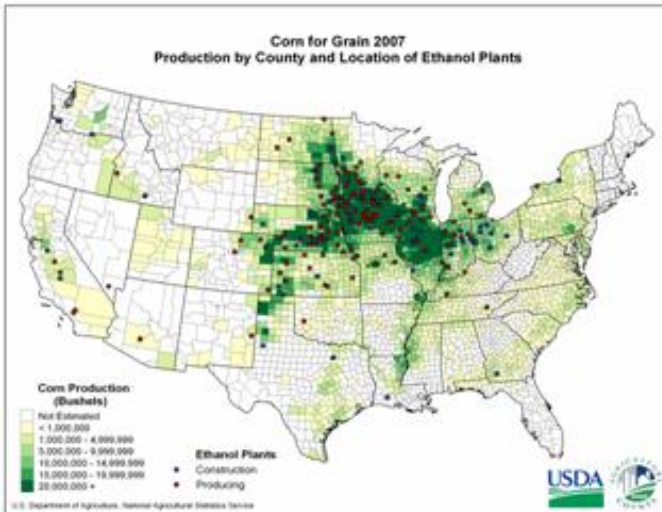
Percent of Herds by Size Group 2007 Projection

1-29
30-49
50-99
100-199
200-499
500+

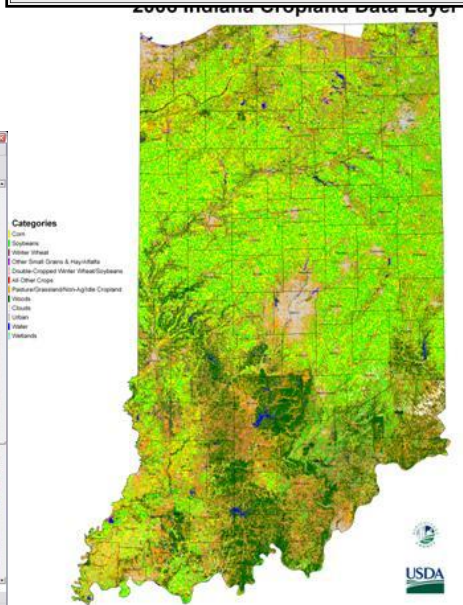
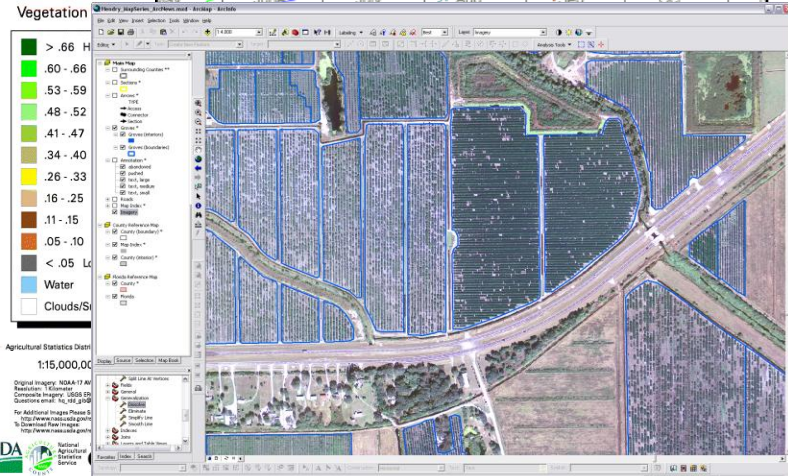
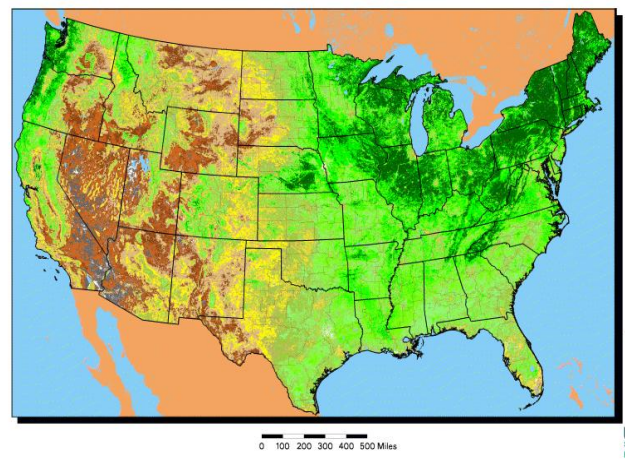
Research and Development Division

Geospatial Information Branch

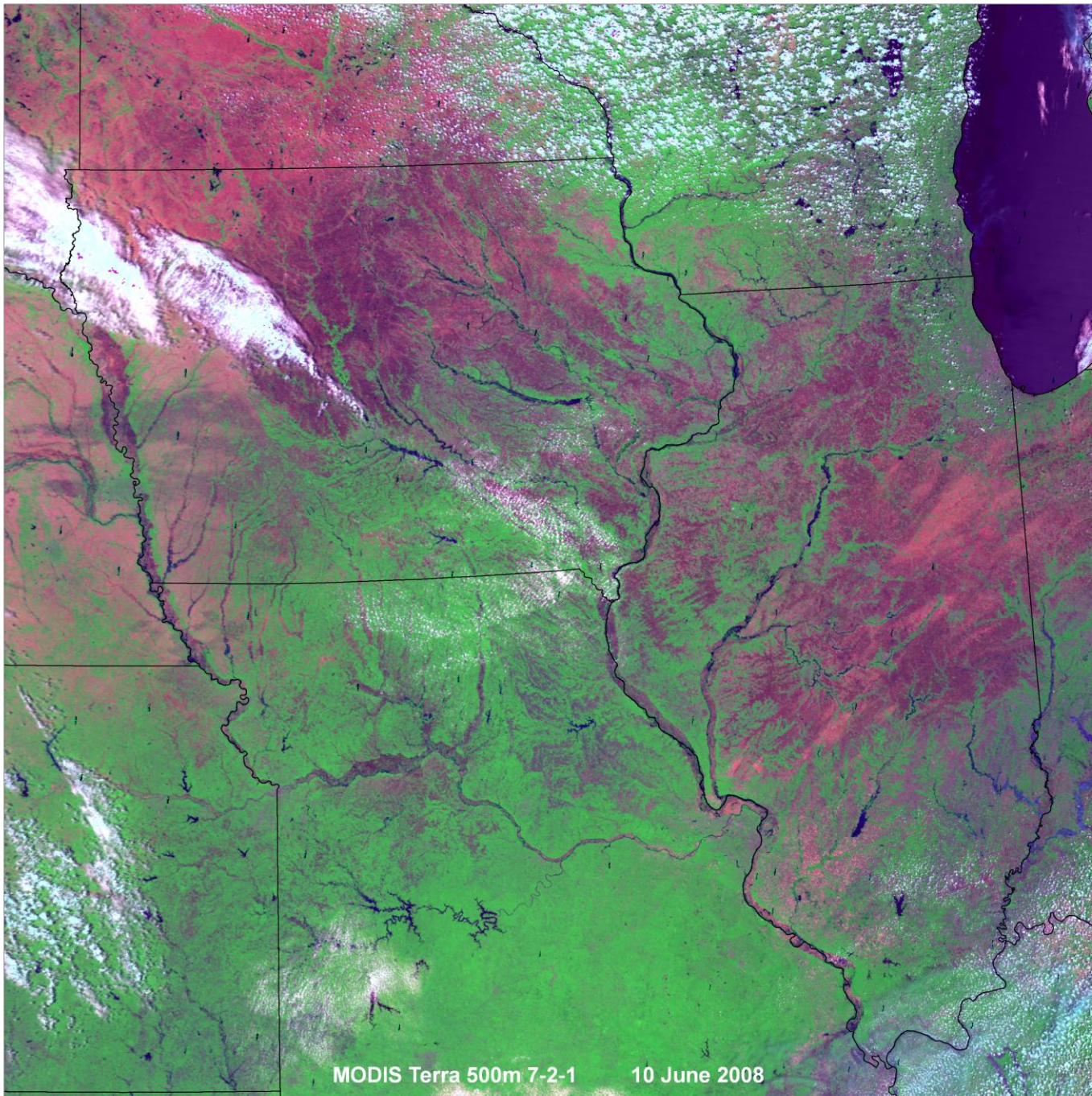
Spatial Analysis Research



Conterminous U.S. Vegetation Condition - 2007
Period 33 (7/31 - 8/13)



