



03 February 2022

Total Income from Farming in England, second estimate for 2020

This release presents the second estimate of Total Income from Farming (TIFF) in England for 2020, replacing 2020 England estimates published in September 2021. Some estimates for earlier years have also been revised due to the availability of additional or updated data.

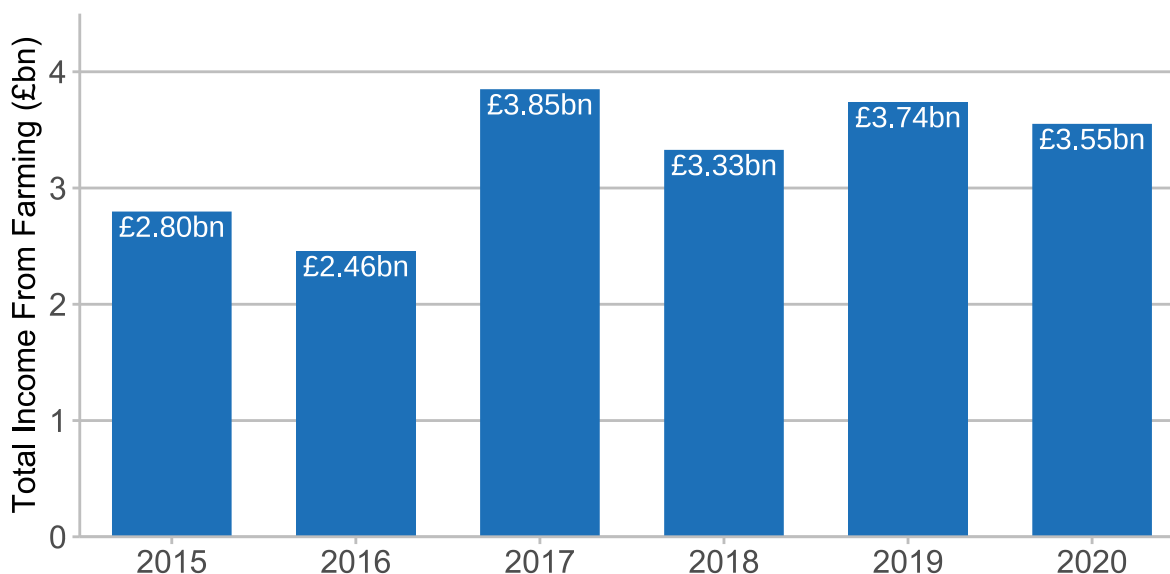
Total Income from Farming is the total profit from all farming businesses in England on a calendar year basis. It measures the return to all entrepreneurs for their management, inputs, labour and capital invested.

The first estimate of TIFF in England 2021 will be published in Summer 2022

Key Messages

- In 2020, Total Income from Farming in England is estimated to have been £3,552 million, a fall of £188 million (-5.0%) from 2019. This figure for 2020 has been revised upwards by £955 million (36.8%) since the first estimate in September 2021.
- In 2020, agriculture's contribution to England's economy (Gross Value Added at basic prices) was £7,574 million, a fall of £275 million (-3.5%) compared with 2019.
- The main cause for the decrease in TIFF was a fall in gross output at basic prices of £717 million. This was driven by a £995 million (-11.5%) fall in the value of crop output which more than offset a £300 million (3.1%) rise in the value of total livestock output and a fall of £442 million (-3.6%) in the value of total intermediate consumption compared with 2019.

Figure 1: Total Income from Farming (TIFF) in England: 2015 to 2020 at current prices



Source: Defra © Crown copyright

Revisions since first estimates

The value of TIFF for 2020 has been revised upwards by 36.8% (£955 million) since the first estimate was published in September 2021. The main amendments were increased income from diversification (Inseparable non-agricultural activities) and decreased volumes of farming inputs (seeds, fertilisers and plant protection products). The revisions were due to both methodological improvements and availability of more robust survey data to replace previous estimates. Survey data from the Farm Business Survey, provided evidence that output from diversification in 2020 proved far more resilient to Covid-19 restrictions than had been forecast. The table below summarises the changes and full details of the revisions are provided in section 4.2.1 on page 16.

Table 1: Impact of largest revisions to UK Total Income from Farming between the 2020 first and second estimates

Account item	£ million		
	First estimate 2020 (Published Sep 2021)	Second estimate 2020 (Published Feb 2022)	% change (from first to second estimates)
Inseparable non-agricultural activities	862	1,119	29.8%
Seeds	873	759	-13.1%
Fertilises	780	690	-11.5%
Plant protection products	973	772	-20.7%

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What you need to know about this release

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National Statistics Status

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.

The statistics last underwent a full assessment in 2014 by the UK Statistics Authority's Assessment team. A copy of the full report can be found on the internet, Assessment Report 271 Statistics on Agriculture.

The continued designation of these statistics as National Statistics was confirmed in December 2017 following a compliance check by the UK Statistics Authority (now the Office for Statistics Regulation) against the Code of Practice for Statistics. The compliance check letter can be found on the UK Statistics Authority website.

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.

For general enquiries about National Statistics, contact the National Statistics Public Enquiry Service:

Tel: 0845 601 3034

Email: info@statistics.gov.uk.

You can find National Statistics on the internet on the gov.uk website.

Changes to Release Schedule

As part of our efforts to maintain a high standard of statistical releases, we are currently performing a review of our production schedule for Total Income from Farming in England. We would be interested to hear from users of any impact any changes to our publication schedule would have on their use of our data.

