

# National Agricultural Statistics Service

Environmental, Economics, and  
Demographics Branch  
(EEDB)



# EEDB Program Areas

<b>Economic</b>	Prices Received, Prices Paid, and Price Indexes Farm Expenditures Land Values and Cash Rents
<b>Environmental</b>	Agricultural Chemical Usage Pest Management Practices
<b>Demographic</b>	Census of Agriculture – Race, Age, Gender, ... Farm Labor Farm Numbers and Land in Farms

# Monthly Prices for Crops

- Data collected from monthly surveys along with administrative price data (AMS, etc) is used to set monthly estimates for prices at the US and State level (States vary by commodity).
- For major grains, oilseeds & pulse crops, NASS collects data on total quantity purchased and total dollars received from a sample of mills, elevators, and other buyers.





# Agricultural Prices

ISSN: 1937-4216

Released May 30, 2014, by the National Agricultural Statistics Service (NASS), Agricultural Statistics Board, United States Department of Agriculture (USDA).

## May Farm Prices Received Index Down 1 Point

The preliminary All Farm Products Index of Prices Received by Farmers in May, at 114 percent, based on 2011=100, decreased 1 point (0.9 percent) from April. The Crop Index is up 1 point (1.0 percent) but the Livestock Index decreased 1 point (0.8 percent). Producers received lower prices for hogs, milk, eggs, and cattle. Prices were higher for broilers, oranges and strawberries. In addition to prices, the overall index is also affected by the seasonal change based on a 3-year average mix of commodities producers sell. Increased monthly movement of cattle, hay, sweet corn, and broilers offset the decreased marketing of soybeans, hogs, calves, and apples.

The preliminary All Farm Products Index is up 4 points (3.6 percent) from May 2013. The Food Commodities Index, at 124, was unchanged from last month but increased 14 points (13 percent) from May 2013.

## Prices Paid Index up 1 Point

The May Index of Prices Paid for Commodities and Services, Interest, Taxes, and Farm Wage Rates (PPITW) is 112 percent of its 2011 base. The index is up 1 point (0.9 percent) from April and 6 points (5.7 percent) above May 2013. Higher prices for complete feeds, feeder cattle, hay & forages, and potash & phosphate more offset lower prices in May for feeder pigs, concentrates, other services, and LP gas.

## Prices Received, Prices Paid, and Ratio of Prices Received to Prices Paid Indexes 2011 Base – United States: May 2014 with Comparisons

Index	May	April	May
	2013	2014	2014
Prices received by farmers .....	110	115	114
Prices paid by farmers .....	106	111	112
Ratio of prices received to prices paid .....	104	104	102



## Prices Paid Indexes and Related Parity Ratios – United States: May 2014 with Comparisons

[Revised historical price indexes for months not shown are available at [www.nass.usda.gov](http://www.nass.usda.gov)]

Indexes and ratios	1910-1914 Base			2011 Base		
	May 2013	April 2014	May 2014	May 2013	April 2014	May 2014
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Prices paid by farmers for commodities, services, interest, taxes, and wage rates (PPITW) .....	2879	3014	3029	106	111	112
Production .....	2235	2362	2377	107	113	114
Feed .....	1341	1306	1327	122	119	120
Livestock and poultry .....	1925	2820	2840	97	143	144
Seeds .....	3643	3752	3752	111	114	114
Fertilizer .....	1262	1206	1241	105	100	103
Chemicals .....	969	989	990	108	110	110
Fuels .....	2695	2888	2859	96	103	102
Supplies and repairs .....	1223	1245	1251	104	106	106
Autos and trucks .....	3181	3216	3228	103	105	105
Machinery .....	6600	6811	6838	108	111	112
Building materials .....	2437	2477	2480	105	106	107
Services and rent .....	2222	2271	2266	(NA)	(NA)	(NA)
Services .....	(NA)	(NA)	(NA)	105	107	107
Rent .....	(NA)	(NA)	(NA)	104	107	107
Interest <sup>1</sup> .....	3572	3684	3684	98	101	101
Taxes <sup>2</sup> .....	6137	6233	6233	103	105	105
Wage rates .....	7609	7679	7679	106	107	107
Production, interest, taxes, and wage rates (PITW) .....	3013	3168	3185	107	112	113
Family living-CPI <sup>3</sup> .....	2213	2252	2259	104	105	106
Ratio (received/paid) .....	(NA)	(NA)	(NA)	104	104	102
Parity ratio <sup>4</sup> .....	40	39	39	(NA)	(NA)	(NA)
Parity ratio adjusted <sup>5</sup> .....	41	40	40	(NA)	(NA)	(NA)
PPITW adjusted for productivity <sup>6</sup> .....	1410	1421	1424	(NA)	(NA)	(NA)
Crop sector (PPITW) .....	(NA)	(NA)	(NA)	105	108	108
Livestock sector (PPITW) .....	(NA)	(NA)	(NA)	108	115	116
Farm sector (production) .....	(NA)	(NA)	(NA)	112	125	126
Non-farm sector (production) .....	(NA)	(NA)	(NA)	104	106	106

