



# Total Income from Farming in the United Kingdom Second estimate for 2018

This release presents the second estimate of Total Income from Farming (TIFF) for the United Kingdom for 2018. This is a scheduled and improved estimate based on additional data that replaces the figures published in May 2019. Details are provided in the revisions section of this document on page 10. Estimates for earlier years have also been revised slightly due to the availability of additional data. A forecast estimate for 2019 will be published <a href="here">here</a> on 19<sup>th</sup> December.

Total Income from Farming is the total profit from all UK farming businesses on a calendar year basis. It measures the return to all entrepreneurs for their management, labour and capital invested.

## Second estimate figures for 2018 compared to 2017, in current prices, show:

- Total Income from Farming fell by £971 million (17%) to £4,644 million
- Agriculture contributed £9,548 million or 0.51% to the national economy (Gross Value Added), a decrease of £651 million (6%) on the year.

#### The main drivers of these changes are:

- An increase of £538 million (2%) in gross output to £26,562 million
- An increase of £1,189 million (8%) in the value of intermediate consumption to £17.014 million
  - Crop output value rose by 0.9% to £9,265 million. The cold, wet spring followed by the dry, hot summer contributed to lower yields of key crops however better prices helped offset production falls.
  - The value of total livestock output rose by 2% to £14,741 million. Prices were generally higher but the challenging weather conditions affected volumes; the late cold spring disrupted lambing and the hot, dry summer led to poor grass growth and difficulties feeding livestock.
  - In general all intermediate consumption costs rose, with fuel, feed and fertiliser costs showing the largest increases.

Enquiries on this publication to: Helen Mason, Rm 202 Foss House, Kings Pool, 1-2 Peasholme Green, York, YO1 7PX Tel: 0208 026 6256 email: <a href="mailto:farmAccounts@defra.gov.uk">farmAccounts@defra.gov.uk</a>. Media enquiries to: Tel: 0345 051 8486. A National Statistics publication. National Statistics are produced to high professional standards. They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political interference. For general enquiries about National Statistics, contact the National Statistics Public Enquiry Service: tel. 0845 601 3034 email <a href="mailto:info@statistics.gov.uk">info@statistics.gov.uk</a>. You can find National Statistics on the internet at <a href="mailto:www.statistics.gov.uk">www.statistics.gov.uk</a>.

#### Income trends in recent years

The key drivers of agricultural income include the volume of production, commodity prices and the cost of inputs. These are themselves driven by a range of factors such as the weather, exchange rates, oil price and global supply and stocks of commodities. As a result, UK agricultural income tends to be volatile and fluctuate from year to year.

Incomes have generally followed an overall upward trend from the year 2000 (Figure 1). However, in 2015 TIFF fell sharply in spite of high levels of production that year, driven by lower commodity prices and a less favourable exchange rate (stronger pound compared to euro). In 2016 the exchange rate improved (pound weakened) but a poor harvest and continued low commodity prices kept income low. In 2017, TIFF increased to the highest point in 4 years as a result of a favourable combination of a weaker pound, strong commodity prices and high levels of production.

In 2018 incomes fell from this high level in spite of the total value of production remaining high with lower crop yields being more than offset by strong commodity prices. However, the price of key inputs (particularly energy, fertilisers and feed) increased sharply, pushing up the costs of production. As a result incomes fell by 19% to £4.6 billion.

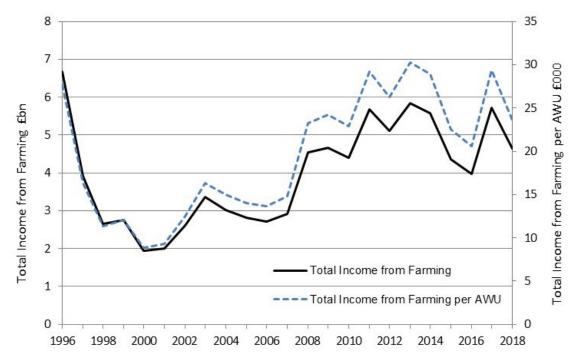


Figure 1 Agriculture industry income trends in the United Kingdom<sup>1</sup> (in real terms)

Total Income from Farming per Annual Work Unit of entrepreneurial labour is an alternative measure of income that takes into account the labour used to produce that income and allows comparisons to be made with other countries. Income per AWU follows a very similar pattern to Total Income from Farming, but has performed better from the year 2000 onwards owing to a decline in the number of farmers and other unpaid workers.