For feedback, please complete [this form](#) to tell us how you use this statistical notice. For any more specific feedback please contact the responsible statistician for this release, Tim Buttanshaw, using the contact details above.

Key terms for this publication

Basic price replicates what the farmer receives. It is the market price plus directly paid subsidies that are linked to the production of specific products. In England, this type of subsidy last existed in 2011, so for recent years basic price and market price are the same.

Compensation of employees is the full cost of employees to the business, including national insurance contributions. Mainly salaries and wages of staff.

Consumption of fixed capital is the reduction in value (at current prices) of capital assets used in the production process, e.g. buildings, plant, machinery, vehicles and livestock. Otherwise known as depreciation of 'assets'.

Current price is the value based on prices observed during the reference year (i.e. values not adjusted for inflation). The alternative to current price is 'real terms' (see below).

Financial Intermediation Service Charge Indirectly Measured (FISIM) is the service fees on monies loaned and deposited.

Gross Domestic Product (GDP) is the market value of all goods and services produced by a national economy.

Gross Fixed Capital Formation (GFCF) in livestock is the production of animals that will be used as the means of production, i.e. breeding animals and cows for milking. Otherwise known as appreciation of 'assets'.

Gross output is the total value of output produced by farm businesses.

Gross Value Added (GVA) is computed as Gross output minus Intermediate consumption and represents that contribution of a business, sector or industry to Gross Domestic Product (GDP).

Inseparable non-agricultural activities are non-agricultural enterprises that are included within the business level accounts of farms, e.g. tourism and recreation facilities. Otherwise known as 'diversification'.

Intermediate consumption is the goods and services used as inputs in the productive process, e.g. feed, energy and veterinary expenses.

Market price is what is paid by the consumer. See basic price above.

Other agricultural activities are agricultural activities that do not result in sales of final product. Principally this is the provision of contract work, which will net off against 'Agricultural Services'.

Real terms is where values from previous years have been adjusted for inflation using the most recent year as a base year. The alternative to real terms is 'current price' (see above).

Total Income from Farming (TIFF) is the income to those who own businesses within the agricultural industry. The term **income** used throughout this notice refers to Total Income from Farming. This is the total profit from all UK or England farming businesses on a calendar year basis.

Section 1 – Summary of long-term trends in real terms

Values in this section are expressed in real terms at 2020 prices. The figures have been adjusted to take into account inflation, which allows more meaningful comparisons between years over the longer term. This section puts 2020 Total Income from Farming in the context of past figures. The make-up of the 2020 figure is examined in detail in Section 2.

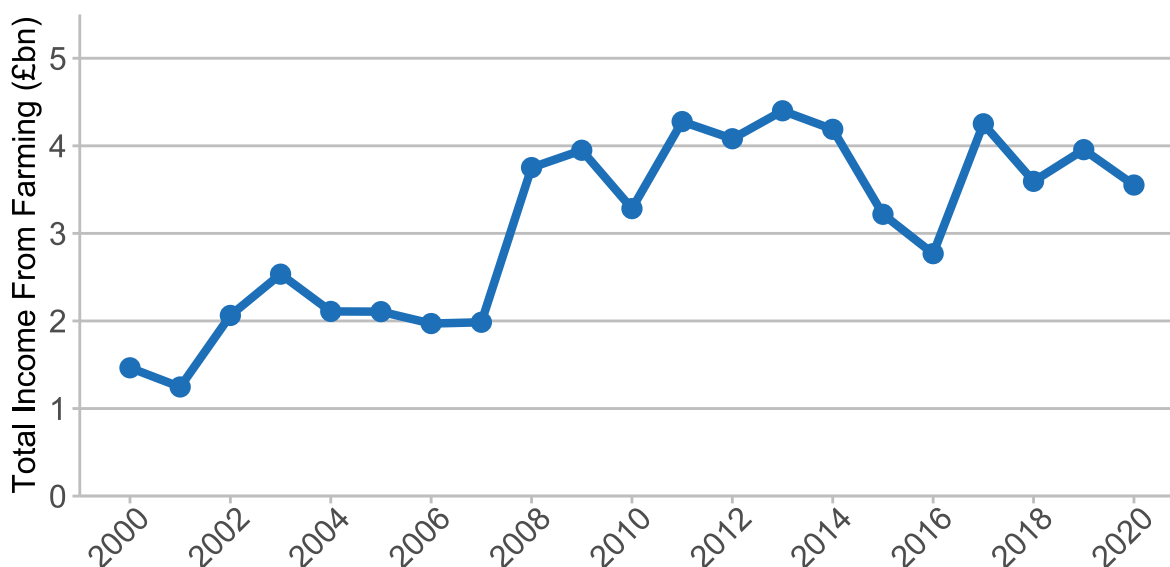
The key drivers of agricultural income include the volume of production, commodity prices and the cost of inputs. These are themselves driven by a range of factors such as the weather, exchange rates, oil price, and global supply and stocks of commodities. As a result, agricultural income tends to be volatile and fluctuate from year to year. In addition to these ever-present factors, agriculture in 2020 was also influenced by the Covid-19 pandemic as well as by risk mitigation actions, in response to the uncertainty regarding the outcome of negotiations concerning future trading relations with the EU, which continued up to 24/12/2020

Total Income from Farming (TIFF) in 2020 was £3,552 million, a fall of £404 million (-10.2%) in real terms compared with 2019.