(NA) Not available.

<sup>1</sup> Interest per acre on farm real estate debt and interest rate on farm non-real estate debt.

<sup>2</sup> Farm real estate taxes payable per acre.

<sup>3</sup> Bureau of Labor Statistics, Consumer Price Index for all urban consumers (CPI-U), for the previous month converted by the USDA.

<sup>4</sup> Ratio of index of prices received to PPITW (1910-1914=100).

<sup>5</sup> Based on estimated cash receipts, from marketings and government payments, the preliminary adjustment factor is 1.044 for 2014 and the revised factor is 1.041 for 2013.

<sup>6</sup> PPITW is adjusted based on productivity trend for the prior 15 years.



# Prices Paid Index

- Purposes
  - Collect prices paid for farm inputs.
  - Indexes measure relative change of prices paid for farm inputs. (agricultural chemicals, fuels, feed, farm machinery, & seed)
- Coverage
  - 48 contiguous states.
  - Approximately 135 items surveyed.
  - Production items represent about 71% of index.
  - Family living items represent about 15%.
  - Interest, taxes, and wages, represent about 14%.

# Prices Paid Indexes

- Frequency
  - Survey conducted each year in March.
  - Indexes updated in other months.
- Methods
  - Target population – retail establishments where farmers purchase farm inputs.
  - Survey panel of approximately 8,500 businesses.
  - Survey response rates are 75 to 80 percent.

**Prices Received Indexes as a Percent of 2011 Base – United States: May 2014 with Comparisons**[Revised historical price indexes for months not shown are available at [www.nass.usda.gov](http://www.nass.usda.gov)]

Index	2011 Base		
	May 2013	April 2014	May 2014
	(percent)	(percent)	(percent)
Agricultural Production .....	110	115	114
Crop Production .....	109	97	98
Grains and oilseed .....	115	92	91
Feed grain .....	116	79	79
Food grain .....	106	99	103
Oilseed .....	118	113	114
Fruit and tree nut .....	103	111	116
Commercial vegetable .....	103	102	100
Other crop .....	106	102	107
Livestock Production .....	112	132	131
Meat animal .....	108	132	129
Cattle .....	110	131	130
Hog .....	103	134	126
Dairy .....	98	126	123
Poultry and egg .....	136	141	143
Food Commodity .....	110	124	124

**Prices Received Indexes as a Percent of 1910-1914 Base – United States: May 2014 with Comparisons**[Revised historical price indexes for months not shown are available at [www.nass.usda.gov](http://www.nass.usda.gov)]

Index	1910 - 1914 Base		
	May 2013	April 2014	May 2014
	(percent)	(percent)	(percent)
Agricultural Production .....	1140	1184	1180
Crop Production .....	954	850	855
Livestock Production .....	1295	1533	1517





# Prices Received Index

- Purpose
  - Provides data to estimate prices received by farmers and ranchers for commodities.
  - Determines the Prices Received Indexes.
- Coverage
  - Includes all commodities in NASS estimating program.

