



17 November 2016

# **September Agricultural Price Index**

The Agricultural Price Index (API) measures price changes in agricultural outputs and inputs for the UK.

The output series reflects the price farmers receive for their products, also referred to as farm gate price. Information is collected for all major crops (for example wheat and potatoes) and on livestock and livestock products (for example sheep, milk and eggs).

The input series reflects the price farmers pay for goods and services. The series is in two groups: goods and services currently consumed; and goods and services contributing to investment. Goods and services currently consumed refer to items that are used up in the production process, for example fertiliser or seed. Goods and services contributing to investment relate to items that are required but not consumed in the production process, such as tractors or buildings.

# **Key points**

In September 2016, the monthly price index for all outputs was 2.3% higher than September 2015 and the price index for all inputs was 1.4% lower. Figure 1 shows the monthly price indices for total agricultural inputs and outputs from January 2010 to September 2016.

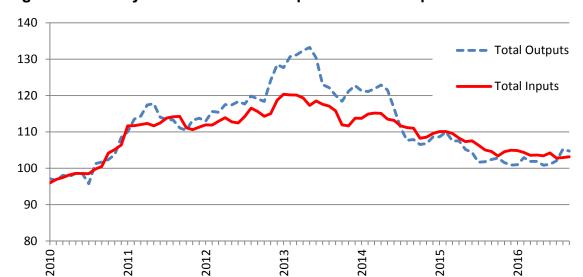


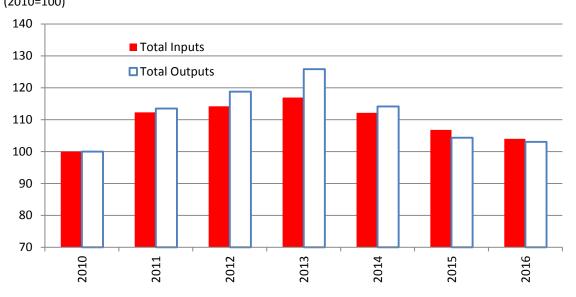
Figure 1: Monthly indices for total Outputs and total Inputs

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Figure 2 shows a comparison of the average annual price indices for total agricultural inputs and outputs from January 2010 to September 2016.

Figure 2: Comparison of annual average indices for total Inputs and total Outputs (2010=100)



# **Outputs**

Overall the price index for all crop products was 5.1% higher in September 2016 compared to September 2015.

The price index for all crop products fell 3.4% between August and September 2016 compared to a 1.5% fall between the same two months a year earlier.

The low cereal price levels of 2016 continued their upturn and overall the cereal price index was 9.7% higher in September 2016 compared to September 2015.

The cereal price index rose 2.1% between August and September 2016 boosted by the 4.7% rise in the barley price index, and compares to a 3.6% fall between the same two months last year.

A return to a more usual harvest level and the low value of sterling have both bolstered cereal prices.

The oilseed rape index was 18% higher in September 2016 compared to September 2015. Low yields from a lower than usual planted area has led to higher prices compared to the previous year.

Overall the price index for animals and animal products was virtually unchanged (0.1% higher) in September 2016 compared to September 2015.

The pig price index was 7.6% higher in September 2016 compared to September 2015. A reduction in domestic supply, good export demand and weak sterling have all helped support the UK price recently and the price index rose 3.3% between August and September 2016.

In September 2016 the sheep and lamb price index was 14% higher than in September 2015.

The number of lambs coming onto the markets fell but prices fell as demand dropped. The price index fell 3.1% between August and September 2016 compared to a 2.5% rise between the same two months last year.

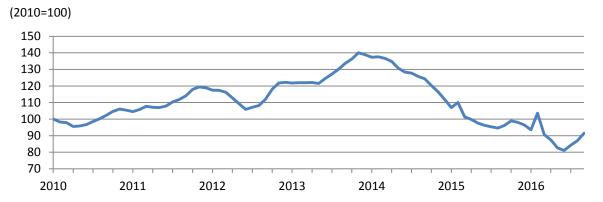
The price index for animal products was 6.3% lower in September 2016 compared to the same time last year and rose 4.4% between August and September 2016. This compares to a 1.4% rise between the same two months a year earlier.