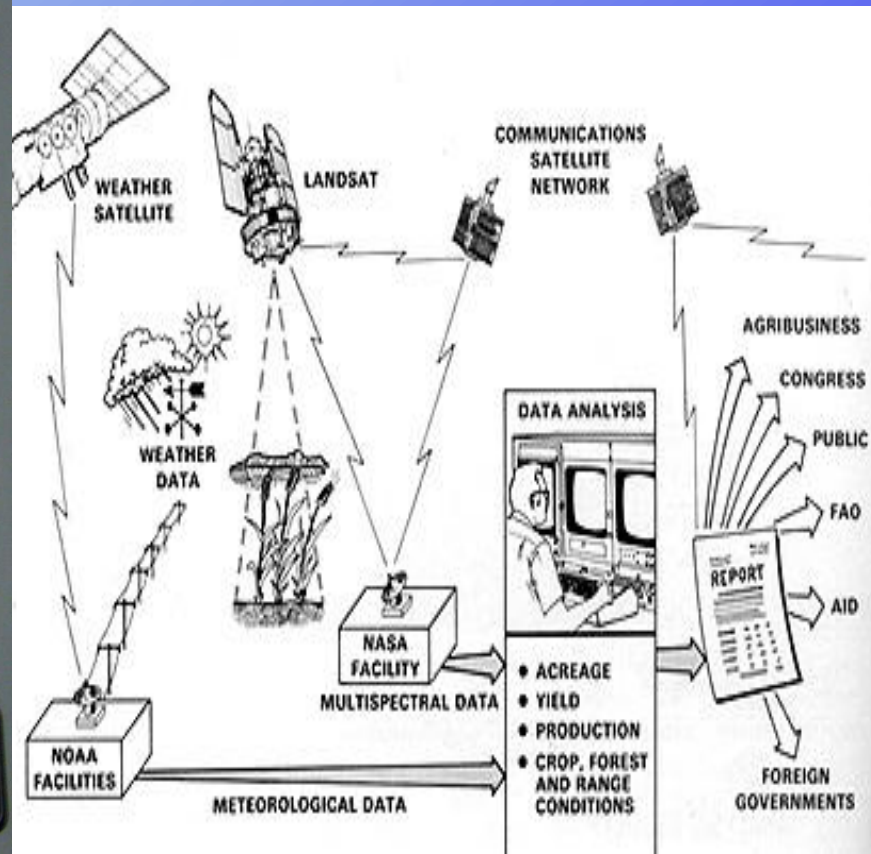
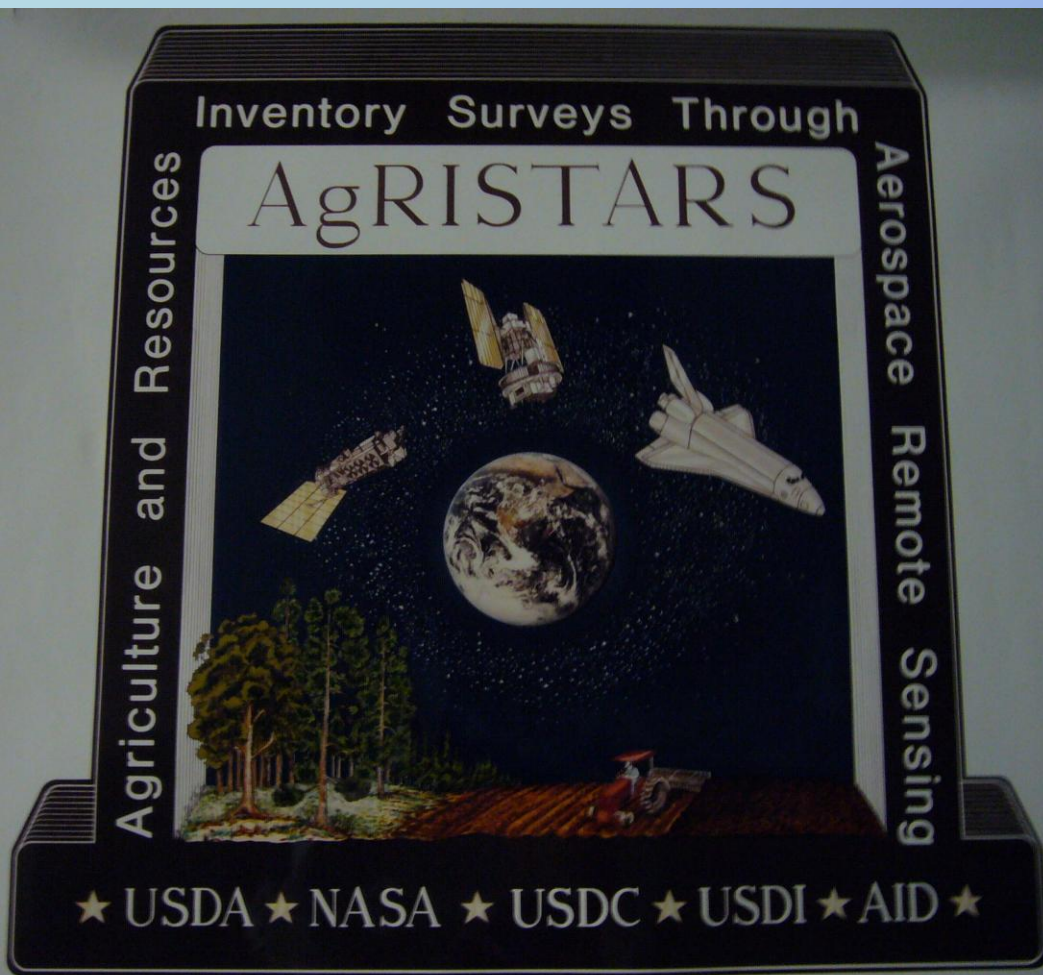
MODIS
Terra 500m
6/10/08



MODIS Terra 500m 7-2-1 10 June 2008

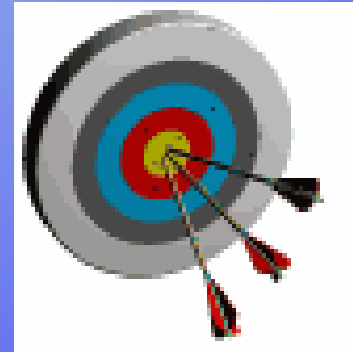
Cropland Data Layer (CDL) Discussion

- Legacy program
 - Issues: Budget/Satellites/Agency Support/Technology

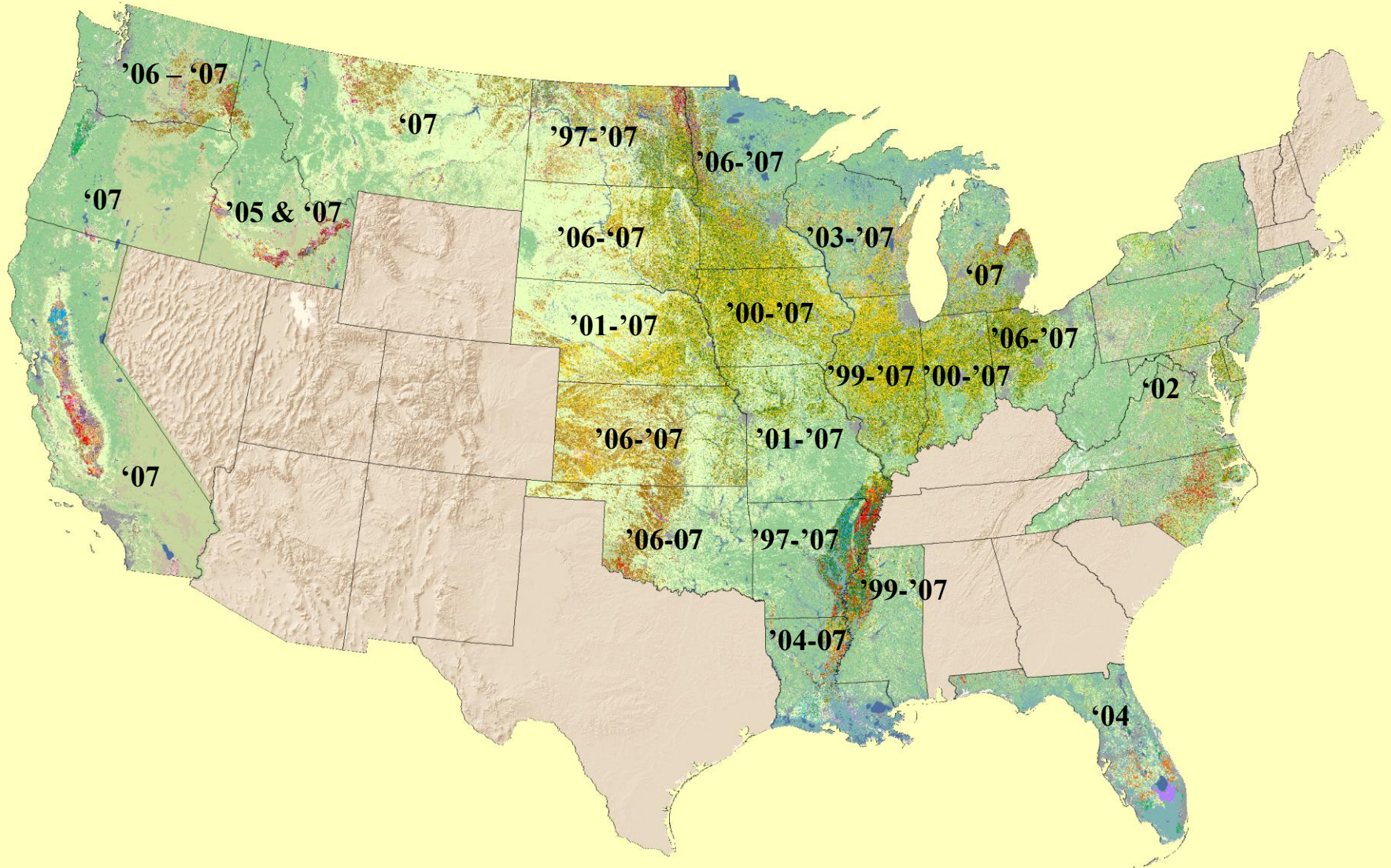


CDL Program Objectives

- **“Census by Satellite”**
 - Annually cover major producing corn and soybean regions
 - Indications reflect actual location of the crops
 - Not address on record via survey
- **Provide timely, accurate, useful indications**
 - Measurable error
 - Unbiased/independent estimator
 - State, county and watershed level
- **Operationalize indications delivery**
 - For June, August, and October
 - Ag Statistics Board
- **Output crop specific CDL**
 - Distribute to public at the cost of reproduction
 - [NRCS Geospatial Data Gateway](#)
 - Publish accuracy statistics/metadata



Cropland Data Layers 1997 - 2007



CDL Program



- Inputs
 - Resourcesat-1 AWiFS imagery
 - Farm Service Agency – Common Land Unit
 - Ancillary data
 - Commercial software suite
- Outputs
 - Acreage Estimates
 - Cropland Data Layer