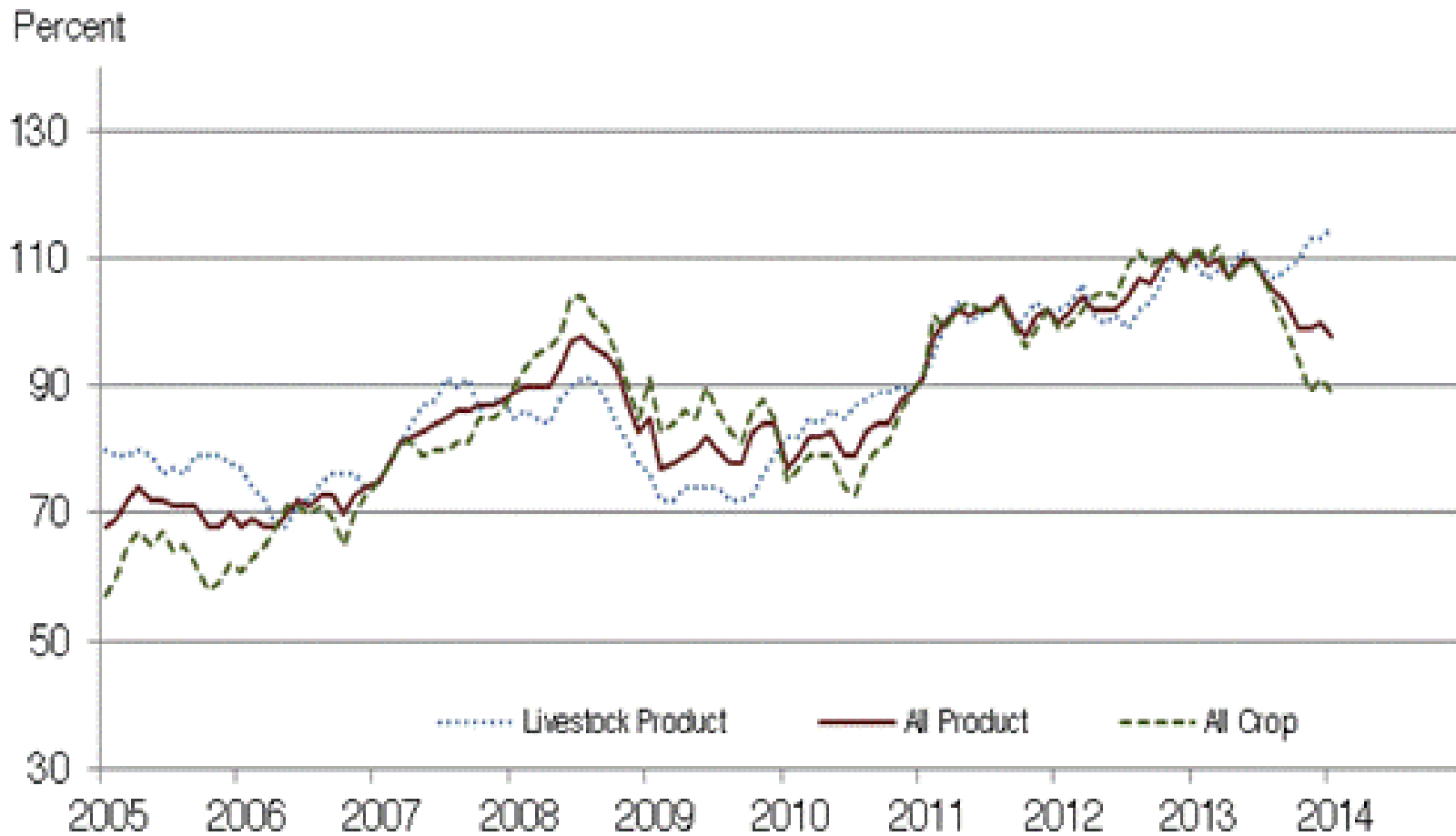


# Prices Received Index

- Frequency
  - Survey conducted monthly for grains, oilseeds, pulse crops, and major livestock.
  - Other commodities are collected annually.
- Methods
  - Target populations are specific to each commodity.
  - Grains, oilseeds, and pulse crops prices are obtained from about 2,000 grain elevators and other buyers.
  - Livestock prices are collected from auctions, stockyards, packing plants and other buyers,.
  - Fruit and vegetable prices are collected from State Boards, marketing cooperatives, grower associations, processors, canneries and producers.