Milk production fell in August in line with the seasonal trend seen in previous years and was at the lowest level since February 2013.

The price index for milk rose by 5.2% between August and September 2016 and was 1.6% lower when compared to September 2015.

Figure 3 shows the price index for milk between January 2010 and September 2016. For more detailed information on milk prices please see the link below to our website.https://www.gov.uk/government/collections/milk-prices-and-composition

Figure 3: Milk price index



### Inputs

The price index for fertilisers and soil improvers was 19.2% lower in September 2016 compared to the same month last year. Prices have fallen steadily across 2016 as falling demand has put pressure on the industry. The price index rose 0.6% in September 2016 compared to August 2016 aided by the weak value of sterling.

#### Data uses

Farmers use the agricultural price index to help set prices for their output and monitor the price paid for inputs. Analysts in Government, industry and academia use the data to assess the impact that price changes have on industry and consumers.

The Office of National Statistics (ONS) uses API data in the production of the Producer Price Index (PPI), which is one of the key measures of inflation.

#### Methodology

Defra collect prices from a wide variety sources to produce the monthly API. This includes data from our own surveys, information from the Agricultural, Horticultural Development Board (AHDB), and the ONS. For some items we only receive quarterly or annual data, for example, electricity prices. When no new data are available the data for the previous month is carried forward until new data becomes available.

The methodology used is described in the <u>Handbook for EU Agricultural Prices</u> and is standard across the EU.

#### Weights

Each item is assigned a weight which reflects their contribution to the overall index. The weights are based upon the value of the item, for example, if the value of animal feed is three times more than fertilisers then the weight for animal feed will be three times more than the fertiliser.

The overall weight for an item is either split equally between the 12 months or reflects the yearly pattern of sales or purchases. For example, if the sales of apples in October are double June sales then October weight is double the June weight for apples. Some outputs are seasonal, for example strawberries, and these will only have a weight for the months they are in season.

To note all weights are based upon base year data which is 2010.

