National Agricultural Statistics Service

Environmental, Economics, and Demographics Branch  
(EEDB)
# EEDB Program Areas

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<td>Farm Numbers and Land in Farms</td>
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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

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

<table>
<thead>
<tr>
<th>Index</th>
<th>May 2013</th>
<th>May 2014</th>
<th>May 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prices received by farmers</td>
<td>110</td>
<td>115</td>
<td>114</td>
</tr>
<tr>
<td>Prices paid by farmers</td>
<td>106</td>
<td>111</td>
<td>112</td>
</tr>
<tr>
<td>Ratio of prices received to prices paid</td>
<td>104</td>
<td>104</td>
<td>102</td>
</tr>
</tbody>
</table>
### 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]

<table>
<thead>
<tr>
<th>Indexes and ratios</th>
<th>1910-1914 Base</th>
<th></th>
<th>2011 Base</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>May 2013</td>
<td>April 2014</td>
<td>May 2014</td>
<td>May 2013</td>
</tr>
<tr>
<td>Prices paid by farmers for commodities, services, interest, taxes, and wage rates (PPITW)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production</td>
<td>2879</td>
<td>3014</td>
<td>3029</td>
<td>106</td>
</tr>
<tr>
<td>Feed</td>
<td>2235</td>
<td>2362</td>
<td>2377</td>
<td>107</td>
</tr>
<tr>
<td>Livestock and poultry</td>
<td>1341</td>
<td>1306</td>
<td>1327</td>
<td>122</td>
</tr>
<tr>
<td>Seeds</td>
<td>1025</td>
<td>2620</td>
<td>2840</td>
<td>97</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>3643</td>
<td>3752</td>
<td>3752</td>
<td>111</td>
</tr>
<tr>
<td>Chemicals</td>
<td>1262</td>
<td>1206</td>
<td>1241</td>
<td>105</td>
</tr>
<tr>
<td>Fuels</td>
<td>969</td>
<td>968</td>
<td>900</td>
<td>108</td>
</tr>
<tr>
<td>Supplies and repairs</td>
<td>2695</td>
<td>2668</td>
<td>2859</td>
<td>96</td>
</tr>
<tr>
<td>Autos and trucks</td>
<td>1223</td>
<td>1245</td>
<td>1251</td>
<td>104</td>
</tr>
<tr>
<td>Machinery</td>
<td>3181</td>
<td>3216</td>
<td>3223</td>
<td>103</td>
</tr>
<tr>
<td>Building materials</td>
<td>6600</td>
<td>6811</td>
<td>6838</td>
<td>108</td>
</tr>
<tr>
<td>Services and rent</td>
<td>2437</td>
<td>2477</td>
<td>2490</td>
<td>105</td>
</tr>
<tr>
<td>Services</td>
<td>(NA)</td>
<td>(NA)</td>
<td>(NA)</td>
<td>(NA)</td>
</tr>
<tr>
<td>Rent</td>
<td>(NA)</td>
<td>(NA)</td>
<td>(NA)</td>
<td>(NA)</td>
</tr>
<tr>
<td>Interest 1</td>
<td>3572</td>
<td>3684</td>
<td>3684</td>
<td>98</td>
</tr>
<tr>
<td>Taxes 2</td>
<td>6137</td>
<td>6233</td>
<td>6233</td>
<td>103</td>
</tr>
<tr>
<td>Wage rates</td>
<td>7609</td>
<td>7679</td>
<td>7679</td>
<td>106</td>
</tr>
<tr>
<td>Production, interest, taxes, and wage rates (PPITW)</td>
<td>3013</td>
<td>3108</td>
<td>3185</td>
<td>107</td>
</tr>
<tr>
<td>Family living-CPI 3</td>
<td>2213</td>
<td>2252</td>
<td>2269</td>
<td>104</td>
</tr>
<tr>
<td>Ratio (received/paid)</td>
<td>(NA)</td>
<td>(NA)</td>
<td>(NA)</td>
<td>104</td>
</tr>
<tr>
<td>Parity ratio 4</td>
<td>40</td>
<td>39</td>
<td>39</td>
<td>(NA)</td>
</tr>
<tr>
<td>Parity ratio adjusted 5</td>
<td>41</td>
<td>40</td>
<td>40</td>
<td>(NA)</td>
</tr>
<tr>
<td>PPITW adjusted for productivity 6</td>
<td>1410</td>
<td>1421</td>
<td>1424</td>
<td>(NA)</td>
</tr>
<tr>
<td>Crop sector (PPITW)</td>
<td>(NA)</td>
<td>(NA)</td>
<td>(NA)</td>
<td>105</td>
</tr>
<tr>
<td>Livestock sector (PPITW)</td>
<td>(NA)</td>
<td>(NA)</td>
<td>(NA)</td>
<td>108</td>
</tr>
<tr>
<td>Farm sector (production)</td>
<td>(NA)</td>
<td>(NA)</td>
<td>(NA)</td>
<td>112</td>
</tr>
<tr>
<td>Non-farm sector (production)</td>
<td>(NA)</td>
<td>(NA)</td>
<td>(NA)</td>
<td>104</td>
</tr>
</tbody>
</table>

(NA) Not available.