# Received Indexes by Month, Livestock Product, All Product, and All Crop – United States: 2011=100



USDA - NASS  
01/31/2014

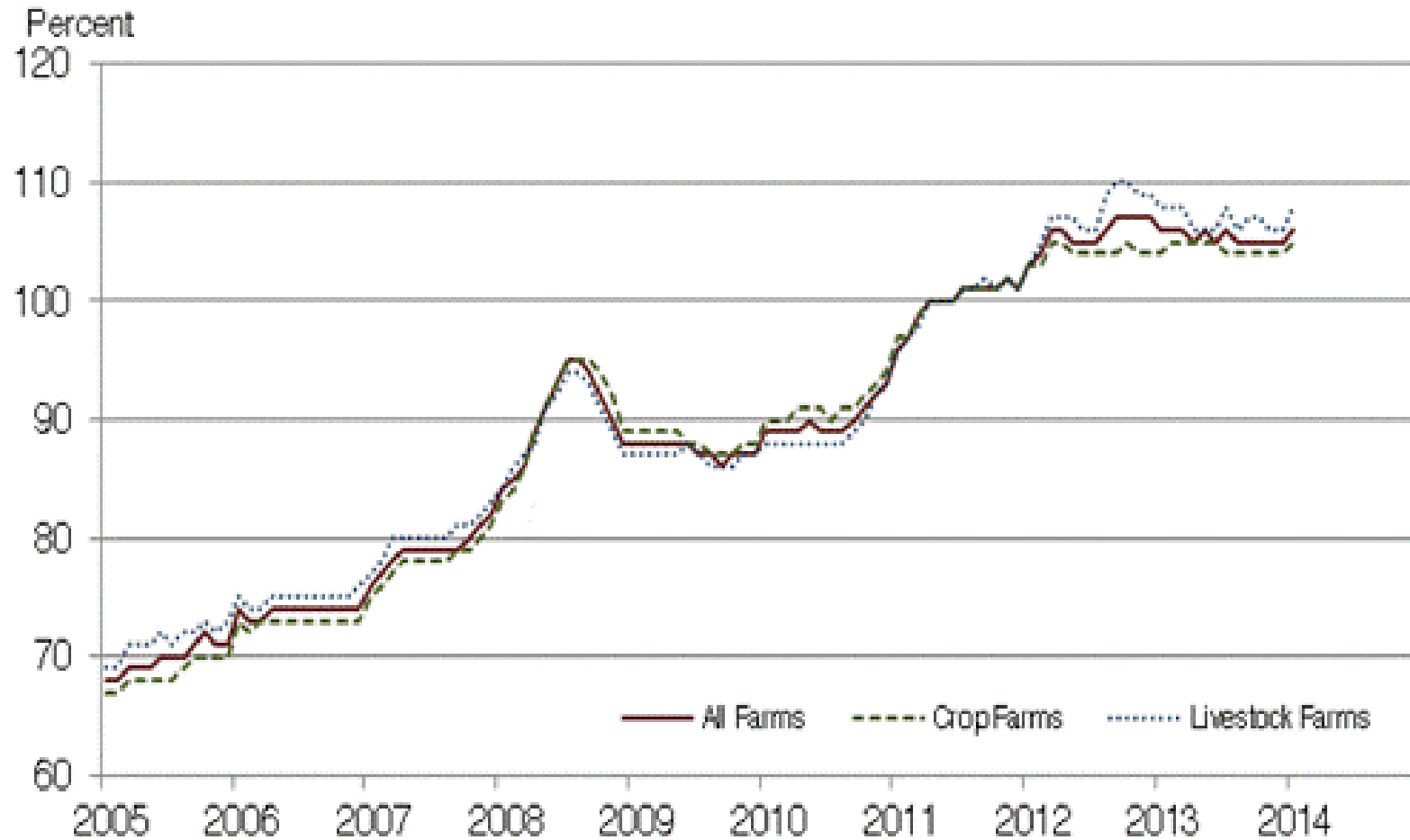


# Prices Received for Corn by Month – United States

Dollars per bushel



# Paid Indexes by Farm Type and Month, All Items – United States: 2011=100



USDA - NASS  
01/31/2014



# Other Economic Data

- ARMS III / Farm Expenditures
- Annual Farm Numbers and Land In Farms
  - Estimates produced from June Area Survey
  - U.S. And State Level Estimates
- Land Values – Value of Farmland
  - Produced annually – June Area Survey
  - U.S. and State Level Estimates
- Annual Average Cash Rents
  - Rent paid by farmers for Agricultural Land
  - Produced Annually- June Area Survey and List Survey
  - U.S., State, and County Level Estimates



# Agricultural Resource Management Survey (ARMS)

- Sample Size of Approximately 33,000 Farms
- Largest annual project in NASS
- The ARMS III utilizes multiple questionnaire versions. Prior to 2012, a Core version of the questionnaire was used to obtain global farm level expense, income, and household data. The Costs and Returns Report asks for the same data as the Core questionnaire in greater detail. A separate ARMS III questionnaire version is developed for each of the production practices designated commodity samples with additional questions relating to the current year's designated crop and livestock commodities.