| Table 1 Index of Agricultural Outputs UK (2010=100)                                 |   |   |  |  |  |  |  |  | Yearly                                    | Mor                                    | thly                                   |
|---|---|---|--|--|--|--|--|--|---|--|--|
|   | Aug-15                                  | Sep-15                                  | Apr-16                                   | May-16                                   | Jun-16                                   | Jul-16                                   | Aug-16                                   | Sep-16                                   | September<br>2015 to<br>September<br>2016 | August 2016 -<br>September<br>2016     | August 2015<br>September<br>2015       |
| All Outputs   | 101.8                                   | 102.4                                   | 101.9                                    | 100.8                                    | 101.1                                    | 102.0                                    | 105.2                                    | 104.7                                    | 2.3%                                      | -0.4%                                  | 0.6%                                   |
| Crop products   | 100.9                                   | 99.4                                    | 106.5                                    | 105.6                                    | 105.4                                    | 102.4                                    | 108.1                                    | 104.4                                    | 5.1%                                      | -3.4%                                  | -1.5%                                  |
| Cereals<br>Wheat<br>Barley<br>Oats  | 97.2<br>96.6<br>97.4<br>106.0           | 93.7<br>92.2<br>96.1<br>106.1           | 95.2<br>93.1<br>101.3<br>104.8           | 95.9<br>93.1<br>106.2<br>113.2           | 95.7<br>92.9<br>106.4<br>116.0           | 97.3<br>96.0<br>98.4<br>115.8            | 100.7<br>99.9<br>101.2<br>109.6          | 102.8<br>100.9<br>106.0<br>114.6         | 9.7%<br>9.5%<br>10.3%<br>8.0%             | 2.1%<br>1.0%<br>4.7%<br>4.6%           | -3.6%<br>-4.6%<br>-1.3%<br>0.1%        |
| Potatoes  | 132.6                                   | 116.9                                   | 151.6                                    | 166.5                                    | 175.0                                    | 107.5                                    | 133.7                                    | 125.6                                    | 7.4%                                      | -6.0%                                  | -11.9%                                 |
| Industrial Crops<br>Oilseed Rape<br>Sugar Beet                                      | 95.9<br>93.4<br>115.6                   | 100.3<br>94.3<br>115.6                  | 96.9<br>98.5<br>93.4                     | 99.3<br>100.8<br>93.4                    | 100.8<br>102.7<br>93.4                   | 98.8<br>99.4<br>93.4                     | 103.3<br>104.5<br>93.4                   | 104.0<br>111.5<br>93.4                   | 3.7%<br>18.3%<br>-19.2%                   | 0.7%<br>6.7%<br>0.0%                   | 4.6%<br>0.9%<br>0.0%                   |
| Forage plants   | 89.7                                    | 88.9                                    | 93.8                                     | 94.0                                     | 94.1                                     | 94.9                                     | 96.7                                     | 95.4                                     | 7.3%                                      | -1.4%                                  | -0.9%                                  |
| Fresh Vegetables  | 98.1                                    | 96.4                                    | 115.6                                    | 112.2                                    | 106.6                                    | 109.3                                    | 109.4                                    | 99.3                                     | 3.0%                                      | -9.2%                                  | -1.7%                                  |
| Fresh Fruit   | 105.7                                   | 106.9                                   | 105.2                                    | 86.9                                     | 85.4                                     | 103.0                                    | 125.9                                    | 110.8                                    | 3.6%                                      | -12.1%                                 | 1.1%                                   |
| Flowers and plants  | 106.3                                   | 105.4                                   | 106.4                                    | 106.1                                    | 107.3                                    | 107.3                                    | 105.3                                    | 103.9                                    | -1.5%                                     | -1.4%                                  | -0.8%                                  |
| Other crop products   | 102.9                                   | 102.9                                   | 102.9                                    | 102.9                                    | 102.9                                    | 102.9                                    | 102.9                                    | 102.9                                    | 0.0%                                      | 0.0%                                   | 0.0%                                   |
| Animals and animal products   | 102.6                                   | 104.9                                   | 99.2                                     | 97.1                                     | 97.6                                     | 101.6                                    | 102.5                                    | 105.0                                    | 0.1%                                      | 2.5%                                   | 2.3%                                   |
| Animals (for slaughter & export) Cattle and calves Pigs Sheep and lambs All Poultry | 106.0<br>126.6<br>92.7<br>88.4<br>100.2 | 108.7<br>126.2<br>91.6<br>90.6<br>107.8 | 105.2<br>116.1<br>79.4<br>109.7<br>103.6 | 106.9<br>118.8<br>81.4<br>110.7<br>103.2 | 108.3<br>121.2<br>84.8<br>109.0<br>103.6 | 110.7<br>123.8<br>90.1<br>108.1<br>106.6 | 111.9<br>126.8<br>95.4<br>106.9<br>106.3 | 112.8<br>125.9<br>98.6<br>103.6<br>110.6 | 3.8%<br>-0.3%<br>7.6%<br>14.3%<br>2.6%    | 0.8%<br>-0.8%<br>3.3%<br>-3.1%<br>4.1% | 2.5%<br>-0.3%<br>-1.2%<br>2.5%<br>7.6% |
| Animal products Milk Eggs   | 97.8<br>94.6<br>118.3                   | 99.2<br>96.1<br>118.3                   | 89.3<br>87.5<br>100.3                    | 85.0<br>82.6<br>100.3                    | 83.8<br>81.1<br>100.3                    | 86.6<br>84.2<br>100.3                    | 89.1<br>87.0<br>100.3                    | 92.9<br>91.5<br>100.3                    | -6.3%<br>-4.8%<br>-15.2%                  | 4.4%<br>5.2%<br>0.0%                   | 1.4%<br>1.6%<br>0.0%                   |