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<sup>&</sup>lt;sup>1</sup> The underlying data for this chart can be found <u>here</u>.

# Detailed comparison between current year and previous year (2018 compared to 2017)

Year-on-year comparisons are made on the basis of current prices which have not been adjusted to take into account inflation. Values are generally expressed in millions of pounds  $(\mathfrak{L} m)$ .

The following commentary refers to table 2, detailed production and income accounts from the aggregate agricultural accounts.

#### **Headline figures**

In 2018 Total Income from Farming fell by £971m to £4,644m, a 17% decrease on 2017. The main contributors to this decrease are the rise in animal feed (+£560m), goods and services (+£252m), fertiliser (+£22m), energy and labour costs (+£143m and +£76m respectively). Conversely the output value of potatoes fell by £220 m and oilseed rape by £108m.

Gross value added at basic prices, which identifies agriculture's contribution to the Gross Domestic Product (GDP), fell by 6% (£651m) to £9,548m. In 2018 agriculture represented 0.51% of the national economy.

#### **Outputs: Crops**

Overall output of crops value rose by £81m or 0.9% to £9,265m.

Cereal harvests were down on last year. Whilst cropped area changed little on the year, yields fell notably as a result of the prolonged dry, hot weather. The value of production was boosted by better prices offsetting the falls in production.

The value of wheat rose by £37m to £2,011m. Lower yields and only a slight increase in planted area resulted in volumes down by 8.7%, better prices, up by 11.5%, compensated for the fall in volume and boosted the value.

Production of barley was down well below the 5 year average as a result of decreases in both planted area and yield. However the overall value rose by £67m to £938 m as a result of higher prices (up 18%).

Oilseed rape fell in value by £108m to £654m, driven by lower production (-7.1%) and price (-7.6%). Yields fell back to more average levels following the high of 2017 whilst planted area increased by 3.8%.

The value of sugar beet fell by £15m to £214m. Whilst planted area was 2.9% higher, yields were 16.9% down on the 2017 record high resulting in a 15% fall in production.

Potatoes fell in value by £220m to £641m. Both reduced planted area (-3.2%) and lower yields (-15%) affected by the summer drought contributed to a 19% fall in production. Price

fell by 7.8%, with the price recovery throughout the year failing to offset the low prices at the start of the year.

The value of vegetables was virtually unchanged at £1,421m as lower volumes (-9.6%) affected by the challenging weather conditions were offset by higher prices (+10%). Fruit fared slightly better and despite a late start to the season, the hot, dry weather resulted in an early harvest with production slightly up on the year (+1.5%). Overall the value of fruit rose by £24m to £776m with price up 1.6%.

The value of other crop products, including seeds and straw increased significantly by £320m to £759m. Strong demand for straw from the livestock industry resulted in an increase in both production and price, however this higher value is reflected in the costs livestock farmers incurred (shown in other goods and service costs).

# **Outputs: Livestock**

Overall the value of total livestock output was 2.2% higher at £14,741m.

The value of livestock primarily for meat rose by £163m with increases seen in the sheep and poultry sectors.

The value of cattle meat decreased by £36m to £2,952m, production also fell 2.1% on the year and price rose by 0.9%.

Pig meat fell in value by £73m to £1,253m. Price fell by 6.9%, as result of over production early in the year and continued downward pressure on price in the autumn/winter. In spite of this the 2018 price was still around 14% higher than 2016. Production levels rose by 1.5% although carcase weights remained very similar to 2017.

The value of sheep meat rose by £60m to £1,261m, price driven as volumes were lower. The cold late spring affected lambing and the hot dry summer affected finishing and as a result production decreased by 3.3%. Price was the highest seen in recent years, with the continued weakness of the pound supporting exports and boosting prices.