IRS Resourcesat-1 A WiFS Imagery

340 km swath per head
740 km combined

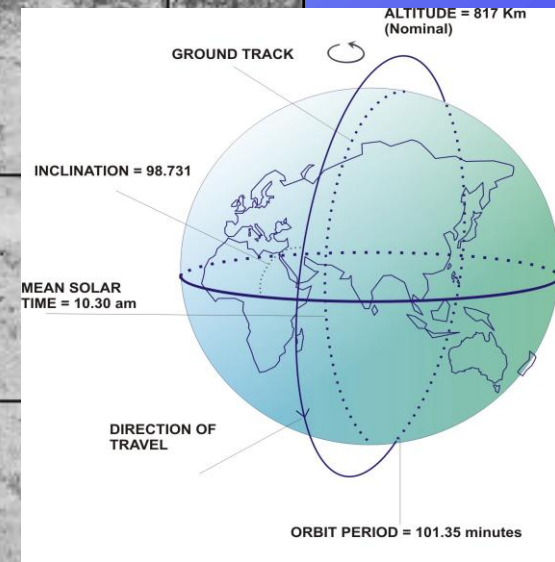
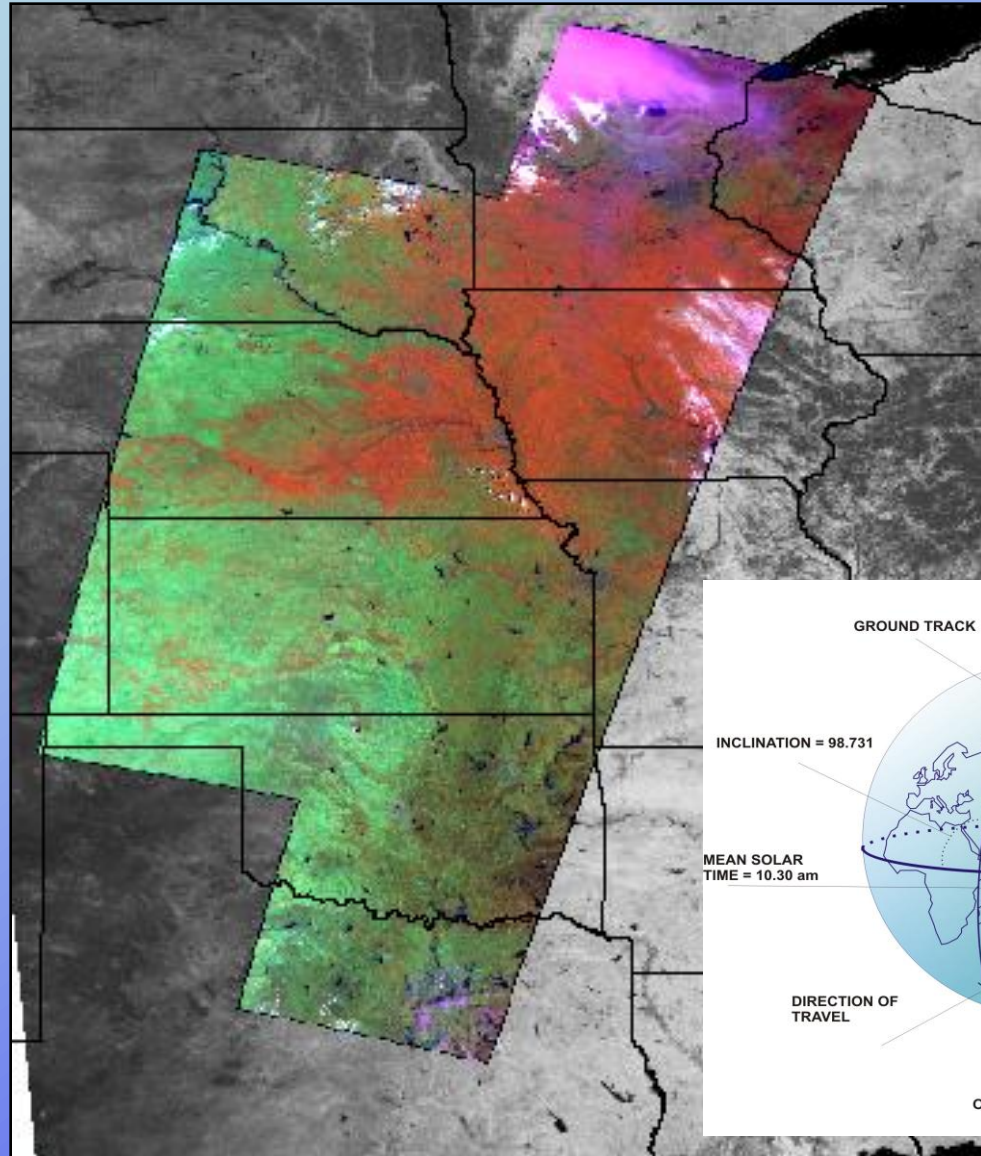
5-day revisit