| Table 2 Index of Agricultural Inputs UK (2010=100)                 |                        |                        |                        |                         | Jun-16 .                | Jul-16 <i>A</i>         | Aug-16                  | Sep-16                  | Yearly<br>September<br>2015 to<br>September<br>2016 | Monthly                            |                                    |
|--|------------------------|------------------------|------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|---|------------------------------------|------------------------------------|
|  | Aug-15                 | Sep-15                 | Apr-16                 | May-16                  |                         |                         |                         |                         |   | August 2016 -<br>September<br>2016 | August 2015 -<br>September<br>2015 |
| All Inputs   | 105.0                  | 104.6                  | 103.6                  | 103.4                   | 104.2                   | 102.8                   | 102.9                   | 103.1                   | -1.4%   | 0.2%                               | -0.4%                              |
| All goods and services currently consumed in agriculture           | 104.2                  | 103.7                  | 102.4                  | 102.1                   | 102.9                   | 101.2                   | 101.4                   | 101.7                   | -1.9%   | 0.3%                               | -0.5%                              |
| Seeds  | 94.2                   | 93.7                   | 99.4                   | 99.1                    | 99.1                    | 95.4                    | 97.1                    | 96.0                    | 2.4%  | -1.2%                              | -0.5%                              |
| Energy and lubricants  | 94.6                   | 95.0                   | 88.6                   | 87.9                    | 91.1                    | 93.3                    | 93.3                    | 98.3                    | 3.5%  | 5.4%                               | 0.4%                               |
| Fertilisers and soil improvers                                     | 97.2                   | 97.4                   | 83.8                   | 82.4                    | 79.6                    | 76.1                    | 78.3                    | 78.8                    | -19.2%  | 0.6%                               | 0.2%                               |
| Plant protection products  | 126.3                  | 105.2                  | 103.9                  | 101.9                   | 99.0                    | 97.8                    | 127.0                   | 105.0                   | -0.2%   | -17.3%                             | -16.7%                             |
| Veterinary services  | 107.7                  | 107.6                  | 108.0                  | 108.0                   | 108.0                   | 108.1                   | 108.0                   | 108.1                   | 0.5%  | 0.1%                               | -0.1%                              |
| Animal feedingstuffs Straight feedingstuffs Compound feedingstuffs | 106.2<br>97.4<br>112.8 | 106.3<br>95.2<br>113.0 | 103.0<br>96.8<br>106.9 | 103.6<br>101.2<br>105.5 | 105.0<br>105.0<br>105.0 | 106.3<br>107.4<br>105.4 | 104.6<br>103.6<br>105.3 | 104.3<br>103.2<br>104.9 | -2.0%<br>8.4%<br>-7.1%                              | -0.3%<br>-0.4%<br>-0.4%            | 0.1%<br>-2.2%<br>0.1%              |
| Maintenance of Materials   | 110.7                  | 110.6                  | 111.8                  | 112.2                   | 112.4                   | 112.2                   | 112.3                   | 112.6                   | 1.7%  | 0.3%                               | 0.0%                               |
| Maintenance of Buildings   | 108.7                  | 107.9                  | 107.9                  | 108.3                   | 109.0                   | 109.3                   | 110.1                   | 109.3                   | 1.3%  | -0.7%                              | -0.7%                              |
| Other goods and services   | 109.1                  | 109.0                  | 110.9                  | 111.0                   | 111.0                   | 111.3                   | 111.5                   | 111.4                   | 2.2%  | -0.1%                              | -0.1%                              |
| Goods and services contributing to investment                      | 109.7                  | 109.6                  | 110.2                  | 110.2                   | 110.4                   | 110.9                   | 111.2                   | 111.0                   | 1.3%  | -0.1%                              | -0.1%                              |
| Materials  | 110.1                  | 110.2                  | 110.6                  | 110.5                   | 110.6                   | 111.3                   | 111.4                   | 111.4                   | 1.1%  | 0.0%                               | 0.0%                               |
| Buildings  | 107.0                  | 106.5                  | 106.7                  | 107.0                   | 107.5                   | 107.7                   | 108.3                   | 107.8                   | 1.2%  | -0.5%                              | -0.5%                              |
| Other (Engineering and soil improvement operations)                | 113.0                  | 113.1                  | 115.1                  | 115.4                   | 115.4                   | 115.6                   | 116.0                   | 115.8                   | 2.4%  | -0.2%                              | 0.1%                               |