A brief overview of the trends in TIFF since 2000

Having almost doubled in 2002 to just over £2 billion, between 2002 and 2007, England TIFF was in the region of £2 billion before jumping to almost £4 billion in 2008. TIFF remained in the region of £4 billion, except in 2015 and 2016, for the next decade. Looking more closely at the years from 2015: TIFF fell sharply in 2015 driven by lower commodity prices and a stronger pound. In 2016 the exchange rate improved but a poor harvest and continued low commodity prices kept income low. In 2017, Total Income from Farming jumped back to close to the highest point for 20 years as a result of a favourable combination of a weaker pound, strong commodity prices and high levels of production. In 2018, extreme weather conditions led to poor yields and pushed up the price of key inputs, these factors were not fully offset by strong commodity prices resulting in a 15% fall in TIFF that year. In 2019, favourable weather produced modest increases to both crop output and TIFF.

Figure 2: Total Income from Farming in England, 2000-20 in real terms



Source: Defra © Crown copyright

Table 2: Aggregate Agricultural Accounts: Summary of production and income accounts for England in real terms

£ million	Average 2013 to			
Account item	2017	2018	2019	2020
Total crop output	8,774	8,801	9,118	7,625
Total livestock output	10,166	10,149	10,079	9,828
10 Other agricultural activities	987	1,056	1,065	973
11 Inseparable non-agricultural activities	1,059	1,117	1,172	1,119
12 Output (at market prices)	20,985	21,124	21,433	19,545
13 Total subsidies (less taxes) on product	0	0	0	0
14 Gross output at basic prices (12+13)	20,985	21,124	21,433	19,545
25 Total intermediate consumption	12,975	13,272	13,130	11,971
26 Gross value added at market prices (12-25)	8,010	7,852	8,303	7,574
27 Gross value added at basic prices (14-25)	8,010	7,852	8,303	7,574
28 Total consumption of Fixed Capital	3,412	3,402	3,577	3,319
29 Net value added at market prices (26-28)	4,599	4,449	4,726	4,255
30 Net value added at basic prices (27-28)	4,599	4,449	4,726	4,255
31 Other subsidies (less taxes)	2,221	2,231	2,237	2,094
32 Net value added at factor cost (30+31+32)	6,819	6,680	6,963	6,349
33 Compensation of employees	2,218	2,238	2,179	2,030
34 Rent	532	511	494	454
35 Interest	304	337	333	313
36 Total Income from Farming (33-34-35-36)	3,765	3,594	3,956	3,552

Section 2 – Detailed comparison between 2020 and 2019 using current prices

This comparison of the Total Income from Farming (TIFF) account from the two most recent years is made between values that have not been adjusted for inflation. This approach is considered the most intuitive for comparisons year to year. See Tables 3-5 in section 3 for the full data expressed in current prices. This section contains commentary offering explanation for the values estimated for 2020 and how they have changed since 2019.

2.1 Headline figures

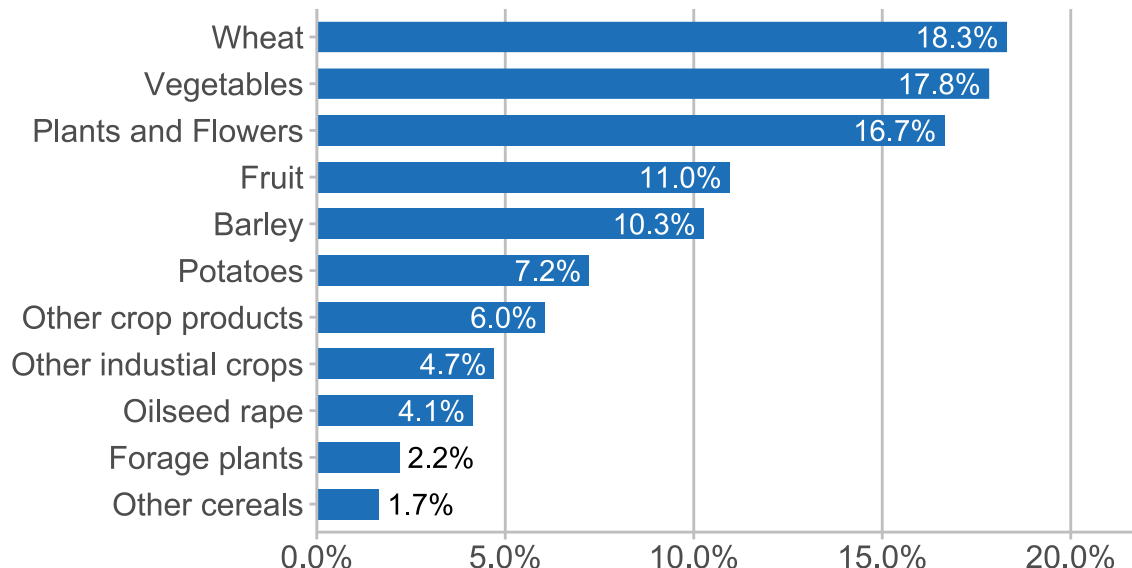
In 2020, Total Income from Farming in current prices (not adjusted for inflation) fell by £188 million to £3,552 million, a 5.0% fall from 2019.

The entire fall in TIFF can be explained by Gross Output at basic prices which fell by £717 million (-3.5%). The main contributors to the decrease in Gross Output were the fall in the value of output from wheat (-£874 million, -38.5%), oilseed rape (-£225 million, -41.6%). Intermediate consumption in 2020 was £442 million (-3.6%) lower than in 2019.