Poultry meat rose in value by £208m to £2,626m, the highest recorded value. Continued expansion of the sector to meet demand boosted production (+5.7%) with price 2.7% higher than the previous year.

The value of milk increased by £136m to £4,487m, primarily price driven. Despite a slight fall in dairy cow numbers and the dry weather conditions affecting grass growth production levels were maintained. The average price of milk in 2018 (calendar year) was 29.26 pence per litre (ppl), 0.56 ppl (1.9%) higher than 2017.

The value of eggs rose by £17m to £641m, entirely volume driven as throughput at egg packing stations rose by 5.1%, putting downward pressure on price (-2.2%).

#### Intermediate consumption

The total cost of intermediate consumption rose by £1,189m to £17,014m. All intermediate consumption costs rose with the exception of plant protection products. Animal feed, other goods and services, energy and fertiliser showing the largest absolute increases.

The cost of animal feed rose by £560m to £5,571m, a combination of increased volumes and feed price. The extreme weather conditions led to greater demand by the livestock sector as the late, cold spring kept livestock inside for longer and the hot summer affected forage and grass growth. The higher cereal prices kept the annual average feed price up on the year.

Energy costs rose by £143m to £1,377m. Global oil prices continued to rise in 2018, pushing up energy costs, however generally milder weather conditions and efficiency savings helped reduce usage on farm.

Fertiliser costs rose by £22m to £1,252m, a consequence of the higher oil price as usage was down.

Other goods and service costs rose by £252m to £3,497m reflecting the increased demand for straw by the livestock industry.

#### **Compensation of employees**

The total value of compensation to employees was £2,703m, a rise of £76m. In line with the national living wage increase, average labour costs were higher whilst labour volume was slightly down on the previous year. In 2018 agriculture provided 1.17% of jobs in the United Kingdom.

#### **Direct payments**

Direct payments, including payments on product (worth £46m), rose to £3,313m. The value of the Basic Payment Scheme was just slightly less than 2017 payments at £2,734m, due to the stable exchange rate. In 2018 agri-environment payments were around £26m higher than 2017.

Table 2 Aggregate Agricultural Accounts: Current price production and income accounts for the United Kingdom

| £ million   |                             |        |        | Cale            | ndar years        |
|---|-----------------------------|--------|--------|-----------------|-------------------|
|   |                             | 2017   | 2018   | Change<br>17-18 | % Change<br>17-18 |
| 1 Output of cereals                               |                             | 2 947  | 3 069  | 121             | 4%                |
| of which:   | wheat                       | 1 973  | 2 011  | 37              | 2%                |
|   | barley                      | 871    | 938    | 67              | 8%                |
|   | oats                        | 98     | 114    | 16              | 16%               |
| 2 Output of industrial crops                      |                             | 1 191  | 1 029  | - 162           | -14%              |
| of which:   | oilseed rape                | 762    | 654    | - 108           | -14%              |
|   | protein crops               | 153    | 113    | - 40            | -26%              |
|   | sugar beet                  | 229    | 214    | - 15            | -6%               |
| 3 Output of forage plants                         |                             | 205    | 233    | 29              | 14%               |
| 4 Output of vegetables and horticultural products |                             | 2 790  | 2 759  | - 31            | -1%               |
| of which:   | fresh vegetables            | 1 427  | 1 421  | - 6             | 0%                |
|   | plants and flowers          | 1 363  | 1 338  | - 25            | -2%               |
| 5 Output of po                                    | tatoes (including seeds)    | 860    | 641    | - 220           | -26%              |
| 6 Output of fruit                                 |                             | 752    | 776    | 24              | 3%                |
| 7 Output of other crop products incl. seeds       |                             | 439    | 759    | 320             | 73%               |
| •   | Total crop output (sum 1-7) |        | 9 265  | 81              | 1%                |
| 8 Output of livestock                             |                             | 9 352  | 9 490  | 138             | 1%                |
| primarily for m                                   |                             | 8 164  | 8 327  | 163             | 2%                |
| of which:   | cattle                      | 2 988  | 2 952  | - 36            | -1%               |
|   | pigs                        | 1 326  | 1 253  | - 73            | -6%               |
|   | sheep                       | 1 202  | 1 261  | 60              | 5%                |
|   | poultry                     | 2 418  | 2 626  | 208             | 9%                |
| gross fixed capital formation                     |                             | 1 187  | 1 163  | - 25            | -2%               |
| of which:   | cattle                      | 674    | 677    | 2               | 0%                |
|   | pigs                        | 6      | 5      | - 1             | -17%              |
|   | sheep                       | 251    | 193    | - 57            | -23%              |
|   | poultry                     | 257    | 288    | 31              | 12%               |
| 9 Output of livestock products                    |                             | 5 074  | 5 251  | 177             | 3%                |
| of which:   | milk                        | 4 351  | 4 487  | 136             | 3%                |
|   | eggs                        | 624    | 641    | 17              | 3%                |
| Total livestock output (8+9)                      |                             | 14 426 | 14 741 | 315             | 2%                |
|   | cultural activities         | 1 144  | 1 225  | 81              | 7%                |
| 11 Inseparable non-agricultural activities        |                             | 1 225  | 1 285  | 61              | 5%                |
| 12 Output (at market prices) (sum 1 to 11)        |                             | 25 978 | 26 516 | 538             | 2%                |
| 13 Total subsidies (less taxes) on product        |                             | 46     | 46     | 0               | 0%                |
| 14 Gross output at basic prices (12+13)           |                             | 26 024 | 26 562 | 538             | 2.1%              |

