Department for Environment Food & Rural Affairs

20 July 2021

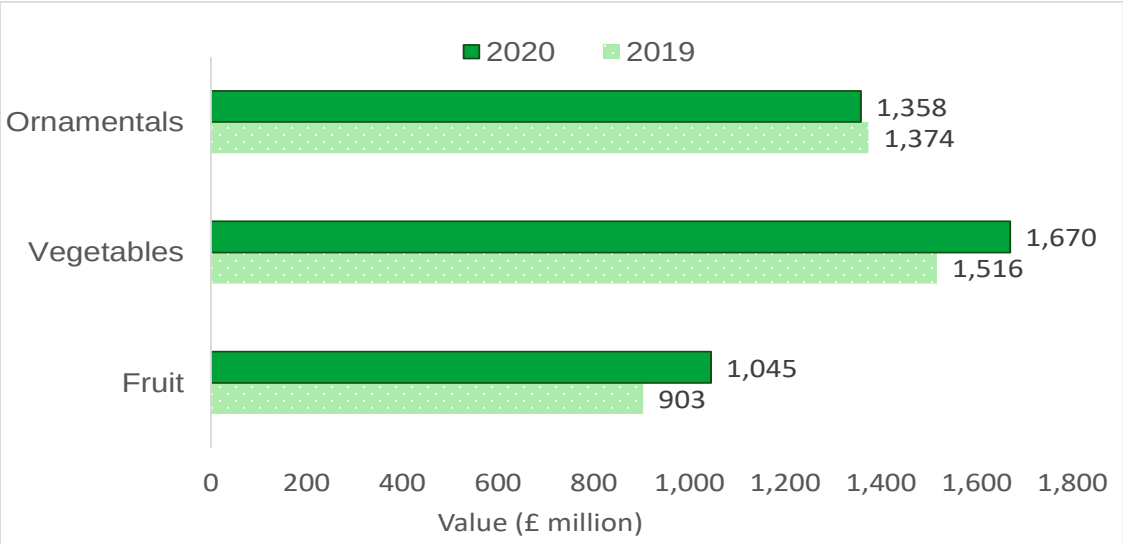
Horticulture Statistics 2020

These statistics cover area, production, trade and valuation of horticulture crops in the United Kingdom from 1985 to 2020. The published data is available in the accompanying dataset; including estimated data for individual fruit and vegetable varieties and aggregated ornamental production.

Key Messages

- The value of home-produced vegetables increased by 10% to just under £1.7 billion in 2020, and the volume of home production increased by 3% to 2.6 million tonnes. There was an increase in the value of field vegetables, which rose by 12% to £1.3 billion (£140 million increase) whilst the value of protected vegetables increased by 4.1% to £350 million (£14 million increase).
- Home produced fruit has grown in value to £1.0 billion, an increase of 16% compared to 2019, with production volumes falling 4.5% to 657 thousand tonnes).
- UK ornamentals were worth £1.4 billion in 2020, a decrease of 1.2% compared to 2019.

Figure 1 - Value of fresh fruit, vegetables, and ornamentals, 2019 and 2020 £million



Contents

What you need to know about this release

This section ensures any important information is clearly explained so users do not misunderstand the data.

Contact details

Responsible statistician: Lisa Brown

Email: crops-statistics@defra.gov.uk

Media enquiries: 0330 041 6560

Public enquiries: 020 802 66340

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 continued designation of these statistics as National Statistics was confirmed in 2014 following a compliance check by the UK Statistics Authority (now the Office for Statistics Regulation) against the Code of Practice for Statistics.

Since the last review of these statistics in 2014, we have continued to comply with the Code of Practice for Statistics, and have made improvements including:

- Following user feedback, we have now produced a new hops dataset which includes all available data from 2010 onwards (see table 26 in the dataset).

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.

Key words

- **Home produced –** This relates to fruit, vegetables and ornamentals grown within the UK
- **Field vegetables –** This refers to vegetables grown in the open; including roots, onions, brassicas and legumes
- **Protected vegetables –** This refers to vegetables grown in a protected environment, glasshouse or polythene tunnel; including tomatoes and lettuce.