Gross Value Added (GVA), which measures agriculture's contribution to the Gross Domestic Product (GDP), fell by 3.5% (-£275 million) to £7,574 million in 2020.

2.2 Crop Outputs

Figure 3: Percentage share of the value of total crop output for England in 2020



Source: Defra © Crown copyright

The value of Total Crop Output for 2020 was £7,625 million, a fall of £995 million or 11.5% compared with 2019. In general, cereals and industrial crops struggled, whilst horticultural crops fared much better.

The value of output from cereals was £2,305 million, a fall of £870 million (-27.4%) from 2019. This fall was largely explained by wheat output which fell in value by £874 million (-38.5%) to £1,396 million. Drilling of winter wheat in 2019/20 was badly affected by significant winter rain meaning that some planting was abandoned in favour of spring sowing of other crops. The very dry spring of 2020 caused further problems and, whilst the harvest got off to a good start, heavy rain in mid / late August caused losses and quality issues. The result was a 25% ¹ fall in wheat area and reduced yields contributing to the smallest England wheat harvest (by volume) recorded in the past two decades. Higher prices were not nearly enough to compensate for the 40% fall in volume.

The value of output from barley fell by £15 million (-1.9%) to £783 million. The large number of growers switching from winter wheat to spring barley meant that, despite the difficult season, barley production in 2020 was less than 1% lower than the record harvests seen in 2019. The price of barley fell marginally due to plentiful supplies and lower demand from brewers because of hospitality venues being closed during Covid-19 lockdowns.

The value of output from oilseed rape (OSR) fell by £225 million (-41.6%) to £315 million. The planted area of oilseed rape fell again in 2020, this time by 28%, giving the smallest area since 2000 and contributing to a 41% fall in volume. Wet weather during crop establishment and infestations of cabbage stem flea beetle proved problematic for growers.

The value of sugar beet fell by £42 million (-19.8%) to £169 million. The dry spring and aphid infestations following two mild winters resulted in a 24% fall in production.

The value of output from fresh vegetables rose by £115 million (9.2%) to £1,360 million. Average prices across a wide variety of crops saw a small increase in 2020, though fortunes for individual crops were mixed. Some crops such as carrots and onions struggled with the wet winter and very dry spring, though the mixture of heat and rains later in the year proved favourable, particularly for brassica (cruciferous vegetables such as cabbage or broccoli) production.

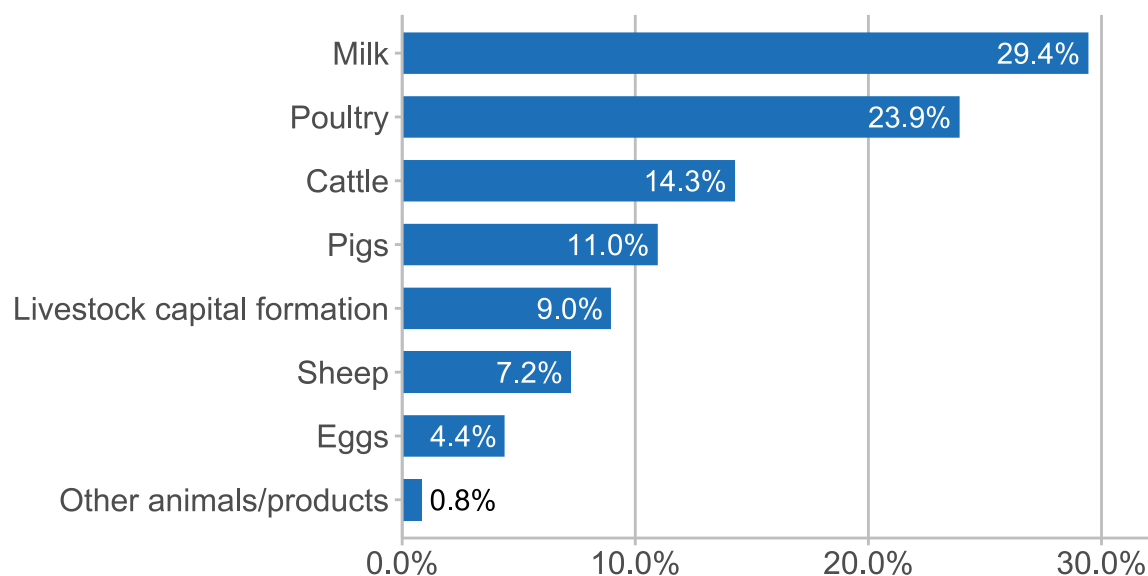
The value of output from plants and flowers fell by £18 million (-1.4%) to £1,270 million. The sector was impacted by the first Covid-19 lockdown that closed garden centres during a critical selling period. Many nurseries successfully adapted their businesses and were able to recoup some sales later in the year.

The value of output from fruit rose by £118 million (16.5%) to £836 million, mainly due to a rise in average prices, whilst value of output from potatoes rose by £71 million (14.8%) to £551 million.

¹ Figures for output and volume have come from "Farming Statistics – final crop areas, yields, livestock populations and agricultural workforce at 1 June 2020 United Kingdom" https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/946161/structure-jun2020final-uk-22dec20.pdf

2.3 Livestock Outputs

Figure 4: Percentage share of the value of total livestock output for England in 2020



Source: Defra © Crown copyright

The value of total livestock output for 2020 was £9,828 million, a rise of £300 million or 3.1% compared with 2019. This was mainly driven by 'livestock primarily for meat' rather than livestock products such as milk.