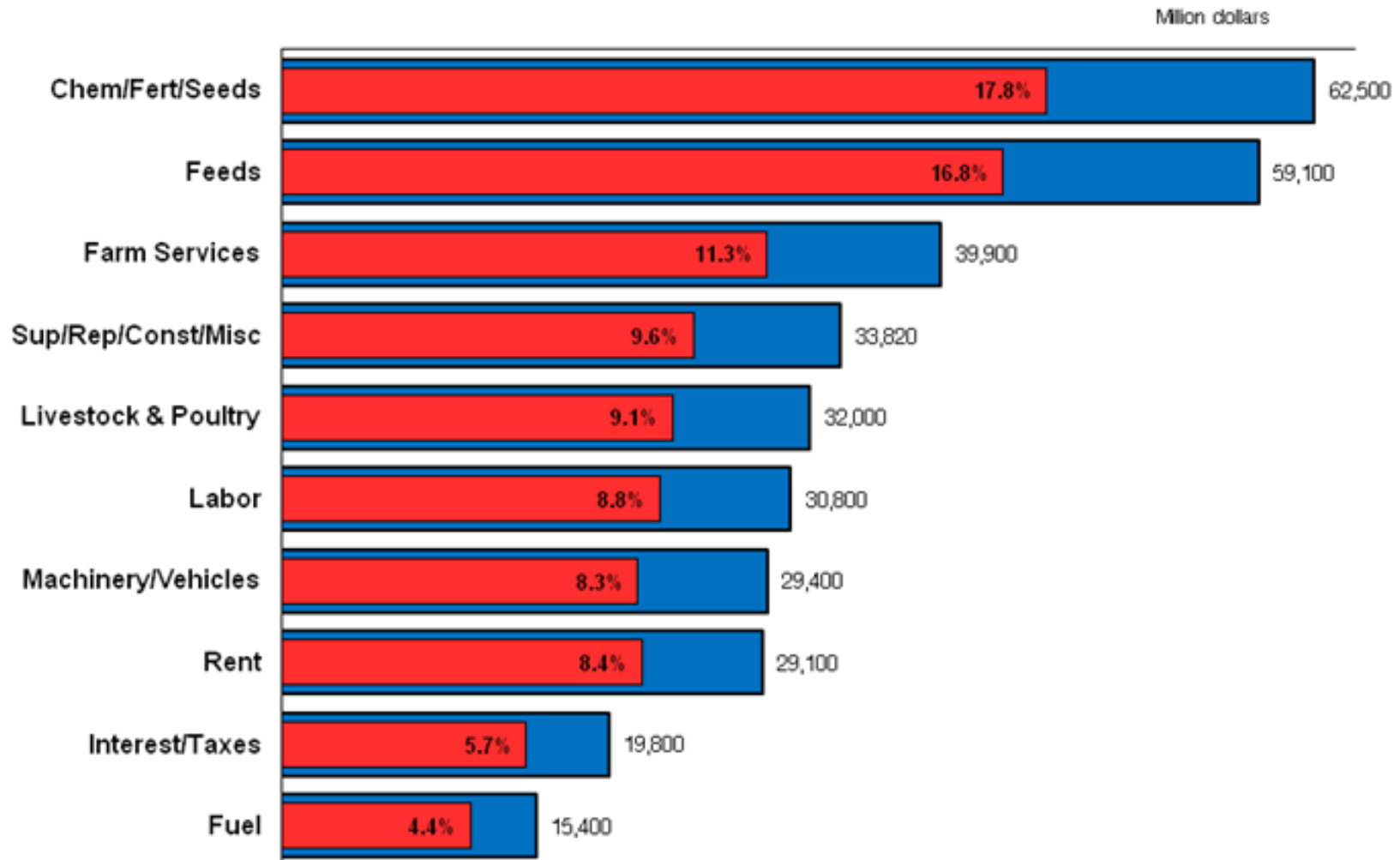
# Uses of ARMS III Data

- **Farm Financial (Net Farm Income)** reporting and forecasts
- **Custom Reports** for policy makers who affect farmers everyday
- **Special Reports** that answer questions on current hot topics
- Major information source for **Farm Bills and Ag Policy**
- Agricultural Component of **GDP**
- Part of Formulas to **Allocate Tax Dollars**
- Crop **Insurance and Disaster** damage estimates
- **Lenders, Manufacturers, Suppliers, & Retailers** decisions
- Farm **Commodity groups**, for analysis and advocacy
- **Data Summaries Available** to all through the web tool