4 spectral bands

- B2: 0.52 - 0.59
- B3: 0.62 - 0.68
- B4: 0.76 - 0.86
- B5: 1.55 - 1.7

56 m nadir/70 m field edges

Data provided by Arctic Slope
Regional Corporation

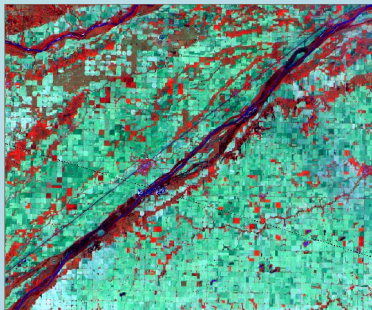


13 Aug 2007

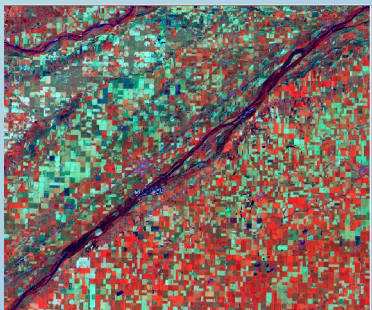


Department of Space
Indian Space Research Organisation

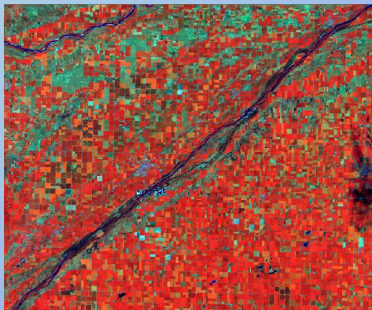
A WiFS Imagery Time Series



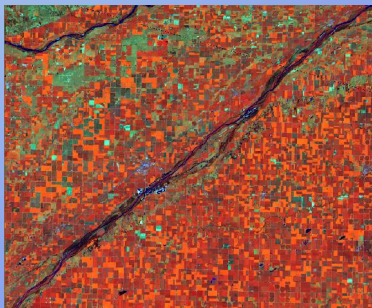
May 18



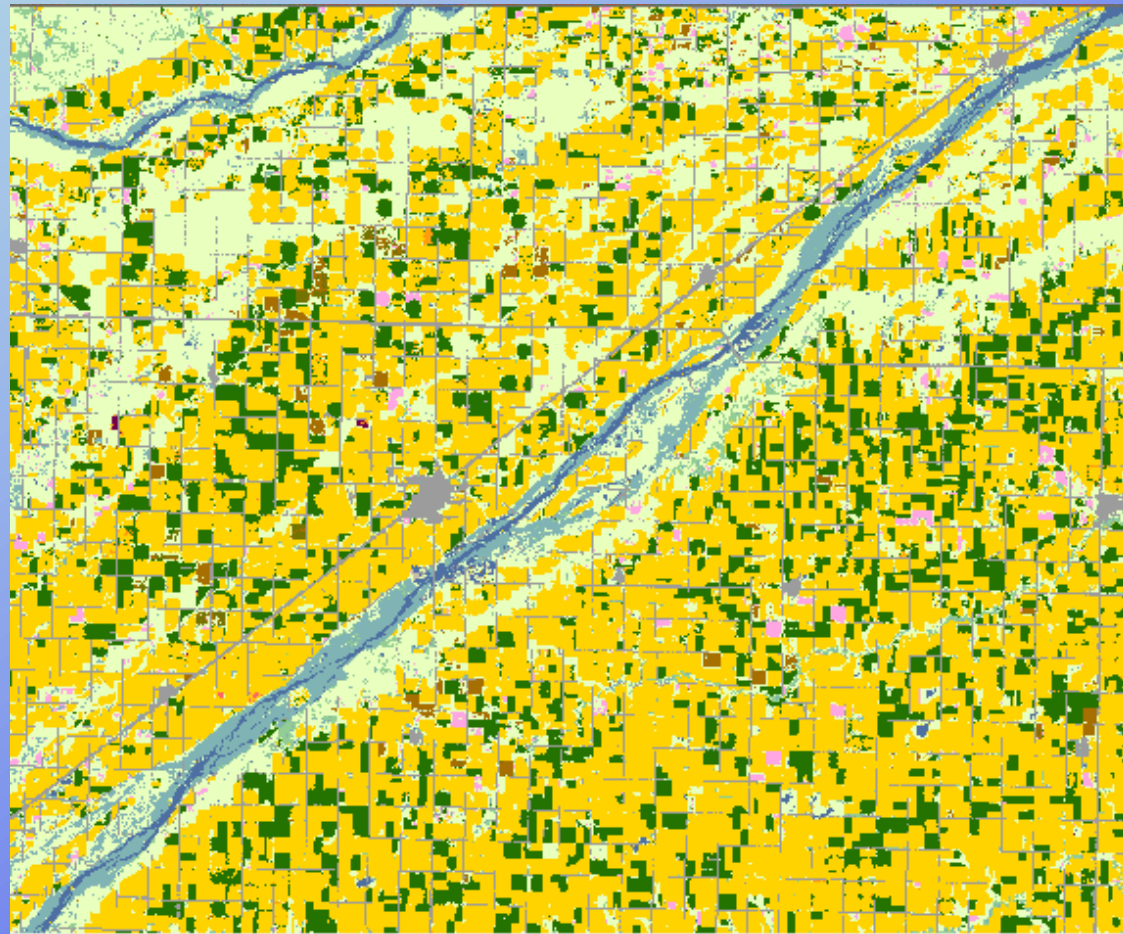
June 21



July 15



Aug 27



USDA Satellite Image Archive

Active Paths for P6-AWiFS CONUS

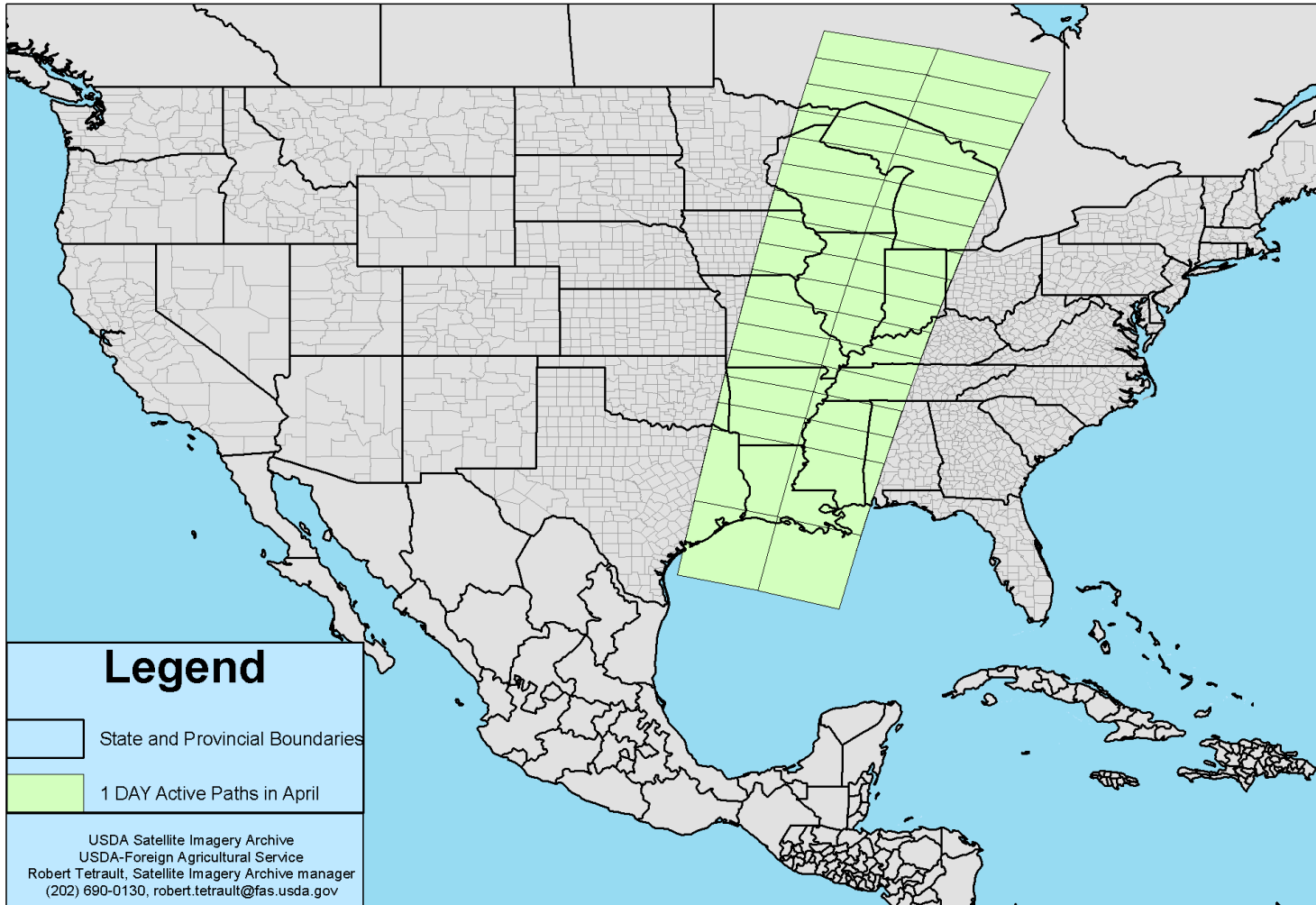
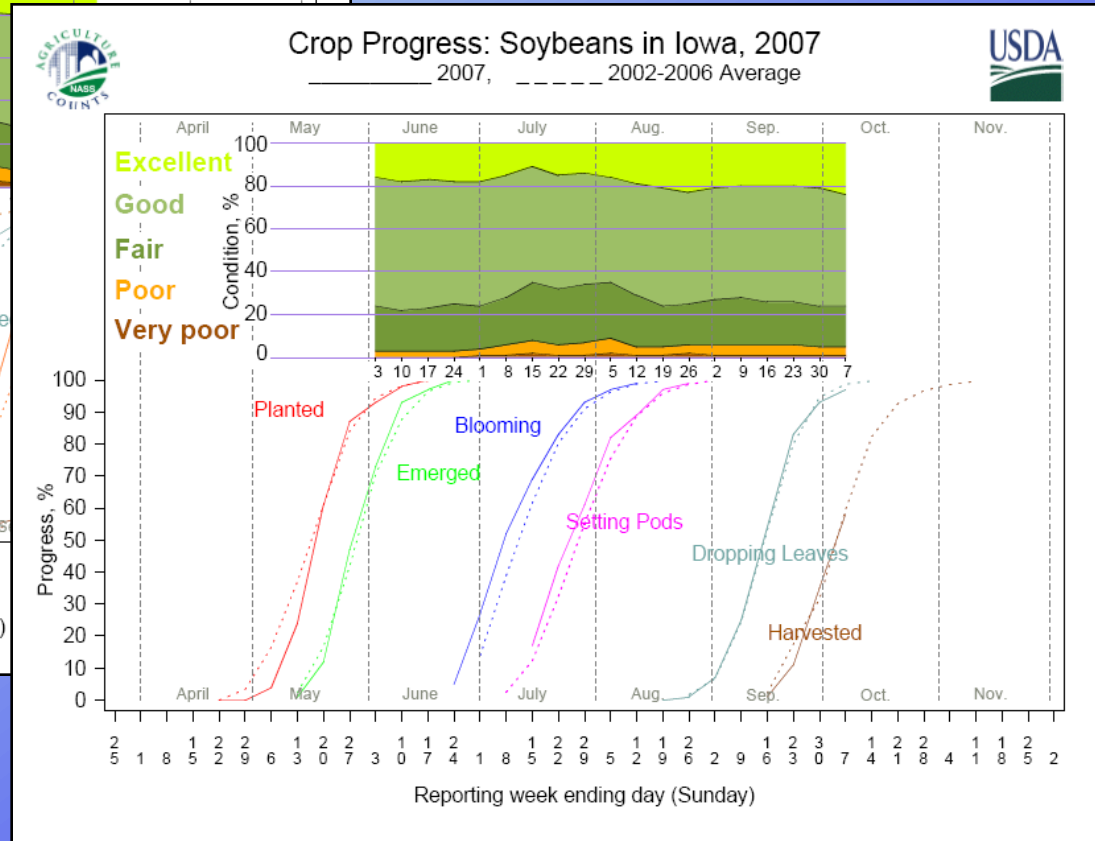
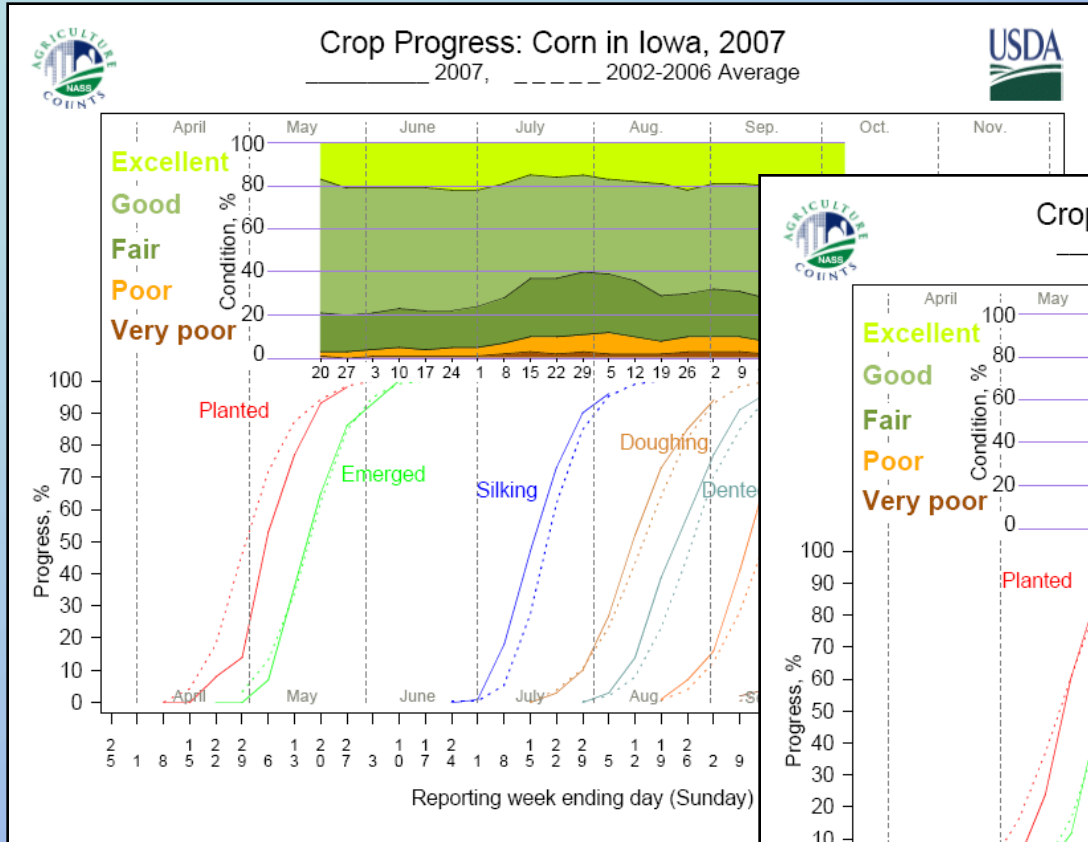
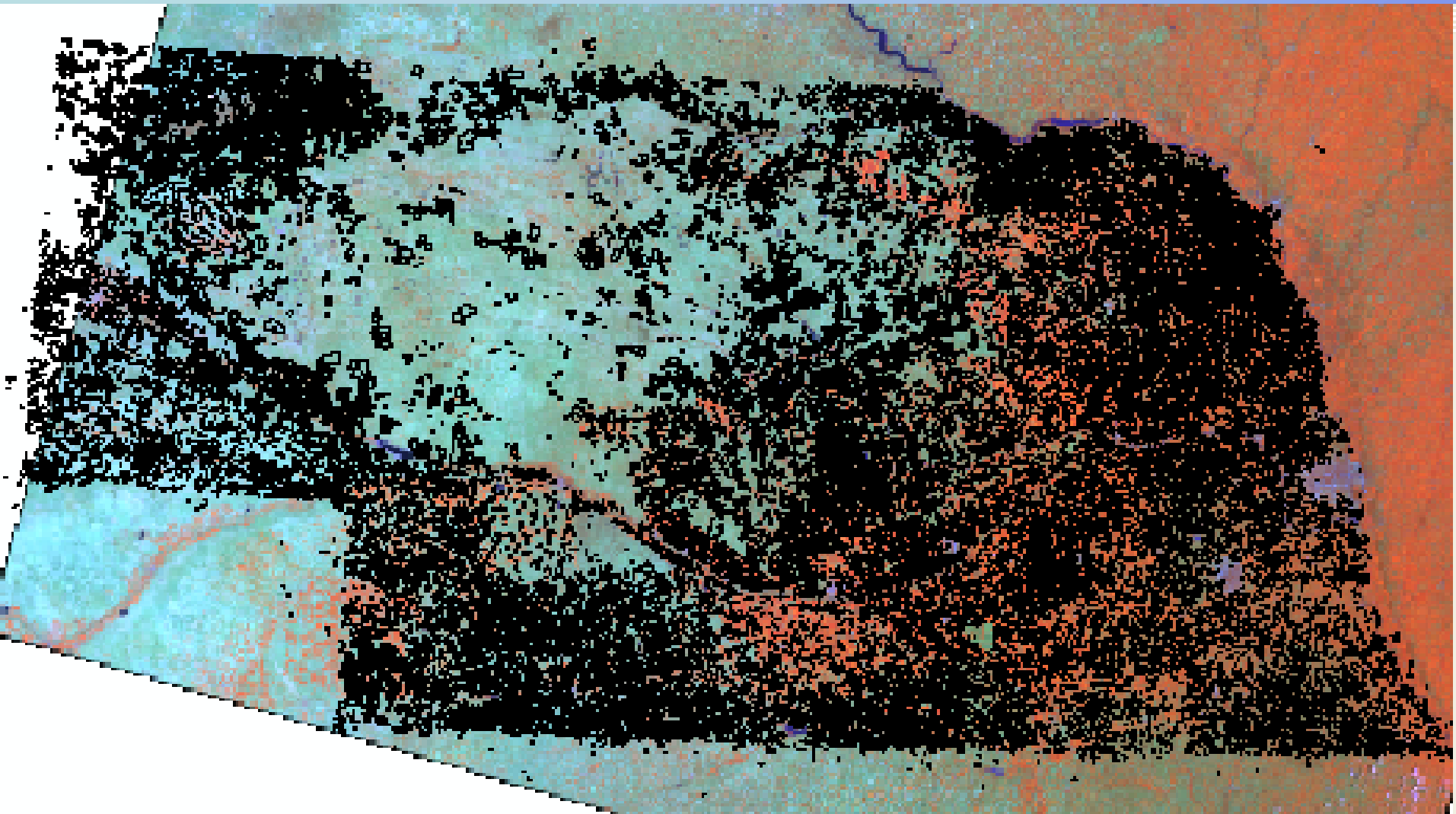