The value of output from cattle (for meat) rose by £152 million (12.2%) to £1,404 million. The closure of hospitality outlets due to Covid-19 was expected to reduce demand for high value cuts. However, the beef market proved resilient as prices increased despite an increase in the volume of production.

The value of output from poultry (for meat) rose by £123 million (5.5%) to £2,350 million. Increased demand was seen for free-range and organic chickens as consumers became more aware of animal welfare and sought more luxury meals at home during Covid-19 lockdowns. The turkey market was forced to reduce placements as large Christmas gatherings were not anticipated to be possible.

The value of output from pigs rose by £39 million (3.8%) to £1,078 million. The market for pig meat proved resilient to Covid-19 lockdowns.

The value of output from sheep rose by £34 million (5.1%) to £710 million. The Easter lamb market was disrupted by the first Covid-19 lockdown; however, retail volumes were boosted by demand for takeaways throughout the second half of the year and prices were helped by reduced competition from New Zealand lamb.

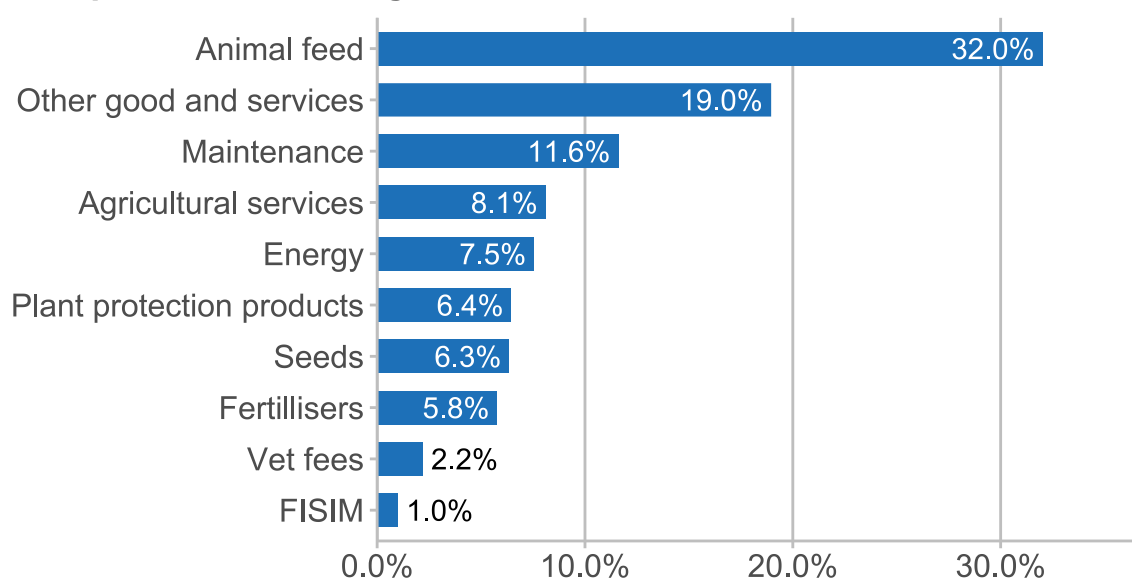
The value of output from milk fell by £11 million (0.4%) to £2,893 million. Milk consistently has the highest value of any individual item on the account by a considerable margin. In 2020 output from milk was worth more than the combined output from cattle (for meat) and wheat. The observed fall in milk value was almost entirely due to a fall of 0.31 pence per litre (-1.08%) in the average farmgate price to 28.56 pence per litre. The level of milk production was maintained whilst market demands in the dairy sector shifted from hospitality (e.g. liquid milk for coffee) to

households (e.g. butter for baking) during Covid-19 lockdowns, mitigating the impact of the public health measures.

The value of output from eggs rose by £39 million (9.9%) to £432 million. This was almost entirely driven by an 11.2% increase in price, partly due to a continued move from caged production to higher welfare and organic systems. Demand for eggs benefited from an increase in baking during Covid-19 lockdowns.

2.4 Intermediate Consumption

Figure 5: Percentage share of the total value of intermediate consumption costs for England in 2020



Source: Defra © Crown copyright

Intermediate consumption is the goods and services used as inputs in the productive process, e.g. feed, seeds, and veterinary expenses.

The total cost of Intermediate Consumption in 2020 was £11,971 million, a fall of £442 million (-3.6%) compared with 2019. This change is the sum of several substantial rises and falls in the component cost categories, mostly influenced by weather events and the Covid-19 pandemic.

The cost of fertilisers fell by £206 million (-23.0%) to £690 million. This was the largest nominal change of all the itemised Intermediate Consumption costs and resulted from falls in both the volume and price of fertilisers. There was a switch to less fertiliser-intensive spring crops from winter sown crops for the 2020 growing season. In addition, the price of fertilisers fell as their production is heavily reliant on energy, which fell in price in 2020.

The cost of seeds rose by £133 million (21.2%) to £759 million. Many cereal farmers sowed increased areas in spring 2020 in response to the unfavourable drilling and

establishment conditions over winter 2019/20 before returning to winter varieties in late 2020. Increased seed rates per hectare and an increase in the use of cover crops also contributed.

The cost of plant protection products fell by £121 million (-13.5%) to £772 million. A reduced volume of fungicide was used due to lower than usual disease pressure thanks to the mild and dry spring, but price was higher because of the banning of Chlorothalonil, a cheap and commonly used fungicide. The volume of herbicide used rose as post emergence applications on winter sown crops were postponed from late 2019 to early 2020. Insecticides and other plant protection products also saw reductions in the volume used.