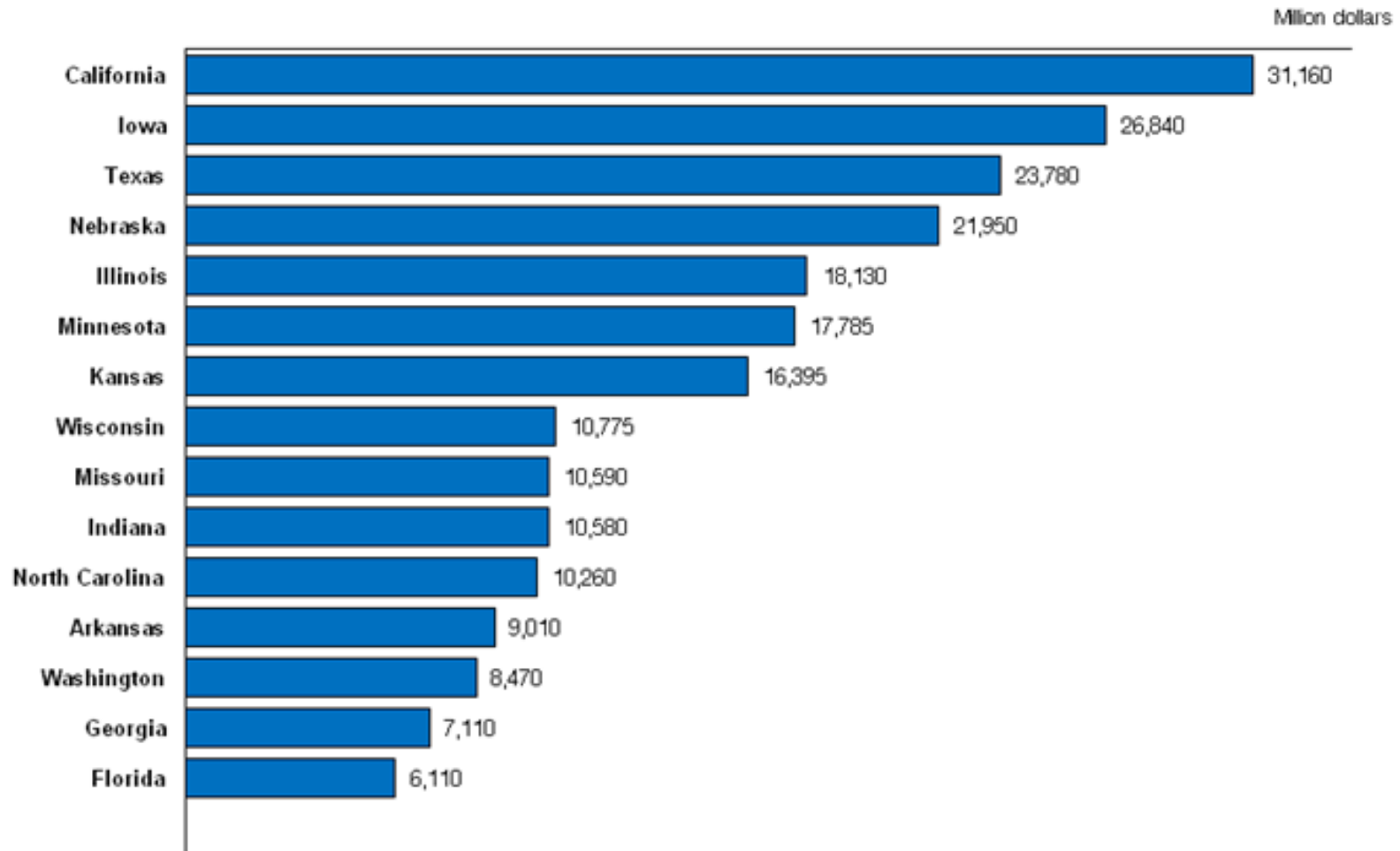
## Major Input Expenditures by Total, and Percent of Total - United States: 2012