continued

income accounts for the United Kingdom

Table 2 (continued) Aggregate Agricultural Accounts: Current price production and

£ million Calendar years % Change Change 2017 2018 17-18 17-18 Intermediate consumption 15 Seeds 735 761 26 4% 16 Energy 1 233 1 377 143 12% of which: electricity and fuels for heating 403 437 35 9% motor and machinery fuels 831 939 108 13% 17 Fertilisers 1 230 1 252 22 2% 18 Plant protection products 977 965 - 12 -1% 19 Veterinary expenses 467 474 7 1% 20 Animal feed 5 011 5 571 560 11% of which: compounds 3 099 3 432 333 11% straights 1 296 1 4 1 6 120 9% feed produced & used on farm 616 723 107 17% 21 Total maintenance 1 660 1 770 110 7% of which: materials 1 003 1 063 6% 60 buildings 657 8% 708 50 22 Agricultural services 1 144 7% 1 225 81 23 FISIM 124 123 0% 0 24 Other goods and services 3 245 8% 3 4 9 7 252 25 Total intermediate consumption 15 826 17 014 1 189 8% (sum 15 to 24) 26 Gross value added at market prices (12-25) 10 152 9 501 -6% - 651 27 Gross value added at basic prices (14-25) 10 198 9 548 - 651 -6% 28 Total consumption of Fixed Capital 4 124 4 350 226 5% of which: equipment 1 894 2 0 1 9 125 7% buildings 1 013 1 043 30 3% livestock 1 217 1 287 70 6% cattle 694 751 58 8% 5 - 1 -18% pigs 4 sheep 256 265 9 3% poultry 261 5 2% 266 29 Net value added at market prices (26-28) 5 152 6 029 - 877 -15% 30 Net value added at basic prices (27-28) 6 075 5 198 - 877 -14% 31 Other taxes on production - 96 - 98 - 2 2% 32 Other subsidies on production 3 250 3 266 16 0% 33 Net value added at factor cost (30+31+32) 9 229 8 366 - 863 -9% 34 Compensation of employees 2 627 2 703 76 3% 35 Rent 571 -1% 566 - 6 36 Interest 9% 416 454 38 37 Total income from farming (33-34-35-36) 5 615 4 644 -17% - 971

## Aggregate balance sheet for the United Kingdom agricultural industry

Table 3 presents the agricultural balance sheet which values the assets and liabilities for agriculture at the end of each calendar year and estimates the net worth of the industry. Overall net worth is estimated to be £255 billion at December 2018, just slightly ahead of 2017. The value of farmland is estimated to rise by 2%, land area increases somewhat offsetting the variations in price across both land type and region. Total liabilities are expected to be 2% higher as lending to UK agriculture continues to increase.