The cost of energy fell by £112 million (-11.1%) to £902 million. This was almost entirely due to a fall in the cost of motor and machinery fuels. This fall in fuel cost was driven by a minor decrease in the volume of fuel used coupled with a large fall in price caused by lower global demand for fuel due to Covid-19 related lockdowns.

The cost of animal feed rose by £125 million (3.4%) to £3,835 million. Animal feed is consistently the biggest percentage share of total Intermediate Consumption and comprises compounds, straights, and feed produced and used on farm or purchased from other farms

The cost of other goods and services fell by £241 million (-9.6%) to £2,269 million. This was mainly driven by a significant reduction in the volume of straw purchased from other farms, as a result of good stocks from 2019 and limited supply following the poor harvest in 2020.

2.5 Compensation of employees

The total cost of compensation of employees in 2020 was £2,030 million, a fall of £30 million (-1.5%) compared with 2019. This fall was due to the size of the labour force working in English agriculture decreasing slightly. Factors that are likely to have affected the labour market include domestic Covid-19 restrictions, restricted international travel, and the introduction of the furlough scheme, which impacted on both regular and casual workers.

2.6 Subsidies

In 2020, there were no payments linked to specific products in England. This has been the case from 2012 onwards. 'Other subsidies (less taxes)', which include the Basic Payment Scheme and agri-environment payments, totalled £2,094 million, a fall of £21 million (-1.0%) compared with 2019.

Section 3 – Tables

Table 3 - Production account for England in current prices

Account item	2019	2020	£ million change 2019 to 2020	% Change 2019 to 2020
1 Output of Cereals ^a	3,176	2,305	- 870	-27.4%
Of which: Wheat	2,270	1,396	- 874	-38.5%
Barley	799	783	- 15	-1.9%
2 Output of industrial crops	916	674	- 242	-26.4%
Of which: Oilseed rape	540	315	- 225	-41.6%
Protein crops	143	153	9	6.6%
Sugar beet	210	169	- 42	-19.8%
3 Output of forage plants	170	167	- 3	-1.6%
4 Output of vegetables and horticulture	2,533	2,630	97	3.8%
Of which: Fresh vegetables	1,245	1,360	115	9.2%
Plants and flowers	1,288	1,270	- 18	-1.4%
5 Output of potatoes (including seeds)	480	551	71	14.8%
6 Output of fruit	718	836	118	16.5%
7 Output of other crop products, incl. seeds	628	461	- 166	-26.5%
Total crop output (sum 1-7)	8,620	7,625	-995	-11.5%
8 Output of livestock	6,129	6,427	298	4.9%
Primarily for meat	5,195	5,546	351	6.8%
Of which: Cattle	1,251	1,404	152	12.2%
Pigs	1,038	1,078	39	3.8%
Sheep	675	710	34	5.1%
Poultry	2,227	2,350	123	5.5%
Gross fixed capital formation	934	880	-53	-5.7%
Of which: Cattle	515	497	-17	-3.4%
Pigs	-8	1	9	112.5%
Sheep	221	213	-9	-4.0%
Poultry	205	169	-36	-17.7%
9 Output of livestock products	3,399	3,401	2	0.1%
Of which: Milk	2,904	2,893	-11	-0.4%
Eggs	393	432	39	9.9%
Total livestock output (8+9)	9,528	9,828	300	3.1%
10 Other agricultural activities	1,006	973	-33	-3.3%
11 Inseparable non-agricultural activities	1,108	1,119	11	1.0%
12 Output (at market prices) (sum 1 to 11)	20,262	19,545	-717	-3.5%
13 Total subsidies (less taxes) on product	-	-	-	-
14 Gross output at basic prices (12+13)	20,262	19,545	-717	-3.5%

^a The total output from cereals and other sub-categorised outputs is based on more than just the values sub-listed however the other values are much smaller so are not included, please leave feedback via the form if you wish to see the full data set in future publications

Table 4 – Intermediate production costs for England in current prices

Account item	2019	2020	£ million change 2019 to 2020	% Change 2019 to 2020
15 Seeds	626	759	133	21.2%
16 Energy	1,014	902	-112	-11.1%
17 Fertilisers	896	690	-206	-23.0%
18 Plant protection products	892	772	-121	-13.5%
19 Veterinary expenses	263	264	1	0.4%
20 Animal feed	3,710	3,835	125	3.4%
21 Total maintenance	1,398	1,392	-6	0.4%
22 Agricultural services	1,002	968	-33	-3.3%
23 FISIM	102	120	18	17.8%
24 Other goods and services	2,510	2,269	-241	-9.6%
25 Total intermediate consumption	12,413	11,971	-442	-3.6%

Table 5 – Total production income measures for England in current prices

Account item	2019	2020	£ million change 2019 to 2020	% Change 2019 to 2020
26 Gross value added at market prices (12-25)	7,849	7,574	-275	-3.5%
27 Gross value added at basic prices (14-25)	7,849	7,574	-275	-3.5%
28 Total consumption of Fixed Capital	3,382	3,319	-62	-1.8%
Of which: Equipment	1,542	1,541	1	0.0%
Buildings	762	762	0	0%
Livestock	1,077	1,015	-62	-5.7%
29 Net value added at market prices (26-28)	4,468	4,255	-213	-4.8%
30 Net value added at basic prices (27-28)	4,468	4,255	-213	-4.8%
31 Other subsidies (less taxes)	2,115	2,094	-21	-1.0%
32 Net value added at factor cost (30+31)	6,582	6,349	-233	-3.5%
33 Compensation of employees	2,060	2,030	30	1.5%
34 Rent	467	454	-14	-2.9%
35 Interest	315	313	-2	-0.6%
36 Total income from farming (32-33-34-35)	3,740	3,552	-188	-5.0%