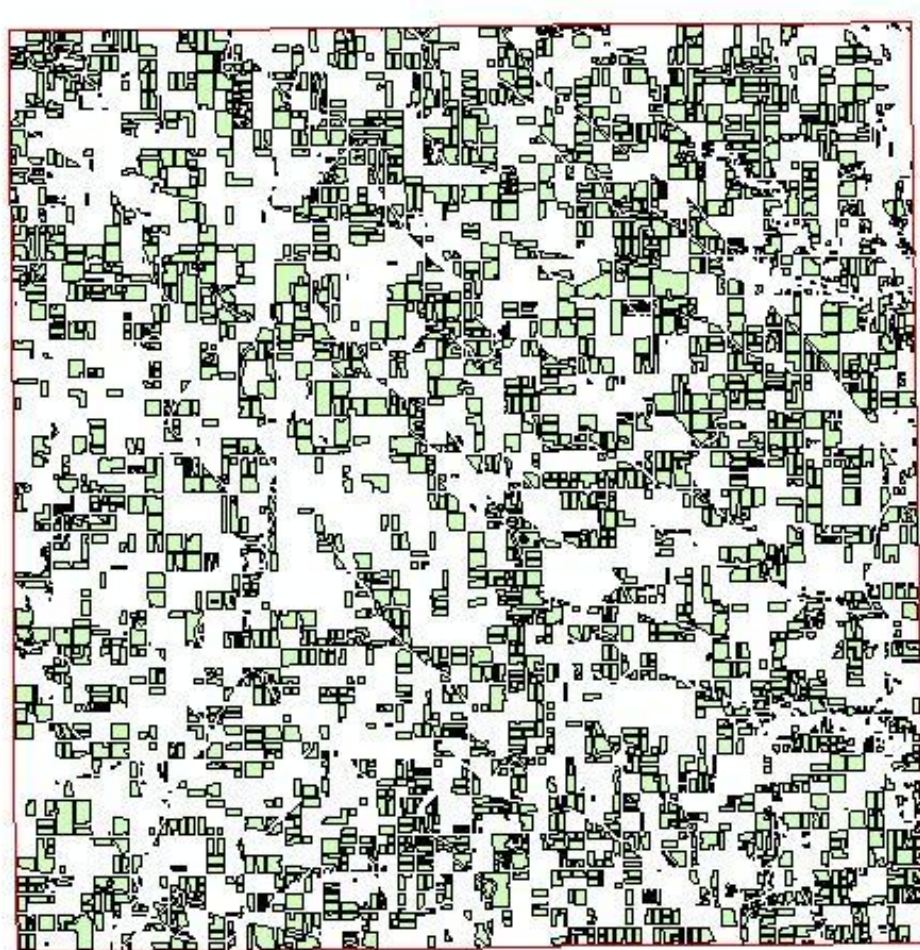
Image Timing



Ground Truth - Agriculture



NASS June Agricultural Survey (JAS) data still
used for acreage estimation

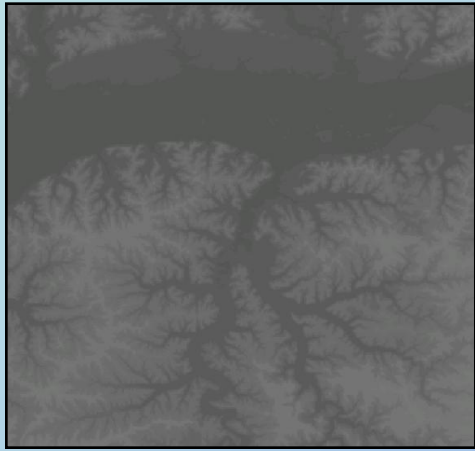


Matching CLU's used for
sampling (i.e., testing/training)

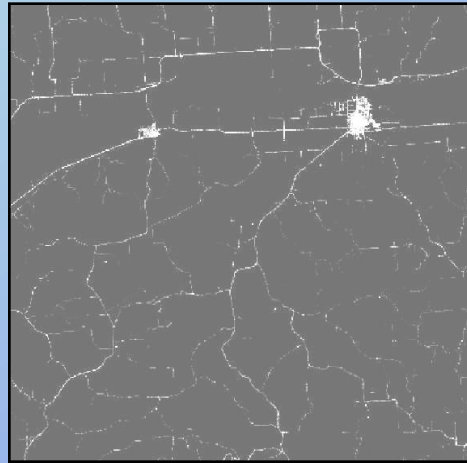


CDL Classification

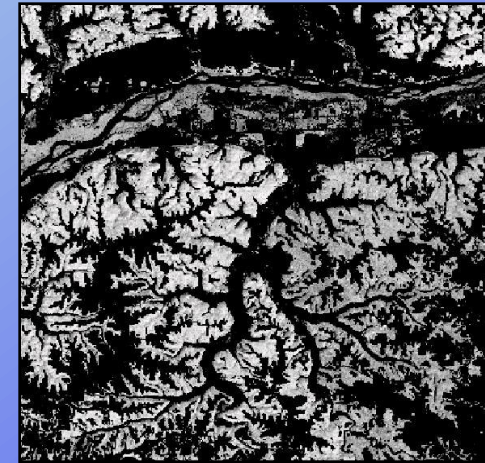
Ancillary Data – USGS/NASA Products



Elevation

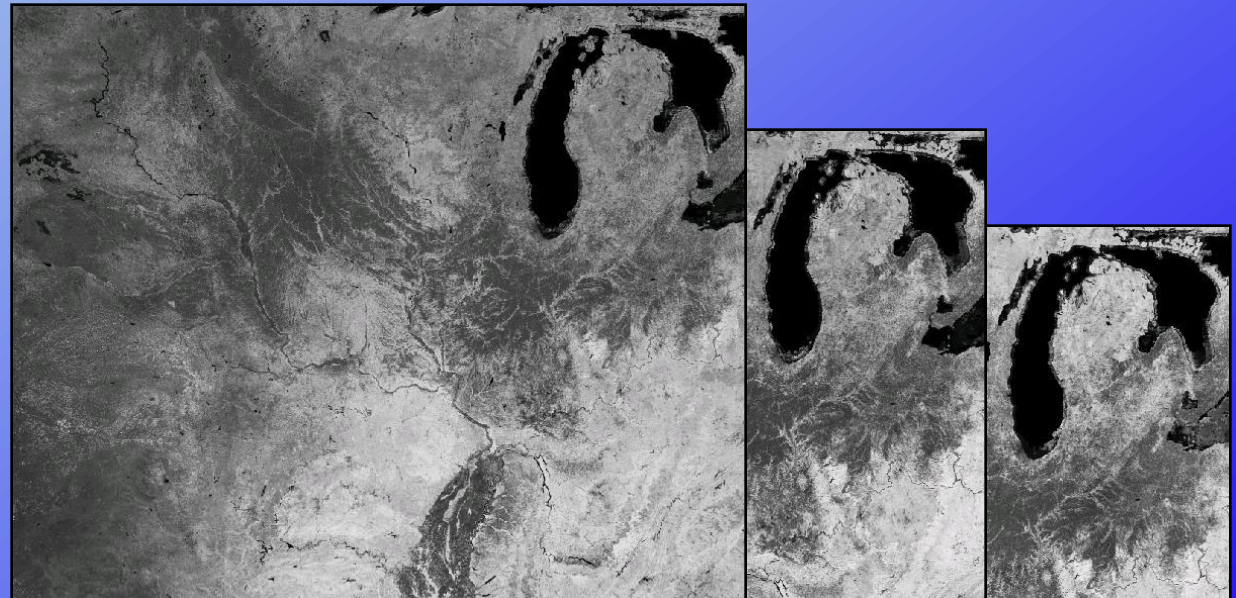


Imperviousness



Forest Canopy

NASA MODIS Terra
(16-day NDVI composite)