1 Interest per acre on farm real estate debt and interest rate on farm non-real estate debt.
2 Farm real estate taxes payable per acre.
3 Bureau of Labor Statistics, Consumer Price Index for all urban consumers (CPI-U), for the previous month converted by the USDA.
4 Ratio of index of prices received to PPITW (1910-1914=100).
5 Based on estimated cash receipts, from markets and government payments, the preliminary adjustment factor is 1.044 for 2014 and the revised factor is 1.041 for 2013.
6 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]

<table>
<thead>
<tr>
<th>Index</th>
<th>May 2013</th>
<th>April 2014</th>
<th>May 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Production</td>
<td>110</td>
<td>115</td>
<td>114</td>
</tr>
<tr>
<td>Crop Production</td>
<td>109</td>
<td>97</td>
<td>98</td>
</tr>
<tr>
<td>Grains and oilseed</td>
<td>115</td>
<td>92</td>
<td>91</td>
</tr>
<tr>
<td>Feed grain</td>
<td>116</td>
<td>79</td>
<td>70</td>
</tr>
<tr>
<td>Food grain</td>
<td>106</td>
<td>99</td>
<td>103</td>
</tr>
<tr>
<td>Oilseed</td>
<td>118</td>
<td>113</td>
<td>114</td>
</tr>
<tr>
<td>Fruit and tree nut</td>
<td>103</td>
<td>111</td>
<td>115</td>
</tr>
<tr>
<td>Commercial vegetable</td>
<td>103</td>
<td>102</td>
<td>100</td>
</tr>
<tr>
<td>Other crop</td>
<td>106</td>
<td>102</td>
<td>107</td>
</tr>
<tr>
<td>Livestock Production</td>
<td>112</td>
<td>132</td>
<td>131</td>
</tr>
<tr>
<td>Meat animal</td>
<td>108</td>
<td>132</td>
<td>129</td>
</tr>
<tr>
<td>Cattle</td>
<td>110</td>
<td>131</td>
<td>130</td>
</tr>
<tr>
<td>Hog</td>
<td>103</td>
<td>134</td>
<td>126</td>
</tr>
<tr>
<td>Dairy</td>
<td>98</td>
<td>126</td>
<td>123</td>
</tr>
<tr>
<td>Poultry and egg</td>
<td>136</td>
<td>141</td>
<td>143</td>
</tr>
<tr>
<td>Food Commodity</td>
<td>110</td>
<td>124</td>
<td>124</td>
</tr>
</tbody>
</table>

### 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]

<table>
<thead>
<tr>
<th>Index</th>
<th>1910 - 1914 Base</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>May 2013</td>
</tr>
<tr>
<td>Agricultural Production</td>
<td>1140</td>
</tr>
<tr>
<td>Crop Production</td>
<td>954</td>
</tr>
<tr>
<td>Livestock Production</td>
<td>1295</td>
</tr>
</tbody>
</table>
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
Prices Received for Corn by Month – United States

Dollars per bushel


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

Percent

120
110
100
90
80
70
60


All Farms
Crop Farms
Livestock Farms

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

- Chem/Fert/Seeds: $62,500 (17.8%)
- Feeds: $59,100 (16.8%)
- Farm Services: $39,900 (11.3%)
- Sup/Rep/Const/Misc: $33,820 (9.6%)
- Livestock & Poultry: $32,000 (9.1%)
- Labor: $30,800 (8.8%)
- Machinery/Vehicles: $29,400 (8.3%)
- Rent: $29,100 (8.4%)
- Interest/Taxes: $19,800 (5.7%)
- Fuel: $15,400 (4.4%)
Total Farm Production Expenditures by Leading Cash Receipts States: 2012

- California: 31,160 million dollars
- Iowa: 26,840 million dollars
- Texas: 23,780 million dollars
- Nebraska: 21,950 million dollars
- Illinois: 18,130 million dollars
- Minnesota: 17,785 million dollars
- Kansas: 16,395 million dollars
- Wisconsin: 10,775 million dollars
- Missouri: 10,590 million dollars
- Indiana: 10,580 million dollars
- North Carolina: 10,260 million dollars
- Arkansas: 9,010 million dollars
- Washington: 8,470 million dollars
- Georgia: 7,110 million dollars
- Florida: 6,110 million dollars
2013 Cropland Value by State

Dollars per Acre and Percent Change from 2012

USDA - NASS
August 2, 2013

US includes CT, MA, ME, NH, RI, VT
NC = No Change
NP = Not published due to insufficient reports
NUMBER OF FARMS - Iowa

• 88,637 farms and ranches
• 4.5 percent fewer than 2007
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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Environmental, Economics and Demographics Branch
Statistics Division