USDA NASS – August 2013

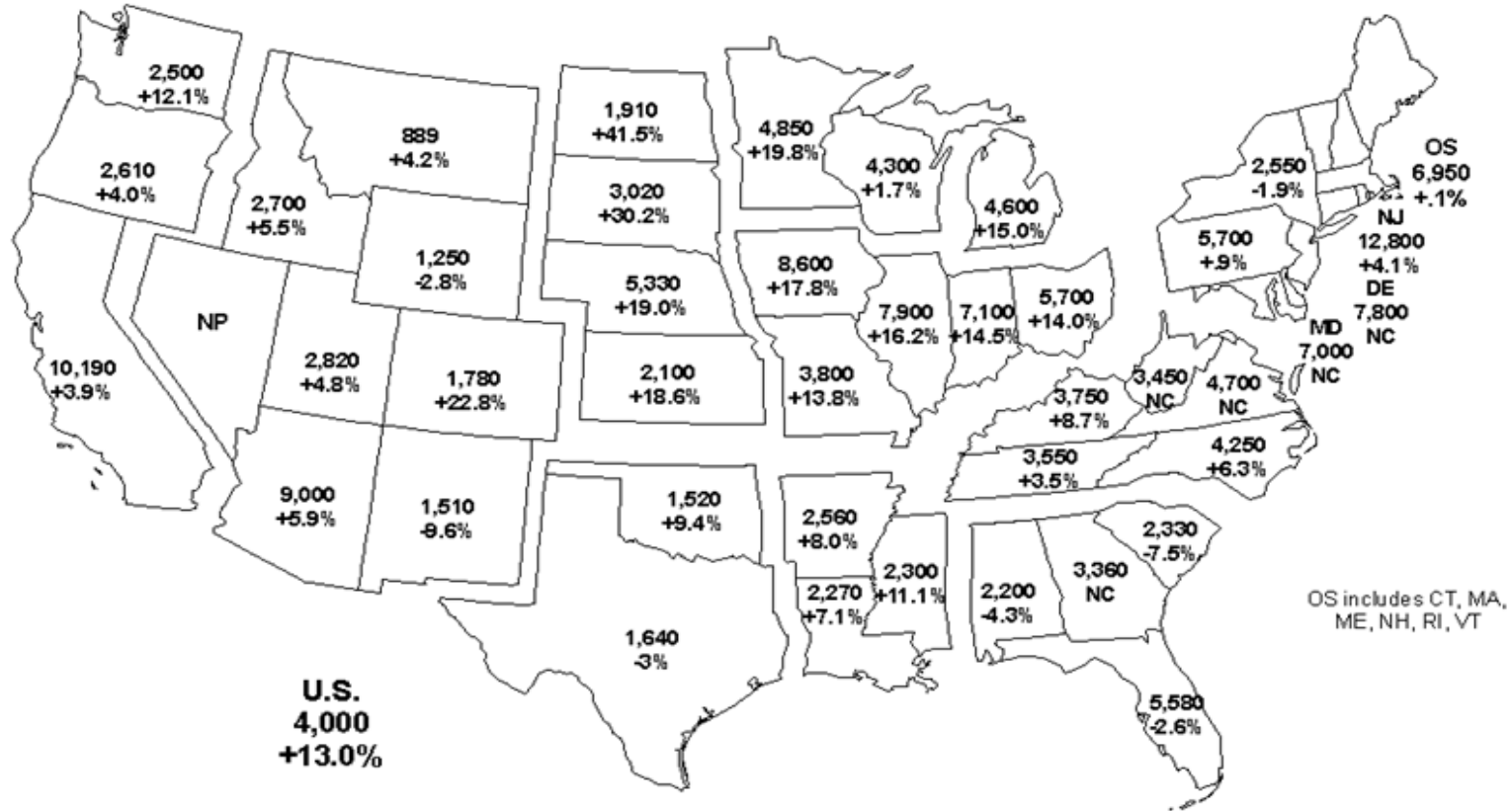


## Total Farm Production Expenditures by Leading Cash Receipts States: 2012



# 2013 Cropland Value by State

Dollars per Acre and Percent Change from 2012



USDA - NASS  
August 2, 2013

NC = No Change  
NP = Not published due to insufficient reports

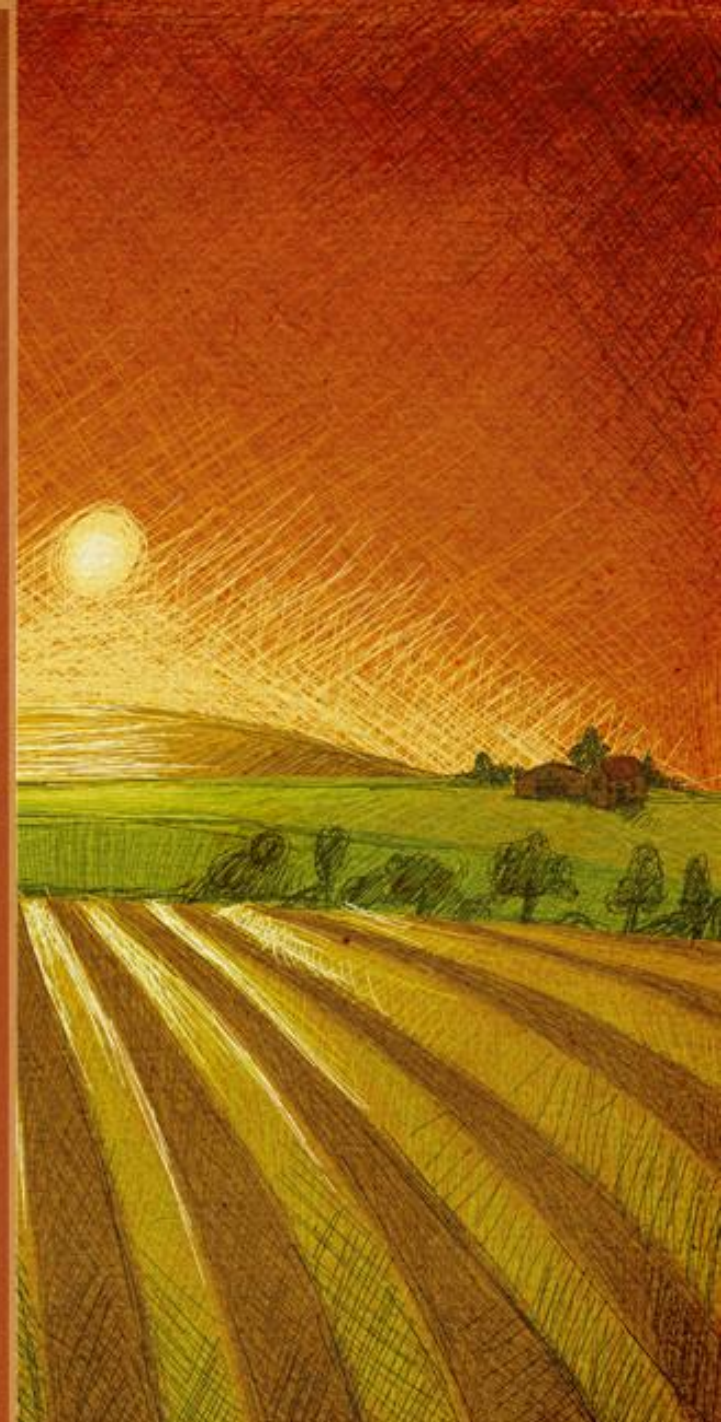


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# NUMBER OF FARMS - Iowa

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- 88,637 farms and ranches
- 4.5 percent fewer than 2007



AGRICULTURE



# Current Agricultural Industrial Report

- Cotton Spinning Industry Measurements (monthly)
  - Cotton bale consumption
  - Cotton bale stocks on hand by both warehouses and spinners
- Flour Mill Industry Measurements (quarterly)
  - Wheat consumption for flour
  - Flour production
  - Millfeed production
- Ethanol Production Industry Measurements (monthly)
  - Inputs consumption (corn, wheat, sorghum, etc.)
  - Co-products production (Distillers Dried Grains, corn oil, etc.)
- Oilseed Crushings Industry Measurements (monthly)
  - Production of crude oils (cottonseed oil, cake and meal; peanut oil, cake and meal; etc)
  - Stocks of oils, cake and meal on hand end of each month
- Oil and fats Processors Industry Measurements (monthly)
  - Consumption of fats and oils in edible and inedible products (margarine, lubricants, feed, etc)
  - Production of edible and inedible fats (feather meal, lard, tallow and grease, etc)
  - Stocks of edible and inedible fats (feather meal, lard, tallow and grease, etc)

# National Agricultural Statistics Service

## Environmental, Economics, and Demographics Branch

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