Commercial Software Suite

- Imagery Preparation
 - ERDAS Imagine
- Image classification
 - Decision tree software
 - See5.0 www.rulequest.com
- Ground Truth Preparation
 - ESRI ArcGIS
- Acreage Estimation
 - SAS/IML workshop

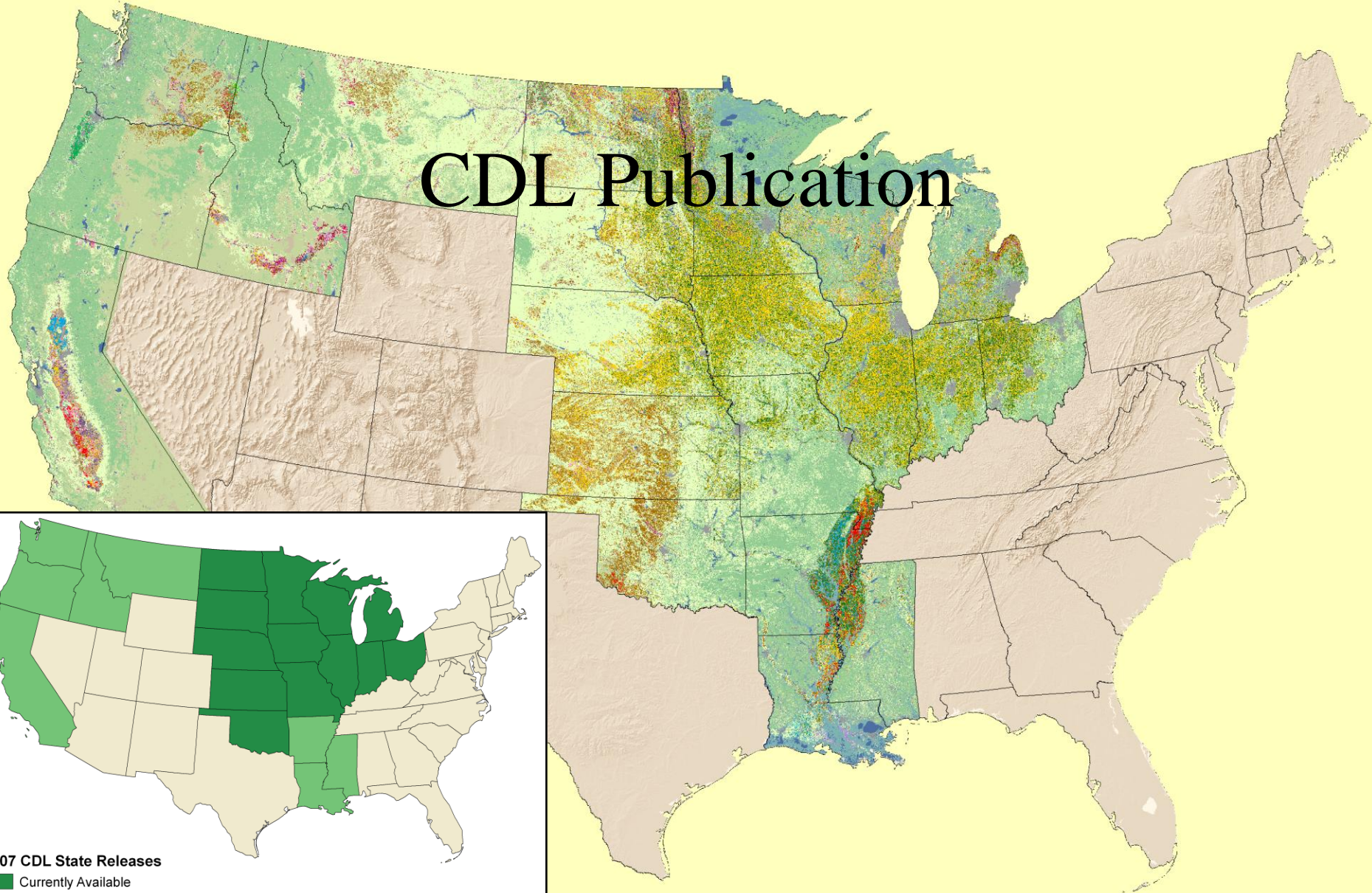






Cropland Data Layers 2007



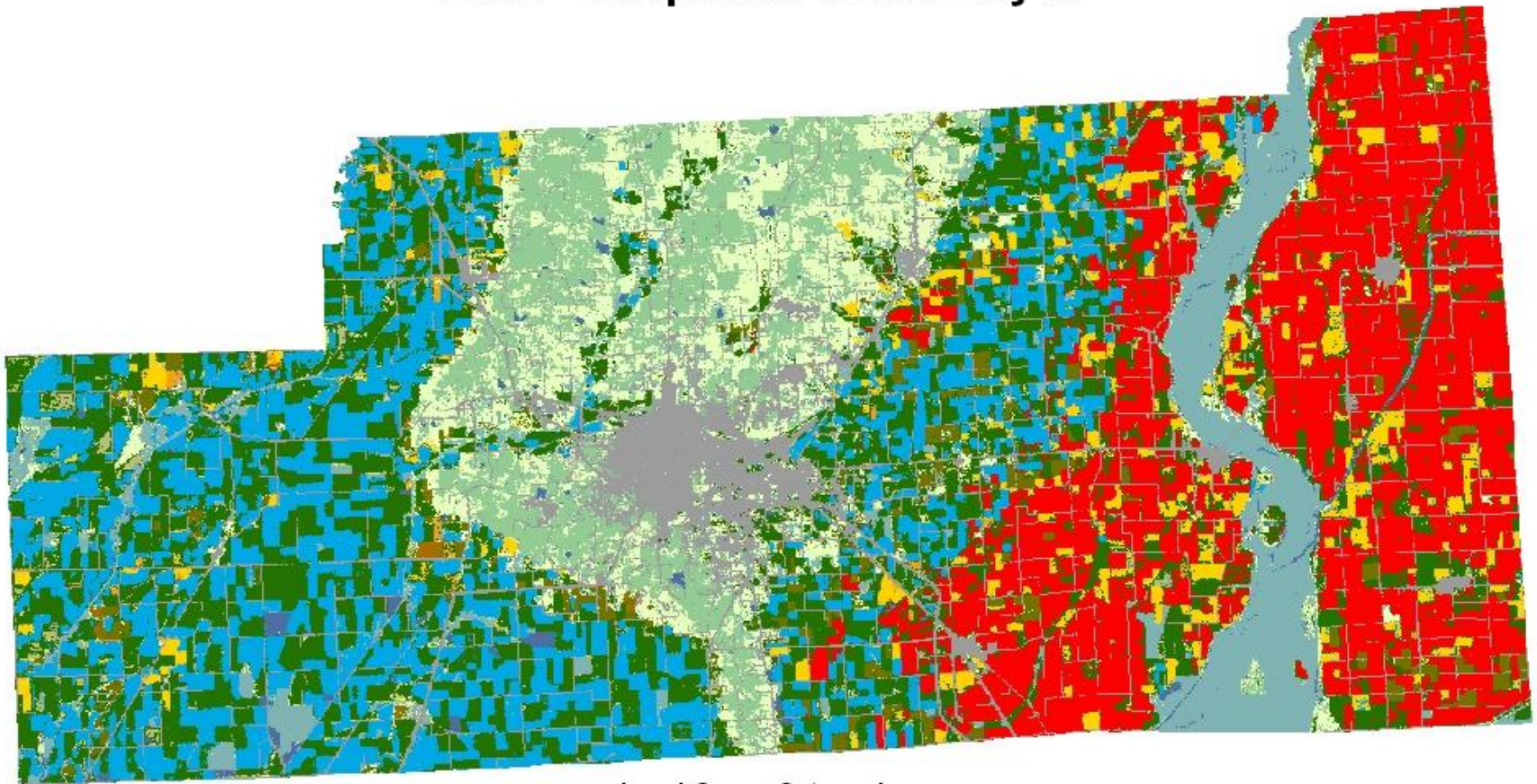
CDL Publication



2007 CDL State Releases

-  Currently Available
-  July 2008 Available

Craighead County, Arkansas 2007 Cropland Data Layer



Land Cover Categories
(Ordered by Decreasing Acreage)