Table 3: Aggregate balance sheet for the United Kingdom agricultural industry

| £ million  | As at December each year |         |         |          |
|--|--------------------------|---------|---------|----------|
|  | 2015                     | 2016    | 2017    | 2018 (p) |
| At current prices                                |                          |         |         |          |
| Assets   |                          |         |         |          |
| Fixed (a):                                       |                          |         |         |          |
| Land   | 227 107                  | 224 649 | 212 326 | 216 836  |
| Buildings, plant, machinery and vehicles         | 33 731                   | 34 609  | 36 156  | 37 433   |
| Breeding livestock                               | 5 780                    | 6 557   | 6 297   | 6 190    |
| Total fixed                                      | 266 618                  | 265 814 | 254 778 | 260 459  |
| Current:   |                          |         |         |          |
| Trading livestock                                | 4 207                    | 4 211   | 4 358   | 4 088    |
| Crops and stores                                 | 4 001                    | 3 730   | 3 931   | 4 244    |
| Debtors, cash deposits (b)                       | 5 741                    | 5 959   | 7 014   | 7 050    |
| Total current                                    | 13 948                   | 13 901  | 15 304  | 15 382   |
| Total Assets                                     | 280 566                  | 279 715 | 270 082 | 275 841  |
| Liabilities (b)                                  |                          |         |         |          |
| Long and medium term:                            |                          |         |         |          |
| AMC, SASC  | 1 992                    | 2 230   | 2 182   | 2 456    |
| Building Societies and Institutions              | 1 182                    | 1 199   | 1 681   | 1 592    |
| Bank loans                                       | 7 994                    | 8 755   | 9 492   | 9 673    |
| Family Loans                                     | 444                      | 522     | 525     | 547      |
| Other  | 75                       | 66      | 88      | 93       |
| Total long and medium term                       | 11 688                   | 12 773  | 13 969  | 14 361   |
| Short term:                                      |                          |         |         |          |
| Leasing  | 53                       | 47      | 33      | 20       |
| Hire purchase                                    | 1 396                    | 1 453   | 1 511   | 1 541    |
| Trade Credit                                     | 1 654                    | 1 867   | 2 410   | 2 389    |
| Bank overdrafts                                  | 2 290                    | 2 247   | 2 166   | 2 174    |
| Other  | 43                       | 39      | 41      | 49       |
| Total short term                                 | 5 436                    | 5 654   | 6 161   | 6 173    |
| Total Liabilities                                | 17 123                   | 18 427  | 20 129  | 20 534   |
| Net worth  | 263 443                  | 261 288 | 249 953 | 255 307  |
| In real terms (as deflated by the gdp deflator): |                          |         |         |          |
| Indices 2016 = 100                               |                          |         |         |          |
| GDP deflator                                     | 98                       | 100     | 102     | 104      |
| Total assets                                     | 102                      | 100     | 95      | 95       |
| Total liabilities                                | 95                       | 100     | 107     | 107      |
| Net worth  | 103                      | 100     | 94      | 94       |

<sup>(</sup>a) The valuations of land and breeding livestock are at average market prices; those of buildings, plant, machinery and vehicles are replacement cost, net of consumption of fixed capital.

<sup>(</sup>b) Financial estimates are derived in part from a year-end analysis of farms in the Farm Business Survey. Year-ends can vary from December through to April. Farm businesses cover a sample from all regions and all types of farming with the results weighted to represent the full population using standard outputs. Annual changes to the sample and weighting, whilst relatively low, may may impact on year on year changes.

#### **Revisions**

This release replaces the first 2018 estimate published in May 2019, subsequently revised in July 2019. Table 3 details the level of change to 2018 data since publication of the early forecast in December 2018. Data revisions were planned, are typically small and increase the precision as more survey data has become available:

- intermediate consumption and other costs data estimated in the first estimate publication have been replaced with Farm Business Survey data.
- some crop output values for 2018 have been updated following the publication of revised crop areas in May 2019, as a result production volume were recalculated and values adjusted.