Section 4 - About these statistics

4.1 Methodology

Total Income from Farming (TIFF) refers to income generated by production within the agricultural industry, including subsidies. TIFF represents business profits and remuneration for work done by owners and other unpaid workers. It excludes changes in the values of assets and stocks due to price changes, but includes non-agricultural activities such as further processing or tourist activities where these cannot be separated from the agricultural business. TIFF is the preferred measure of aggregate income for the agricultural industry, conforming to internationally agreed national accounting principles required by the UK National Accounts.

Values for England are derived by subtracting similar accounts for Wales, Scotland and Northern Ireland from the United Kingdom agricultural production and income account. Latest account information for the UK can be found at [United Kingdom: Total Income from Farming statistics](#). Similar information for devolved administrations are available at [Scotland: Total Income from Farming statistics](#), [Wales: Aggregate agricultural output and income statistics](#) and [Northern Ireland: Aggregate agricultural account statistics](#).

The UK level estimates used as a starting point for the estimates in this release were published by Defra on 16 December 2021. The estimates for the Devolved Administrations, which were deducted from the UK estimates, were based on the latest figures published by Wales, Scotland, and Northern Ireland as of August 2021. See Section 4.3 Covid-19 disruption and the production of these statistics for further details about the production of the 2020 statistics published in this release.

4.2 Revisions

This release replaces the first estimates for TIFF in England published on the 30th September 2021.

Revisions are intended to increase the precision of the estimates and are routinely the result of more data becoming available over time. Sometimes additional revisions are necessary to refine the methodology or correct historical errors.

Total Income from Farming is the relatively small difference between two large numbers and is therefore 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 can be found on the webpage for [Defra's policy statement on revisions and correction](#)'.

4.2.1 Specific Revisions

There has been substantial revision to the value of inputs for TIFF in the UK in 2019 and 2020. Due to the method used to calculate TIFF in England, this revision has

had a proportionally larger impact on the England figures compared with the UK figures. The full explanation for the revisions of TIFF in the UK can be found in the publication [here](#), a slightly condensed overview is provided below.

The revisions in TIFF in the UK have been caused by a correction for the impact of an artefact in the methodology usually used to calculate the Intermediate Consumption component of TIFF for the UK. The resulting anomaly became significant and noticeable due to the changes in planting - caused by exceptional weather conditions in late 2019 and early 2020. This artefact is much less evident, almost negligible, in more usual years.

For the second estimate of TIFF, Farm Business Survey (FBS) data on inputs costs is available, which replaces the forecast data necessarily used for the TIFF first estimate. The FBS reporting period runs from March to February, whereas TIFF follows the calendar year. Consequently, the FBS data from two survey years are apportioned across the relevant calendar year to give an estimated value of the inputs used on a calendar year basis for the TIFF calculation. In doing so it is assumed that expenditure is evenly distributed across each month in the FBS year.

Owing to bad weather in 2019/20 affecting winter planting, many farmers abandoned winter crops in favour of spring sowing. This resulted in increased seed and fertiliser usage in January and February of 2020. This increased usage fell at the end of the 2019/2020 FBS year and consequently inflated the estimated value of seeds and fertiliser for the 2019 TIFF account. For the first estimate, where no FBS data is available, standard forecasting techniques are used to estimate the value of inputs used in the year. To forecast the value of seeds for 2020, the value of seeds in 2019 was used as a base. Consequently, when these forecasting techniques were applied for the 2020 first estimate, they used the inflated value of seeds and fertiliser for 2019, resulting in an overestimation of the 2020 value of these inputs.

To correct for this methodological artefact, the FBS seeds and fertiliser values for 2019 and 2020 have been replaced with values generated using 2018 value data as a base. To ensure the validity of this data, we checked that the sum of our new values across 2019 and 2020 closely matched the sum of the FBS data for 2019/2020 and 2020/21, because the total value of seeds and fertiliser across the two FBS reporting years and the two TIFF years should be aligned. There is very good consistency between the two methods. This new approach more accurately partitions the value of seeds and fertiliser between 2019 and 2020 for the calculation of TIFF.

There were also significant revisions to the value of plant protection products. FBS data available for these second estimates has replaced a forecast which appears to have been an overestimate for 2020. This overestimation was due to the difficulty in accurately forecasting the volumes and prices of plant protection products used following the banning of the commonly used fungicide, Chlorothalonil.

As with plant protection products, forecasting of 'inseparable non-agricultural activities' was challenging for 2020 owing to the Covid-19 pandemic and the resulting lockdowns. Consequently, our forecasting underestimated the value of 'inseparable non-agricultural activities' in 2020. With FBS data suggesting that although some areas were significantly impacted by the Covid-19 pandemic and lockdowns (such as tourism), other areas of 'inseparable non-agricultural activities',

such as leisure activities, did better than in 2019. Therefore, there has been a significant revision upwards in the value of ‘inseparable non-agricultural activities’ for the TIFF second estimate.

Table 1 (page 2) gives a detailed breakdown of the value of these four items that have undergone significant revision from the first estimate.