Section 1 – Vegetables

1.1 Vegetable Production, supply and value.

Figure 2 Home produced vegetables as a percentage of total supply

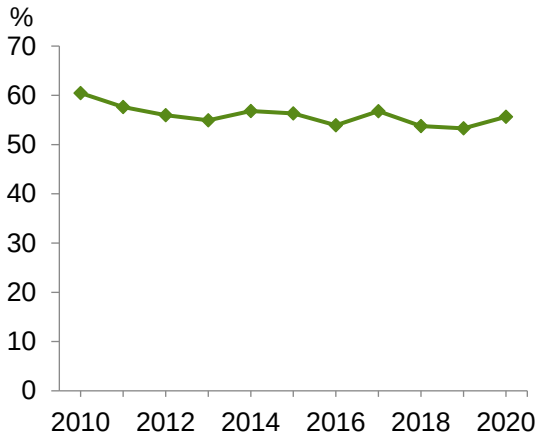
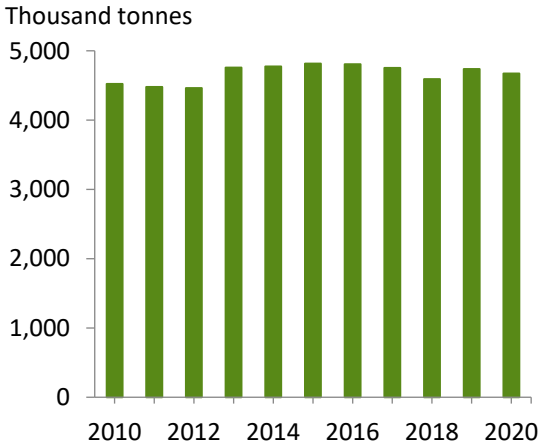


Figure 3 Total supply of vegetables



- Home production increased by 3% to 2.6 million tonnes, the value rose by 10% to £1.7 billion.
- Total supply decreased by 1.4% to 4.7 million tonnes. Imports of vegetables decreased by 7.5% to 2.2 million tonnes and exports also showed a decrease of 25% to 107 thousand tonnes.
- Home production of vegetables contributed to around 56% of the total UK supply in 2020, compared to 53% in 2019.

A very wet winter followed by a very dry spring had a negative effect on all crops, especially on heavy soils which became unworkable. Drought conditions improved toward the end of May. Through July and August, the hot weather and regular showers helped with crop growth across nearly all sectors. Salad crop planting was delayed until the soil conditions improved. Outdoor salad demand decreased due to the loss of the restaurant trade during the first lockdown to slow the spread of COVID-19, although this was slightly mitigated by the hot weather which increased demand for salads in July/August. The lockdown generally increased the demand of fresh vegetables (excluding salads), although profit margins were tighter and production costs increased (e.g. implementing social distancing measures for staff).

Brassica yields increased with the help of the wet Autumn, and most sectors saw an increase in the winter planted area due to higher retail demand. Calabrese (broccoli) production increased by 31% in 2020 to 84 thousand tonnes (64 thousand tonnes in 2019), with a 19% increase in value to £85 million (£71 million in 2019). The planted area increased by 25% to 8.8 thousand hectares (7 thousand hectares in 2019) and a 14% reduction in the market price to £1.35 per kg. Cauliflower production increased by 13% to 101 thousand tonnes (90 thousand tonnes in 2019), with a 37% increase in value to £78 million (£57 million in 2019). The planted area increased by

7% to 9.9 thousand hectares (9.3 thousand hectares in 2019) and a 21% increase in the market price to 90p per head.

The 2020 carrot season finished early after the challenging growing conditions, with some crops resown after original losses. Again, the summer mix of weather helped yields maintain a reasonable level, reducing by 2.9% to 68 tonnes per hectare (70 tonnes per hectare in 2019). Production was down 4.5% at 784 thousand tonnes (821 thousand tonnes in 2019) with a 6.2% increase in value to £185 million (£175 million in 2019).

1.2 Field vegetables

Figure 4 Value of field vegetables

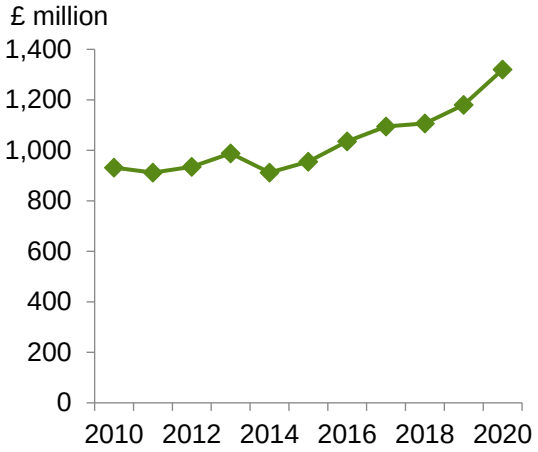
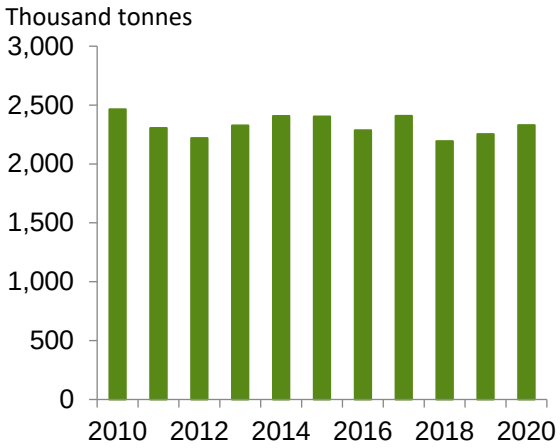