Agricultural

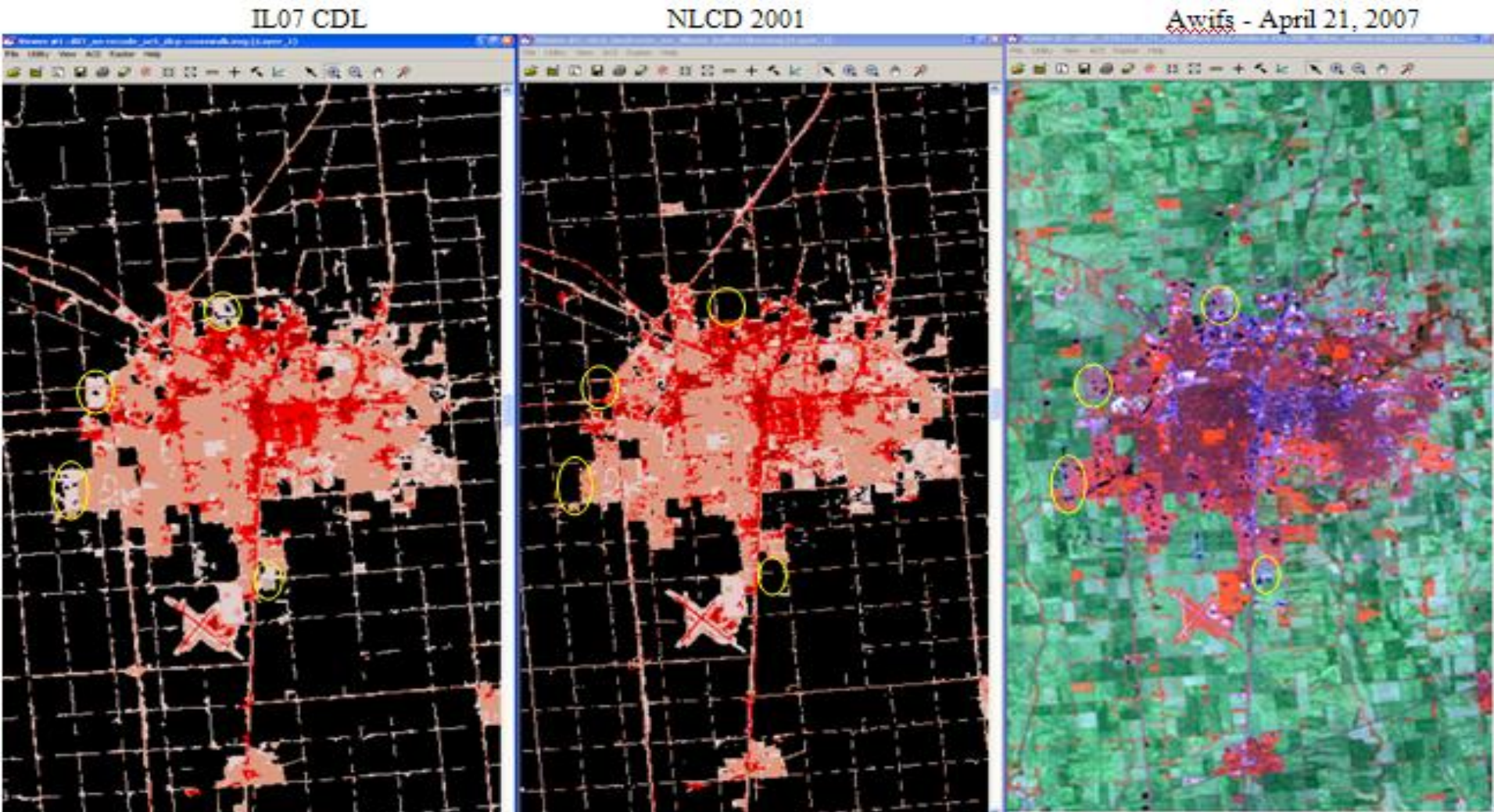
- Soybeans
- Cotton
- Rice
- Corn
- W. Wht./Soy. Dbl. Cropped
- Sorghum
- Winter Wheat
- Peas

- Aquaculture
- Other Crops
- Misc. Veggies. & Fruits
- Watermelon
- Sunflowers
- Oats
- Alfalfa
- Clover/Wildflowers

Non-Agricultural

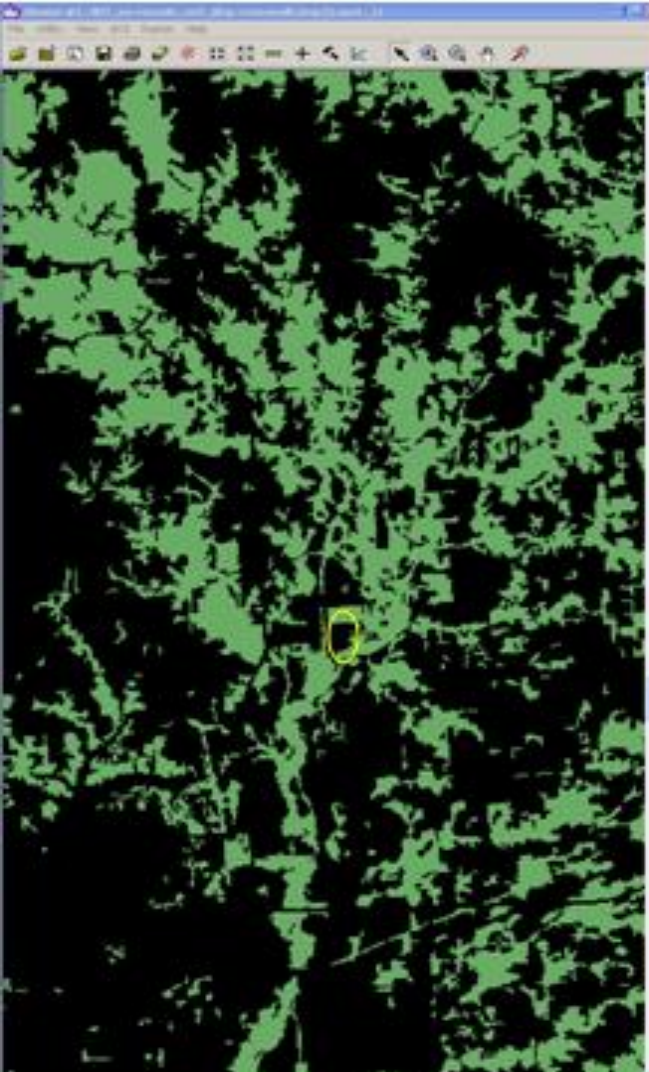
- Urban/Developed
- Grass/Pasture/Non-Ag
- Wetlands
- Woodland
- Water
- Fallow/Idle Cropland
- Barren
- Shrubland

Non Ag NLCD Updates (urban sprawl)

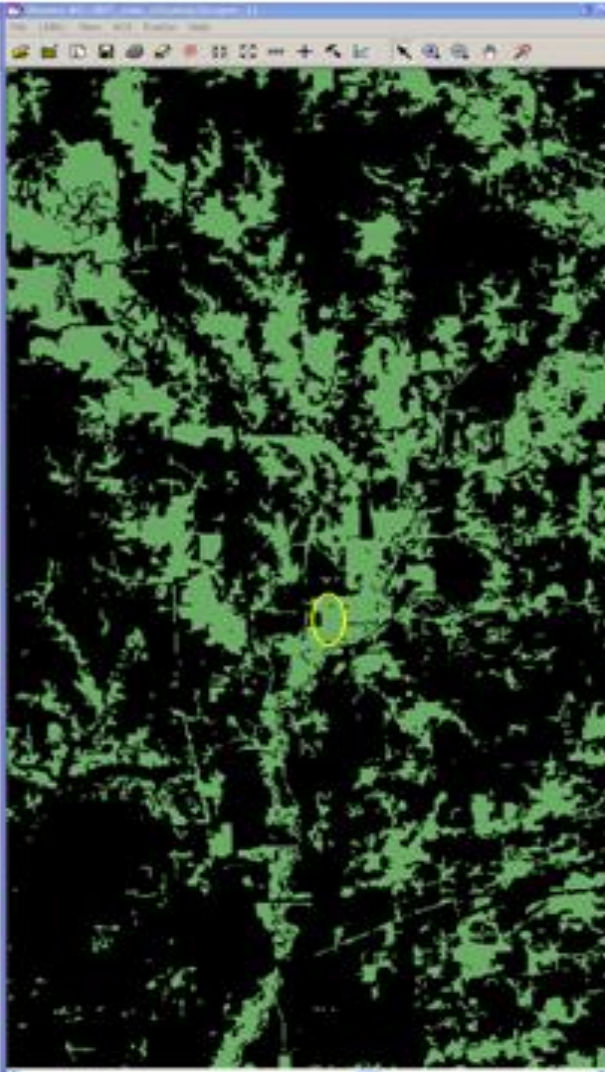


Non Ag NLCD Updates (forest clearing)

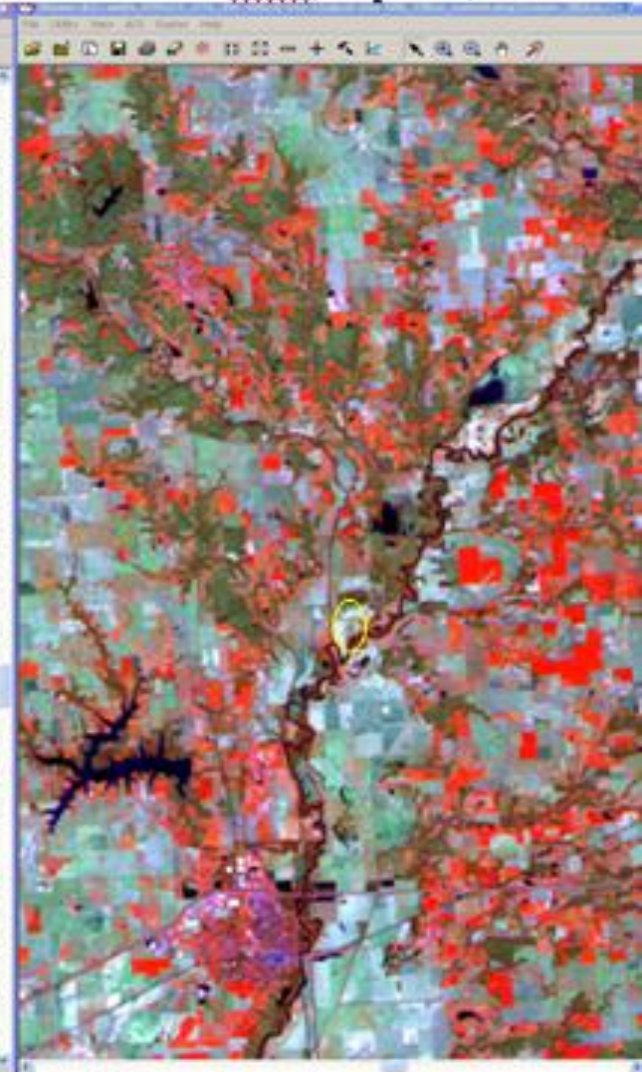
IL07 CDL



NLCD 2001



Awifs - April 21, 2007



Accuracy Statistics

Crop-specific covers only *Correct Accuracy Error Kappa

USDA, National Agricultural Statistics Service, 2007 California Cropland Data Layer