Table 3: Revisions made to Total Income from Farming for 2018 between December 2018 and November 2019

|                                       | Published | Published | Published | % change  | % change  |
|---------------------------------------|-----------|-----------|-----------|-----------|-----------|
| Total Income from Farming for 2018    | December  | July 2019 | November  | (December | (July to  |
|                                       | 2018 (a)  | (b)       | 2019 (c)  | to July)  | November) |
| Gross output at basic price (£m)      | 26 453    | 26 651    | 26 562    | 0.7%      | -0.3%     |
| Intermediate consumption (£m)         | 16 769    | 17 065    | 17 014    | 1.8%      | -0.3%     |
| Gross Value Added at basic price (£m) | 9 684     | 9 586     | 9 548     | -1.0%     | -0.4%     |
| Net Value Added at factor cost (£m)   | 8 592     | 8 438     | 8 366     | -1.8%     | -0.8%     |
| Total Income from Farming (£m)        | 4 850     | 4 697     | 4 644     | -3.1%     | -1.1%     |

Periodically the standard output coefficients used to raise Farm Business Survey data to aggregate agriculture level are updated. From 2018 intermediate consumption and other cost values are based on 2013 standard output coefficients. Therefore results published are not directly comparable with those published in earlier years which are based on previous standard output coefficients.

Total Income from Farming is sensitive to small percentage changes in the values of outputs and intermediate consumption. A combination of a revision downwards in output and revision upwards in intermediate consumption leads to more sizeable revisions in percentage terms to Gross Value Added and Total Income from Farming.

Further information on revisions and data correction procedures and standards can be found here.

#### **Summary quality report**

A summary quality report for this statistical release can be found on the GOV.UK website.

This is an overview note which is not release specific and was last updated in March 2019. It pulls together key qualitative information on the various dimensions of quality as well as providing a summary of methods used to compile the output. It relates to estimates of Total Income from Farming and aims to provide users with information on usability and fitness for purpose of these estimates.

#### **Quality Assurance**

Defra has in place quality assurance processes to check the accuracy and reliability of the aggregate agricultural accounts that includes:

- Ongoing review of methods employed in the calculation of the accounts.
- Assessment of the quality of the estimates of components of the accounts with internal experts.
- Discussion of components of the accounts with external experts.
- Quality assessments made by Eurostat, the statistical office of the European Union.

#### **National Statistics status**

National Statistics status means that our statistics meet the highest standards of trustworthiness, quality and public value, and it is our responsibility to maintain compliance with these standards.

The continued designation of these statistics as National Statistics was confirmed in December 2017 following a compliance check by the Office for Statistics Regulation [Total Income from Farming in the United Kingdom statistics].

The statistics last underwent a full assessment [Assessment Report 271 Statistics on Agriculture] against the Code of Practice for Statistics in 2014.

Since the latest review by the Office for Statistics Regulation, we have continued to comply with the Code of Practice for Statistics and have enhanced data quality by reviewing methodologies and data sources.

#### **Development areas**

Defra statisticians carry out a continuous review of methods employed in making estimates of the production and income accounts. This may lead to revisions to data series owing to improvements in methods in addition to the use of later information.

#### Main users and uses of the aggregate agricultural accounts

The aggregate agricultural accounts are used in conjunction with other economic information to:

- Monitor the productivity and competitiveness of the farming industry.
- Inform policy decisions and to help monitor and evaluate current policies relating to agriculture in the UK by Government and in the European Union by the European Commission.
- Inform stakeholders of the performance of the agricultural industry.
- Inform research into the economic performance of the agricultural industry.

Total Income from Farming sets the context when looking at a number of policies; the
agricultural industry, on average, contributes around £9 billion to the national economy
and accounts for about 0.5% of national Gross Domestic Product. It is most relevant to
policies relating to Common Agricultural Policy reform and the competitiveness of farming.

# User engagement

As part of our ongoing commitment to compliance with the <u>Code of Practice for Official Statistics</u>, we wish to strengthen our engagement with users of these statistics and better understand the use made of them and the types of decisions that they inform. Consequently, we invite users to make themselves known, to advise us of the use they do, or might, make of these statistics, and what their wishes are in terms of engagement. Feedback on this notice and enquiries about these statistics are also welcome.