As mentioned above, the calculation of TIFF is very sensitive to small percentage changes in the values of Outputs and Intermediate Consumption. Here, we have a small revision upwards in the value of Outputs coupled with a sizeable revision downwards in the value of Intermediate Consumption. Consequently, there has been a significant revision in our estimate for the value of UK TIFF 2020, from the first to the second estimate.

In turn, this has a major impact on TIFF in England, since TIFF for the devolved administrations (DAs) are only published once, any revision in second estimate of TIFF in the UK will only change the value for England’s second estimate. Thus, while TIFF in the UK has increased by 24.3%, TIFF in England has increased by 36.8%. The absolute value changes between the UK and England TIFF would be the same if the DA data didn’t change at all in the time between UK first and second estimates. This however is not the case as partially forecast data was used for the DAs in the UK TIFF first estimate which have been replaced by sourced data in the UK second estimate. Details of these changes to DA data are given in section 4.2.2.

Table 6 details the level of change to our best estimates for 2020 Total Income from Farming between the first estimate, released in May 2021, and this second estimate.

Table 6: Overall impact of revisions to UK Total Income from Farming between the 2020 first and second estimates.

			£ million
Account item	First estimate 2020 (Published Sep 2021)	Second estimate 2020 (Published Feb 2022)	% change (from first to second estimates)
Gross output at basic price	19,313	19,545	1.2%
Intermediate consumption	12,544	11,971	-4.6%
GVA at basic price	6,769	7,574	11.9%
Total Income from Farming	2,597	3,552	36.8%

4.2.2 General Revisions

Owing to disruptions caused by the Covid-19 pandemic, limited 2020 data was available for Scotland and some 2020 data for Northern Ireland and Wales was received too late to be incorporated into the UK first estimates. Where data was not available, basic forecasting techniques were used to provide plausible estimates for

2020. These forecast values for Scotland, Northern Ireland and Wales have now been replaced with full 2020 data for the second estimates for 2020 presented here.

Table 7: Details of revisions to Total Income from Farming in England for 2020 between September 2021 (first estimates) and February 2022 (second estimates).

Country	Years impacted directly	Description of revisions.
England, Wales	2020	Forecasts replaced by Farm Business Survey data for Intermediate Consumption, Inseparable Non-Agricultural Activities and Compensation of Employees. This data became available in November 2021.
Scotland	2019	2020 TIFF estimates for Scotland published in May 2021 used to replace previous forecasts used in first estimate owing to delayed data accessibility due to Covid-19 Pandemic.
Northern Ireland	2020	2020 TIFF estimates for Northern Ireland published in May 2021 used to replace previous forecasts used in first estimate owing to delayed data accessibility due to Covid-19 Pandemic.
Wales	2020	2020 TIFF estimates for Wales published in May 2021 used to replace previous forecasts used in first estimate owing to delayed data accessibility due to Covid-19 Pandemic.
UK	2019-20	Routine availability of more industry data including price indices for specific commodities.

4.3 Covid-19 disruption and the production of these statistics

England estimates are calculated by subtracting estimates for the Devolved Administrations from UK estimates. Some data used in the estimation of the UK Aggregate Agricultural Accounts are supplied to Defra by statisticians in the Devolved Administrations. Covid-19 has increased government reporting requirements whilst simultaneously making fieldwork more difficult. As a result, when UK 2020 first estimates were calculated, limited 2020 data was available for Scotland and some 2020 data for Northern Ireland and Wales was received too late to be incorporated before publication in May 2021. However, this data became available between the publication of TIFF in the UK and TIFF in England, and so the combined values of the DAs did not sum to the UK total in the first estimate.

4.4 Summary quality report

A summary quality report for this statistical release can be found on the [GOV.UK website for Aggregate agricultural accounts](https://www.gov.uk/government/statistics/summary-quality-report-for-aggregate-agricultural-accounts).

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.

4.5 Quality assurance

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

- Ongoing review of methods employed in the calculation of the accounts.
- Assessment of the quality of the estimates of components of the accounts with experts within Defra.
- Discussion of components of the accounts with external experts.

4.6 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 more up-to-date information.

4.7 Main users and uses of the aggregate agricultural accounts

The aggregate agricultural accounts are used both within government and by the wider agricultural industry 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.
- Inform stakeholders of the performance of the agricultural industry.
- Inform research into the economic performance of the agricultural industry.

4.8 User engagement

As part of our ongoing commitment to compliance with the Code of Practice for Official Statistics, 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. Please complete [this feedback form](#) to tell us how you use this statistical notice.

If you have any other feedback you wish to provide, please get in contact using the details provided in the “What you need to know about his release” section on page 4.

4.9 Future publications

Unless otherwise specified, these second estimates for 2020 will be subject to minor revisions in future publications of TIFF in England. The first estimate for TIFF in England for 2021 will be published in summer 2022. The availability of additional data and revised data will be incorporated to improve the accuracy of the estimates.

To find out the latest information on when UK government statistics will be released, go to the [gov.uk Research and statistics webpage](#) and select 'Statistics (up-coming)'.

4.10 Other publications relevant to this release

A number of publications released by Defra, are relevant to this release. Below is a list of the key publications and links to them on GOV.UK.

- [Total Factor Productivity of the UK agricultural industry.](#)
- [Total Income from Farming in England 2020 first estimate.](#)
- [Total Income from Farming in the UK](#)
- [Total Income from Framing for the Regions of England.](#)
- [Farm Business Survey: Farm Business Income.](#)