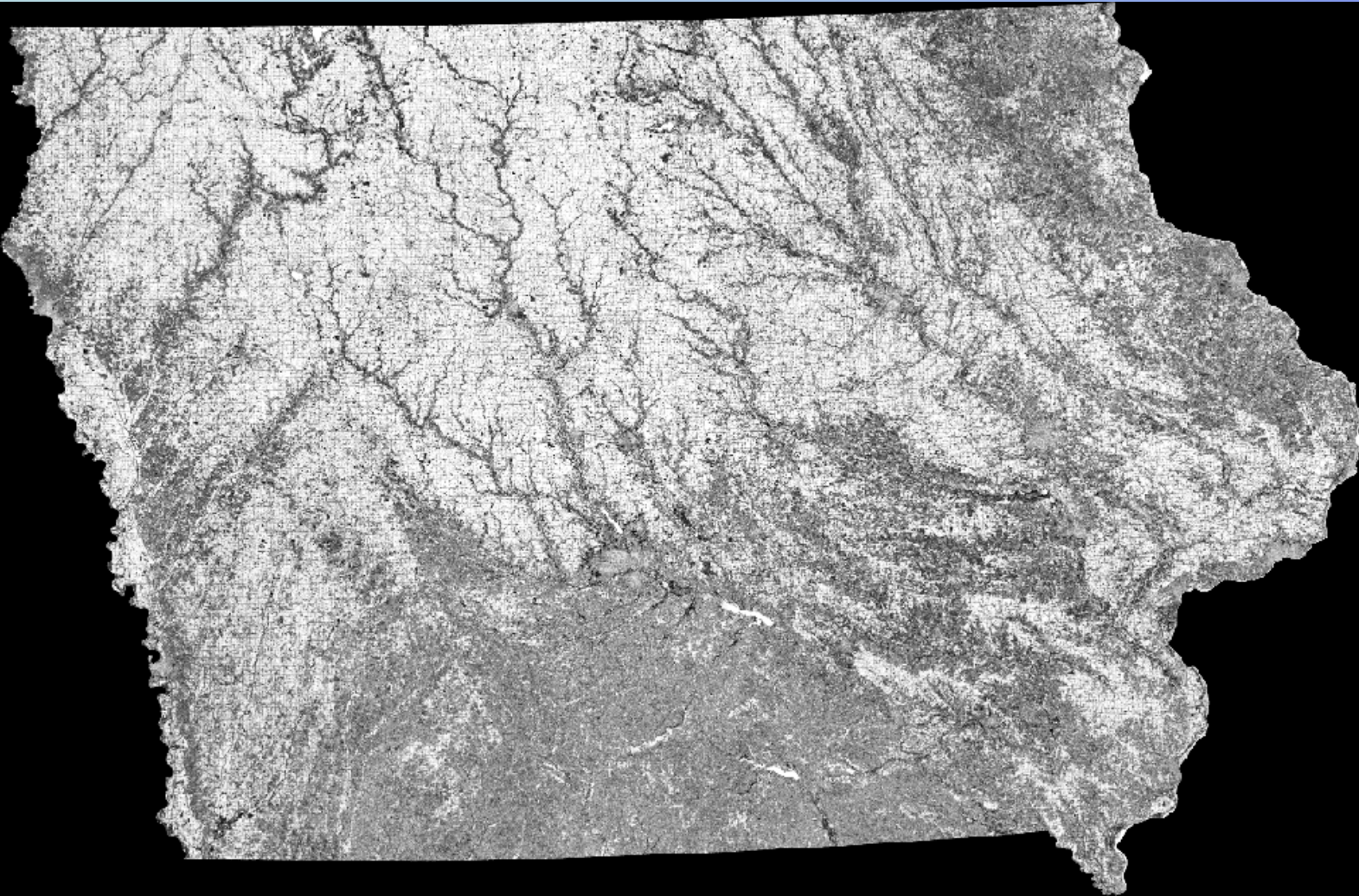
Metadata:

- [Identification Information](#)
- [Data Quality Information](#)
- [Spatial Data Organization Information](#)
- [Spatial Reference Information](#)
- [Entity and Attribute Information](#)
- [Distribution Information](#)
- [Metadata Reference Information](#)

Potatoes	43	49	96.08%	3.92%	0.9608	100.00%	0.00%	1.0000
Other Crops	44	50	45.87%	54.13%	0.4587	80.65%	19.35%	0.8064
Misc Veggies & Fruits	47	33	54.10%	45.90%	0.5410	86.84%	13.16%	0.8684
Watermelon	48	24	77.42%	22.58%	0.7742	85.71%	14.29%	0.8571
Peas	53	188	72.59%	27.41%	0.7258	96.91%	3.09%	0.9691
Clover/Wildflowers	58	21	36.21%	63.79%	0.3621	75.00%	25.00%	0.7500
Fallow/Idle Cropland	61	30612	69.78%	30.22%	0.6922	90.48%	9.52%	0.9025
Peaches	67	9	36.00%	64.00%	0.3600	100.00%	0.00%	1.0000
Other Tree Nuts & Fruit	71	69	33.82%	66.18%	0.3382	83.13%	16.87%	0.8313

*Correct Pixels represents the total number of independent validation pixels correctly identified in the error matrix.

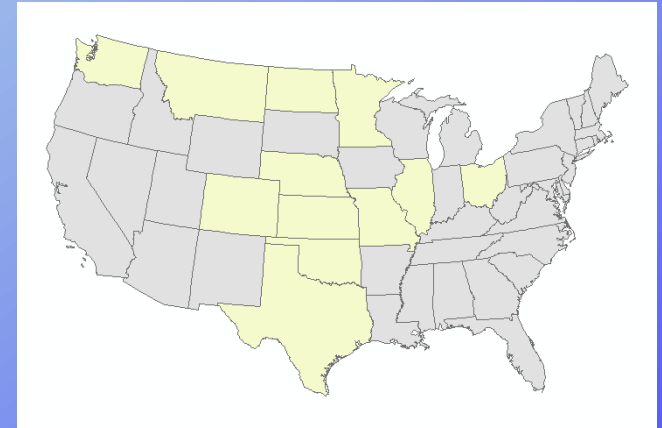
Confidence Map



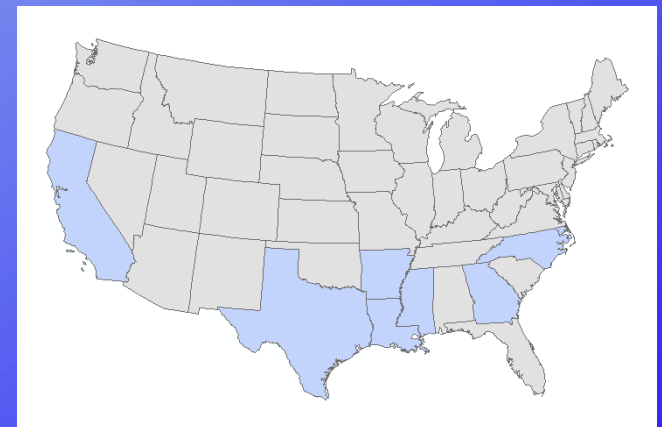
Light High
Dark Low

Cropland Data Layer Future

- Expand geographic scope
 - Cotton, Winter, Durum and Spring Wheat
- Derivatives
 - Change detection
 - Crop rotation patterns
- National program
 - Leverage resource partnerships



Primary Wheat States



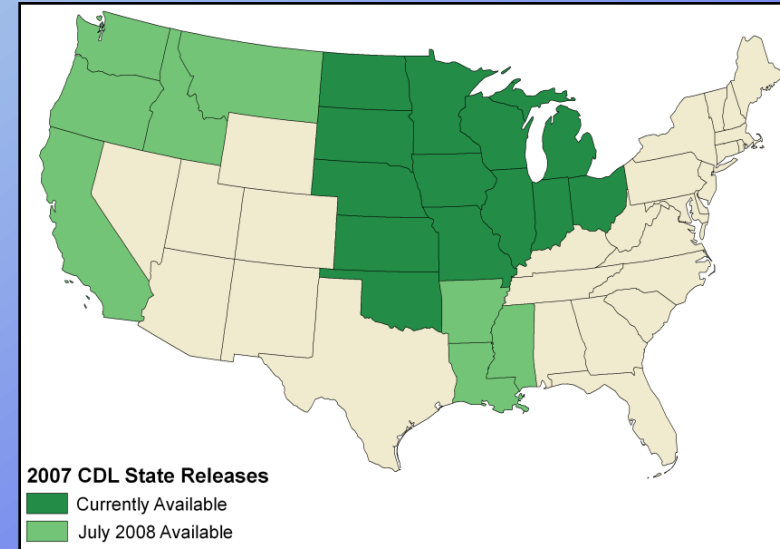
Primary Cotton States



Program Summary



- Cropland Data Layer Method
 - AWiFS imagery
 - FSA CLU dataset
 - Commercial software
 - Ancillary data
- CDL Stakeholder Distribution:
 - Annually after county estimates published
 - Metadata/accuracies/confidence layer
- Access:
 - <http://datagateway.nrcs.usda.gov>



Geospatial

The Geospatial Data Gateway provides One Stop Service for natural resources data. The Geospatial Data Gateway provides One Stop Service for natural resources data from anywhere, to anywhere, to allow you to choose, browse and select data, customize the format or shipped on CD or DVD.

SYSTE

All products and services are normally available. Due to unavailability of data, orders with these products, please allow 10-15 business days to complete. For more information, please contact the data service site at www.nrcs.usda.gov/geospatial.

Effective 13-DEC-06, for Step 1 and 2. The data service site is now available. Please refer to [items 2 & 3](#) on the [Data Gateway](#) browser.

Data Gateway