Figure 5 Production of field vegetables



- Field vegetables increased in value by 12% to £1.3 billion in 2020.
- Production at 2.3 million tonnes was an increase of 3.4% on 2019. The area used for field vegetables increased by 3.2% to 118 thousand hectares.
- See tables 11 to 13 in the dataset for individual crop details of area, production and value for field vegetables.

Table 1: Field vegetable total value and production

Calendar Year	2016	2017	2018	2019	2020 (prov)	% Diff
Value (£ million)	1,035	1,094	1,106	1,180	1,320	11.8%
Production (million tonnes)	2.3	2.4	2.2	2.3	2.3	3.4%

1.3 `Protected vegetables

Figure 6 Value of protected vegetables

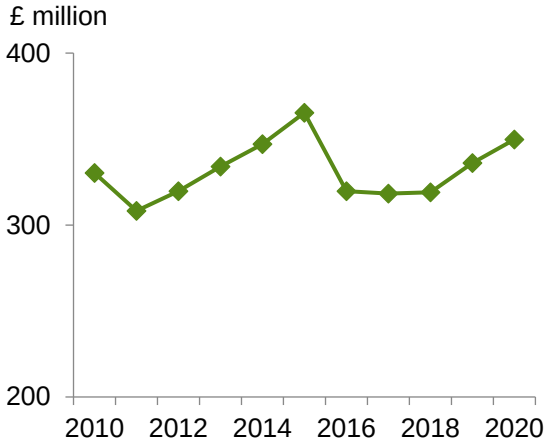


Figure 7 Production of protected vegetables

- The value of protected vegetables increased by 4.1% in 2020 to £350 million.
- Production of protected vegetables fell by 0.3% in 2020 to just below 270 thousand tonnes, with the area used increasing by 9.3%, at 874 hectares. This is the fifth year in a row where protected vegetable production has fallen since peak production in 2015 at 310 thousand tonnes.
- See tables 14 and 15 in the dataset for individual crop details of area, production and value for protected vegetables.

Table 2: Protected vegetable total value and production

Calendar Year	2016	2017	2018	2019	2020 (prov)	% Diff
Value (£ million)	320	318	319	336	350	4.1%
Production (Thousand Tonnes)	304.7	290.0	274.4	270.4	269.7	-0.3%

Section 2 – Fruit

2.1 Fruit Production, supply and value

Figure 8 Home produced fruit as a percentage of total supply

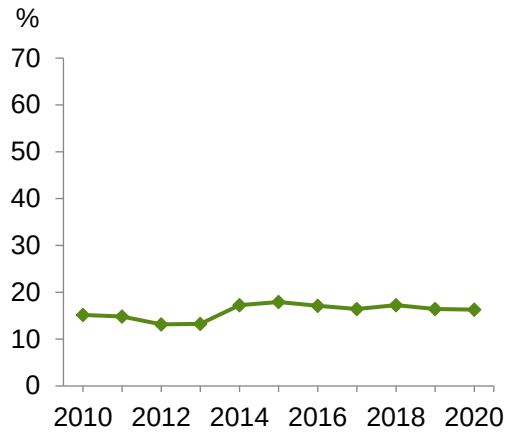


Figure 9 Total supply of fruit

- The trend of early bud and flower development seen in recent years continued in 2020 with the warmer than average winter. This continued though the hot summer and crops were harvested a week or more earlier than the long-term trend. Some orchard fruit had issues with the frequent rains and some waterlogging/flooding occurred in the first quarter of the year, resulting in both root and tree death in the latter part of the year when the hot weather returned.
- Home production contributed 16% of the total UK supply of fruit in 2020, remaining similar to 2019 (see table 2 and 10 in the dataset).
- Fruit production fell by 4.5% to 657 thousand tonnes. The area total for fresh fruit in 2020 fell by 2.8% to 34 thousand hectares when compared to 2019 (see table 4 in the dataset).

Table 3: Fruit total value and production

Calendar Year	2016	2017	2018	2019	2020 (prov)	% Diff
Value (£ million)	699	746	800	903	1,045	15.7%
Production (Thousand tonnes)	765	750	731	688	657	-4.5%

Figure 10 Value of fruit

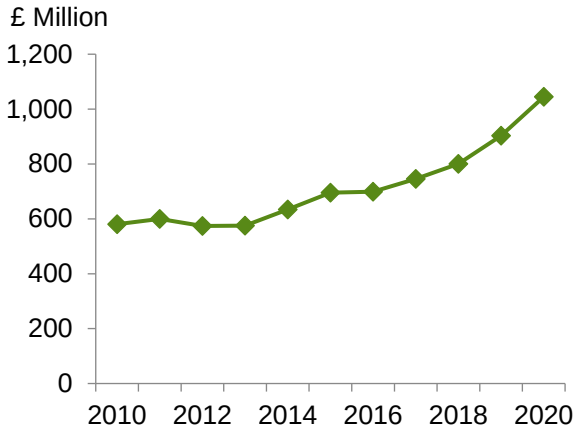
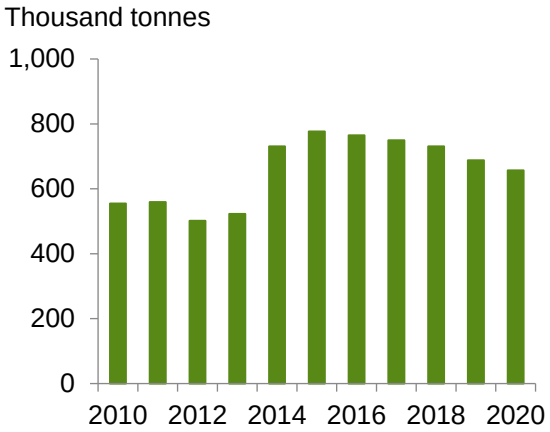


Figure 11 Production of fruit



- The value of fruit in 2020 was just over £1 billion for the first time, up 16%. The value of fruit grown in the open accounted for the bulk of this at £993 million, an increase of 17%, whereas Glasshouse fruit decreased by 3.8% to £51 million.
- Bramley orchards had a good year with favourable growing conditions and the later summer rains helped with crop size and better than expected yields. The 2020 harvest was early, but demand was strong due to poor yield in 2019 and resulting low stocks. Prices saw a 50% increase year-on-year with an average marketed price of £1.44 per kg. Production increased by 15% to 92 thousand tonnes, value increased by 93% to £81m and yields were 37.4 tonnes per hectare, a 52% increase.
- The raspberry crop continues to move towards the pot grown sector. The mild winter helped the early crop but the variable weather later in August meant those yields were lower than usual. The 2020 crop showed a reduction in value of 14% at £133m, production was 13% lower at 15 thousand tonnes with an overall average yield of just over 10 tonnes per hectare, a 15% decrease.
- The value of orchard fruit increased by 23% to £340m and soft fruit increasing by 14% to £653m. The value of dessert apples increased by £16m to £158m in 2020, an 11% increase on 2019. Meanwhile the value of pears showed a 13% decrease to £20m.
- Total supply of fruit fell by 3.7% to 4 million tonnes in 2020, home production falling by 4.5% and imports by 3% together with a 9.3% increase in exports.
- See tables 4 to 6 in the dataset for individual crop details of area, production and value for fruit.

Section 3 - Trade in fruit and vegetables

Figure 12 Imports of fruit and vegetables

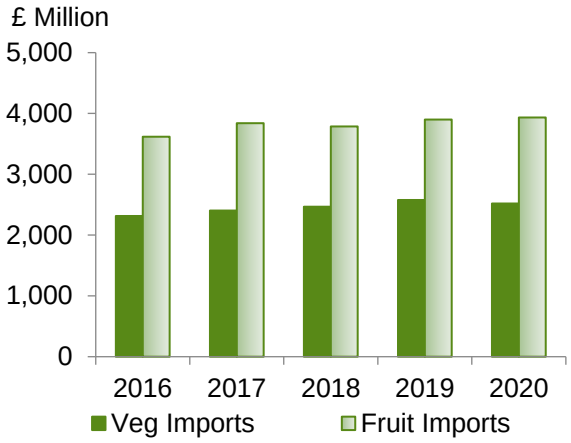


Figure 13 Exports of fruit and vegetables

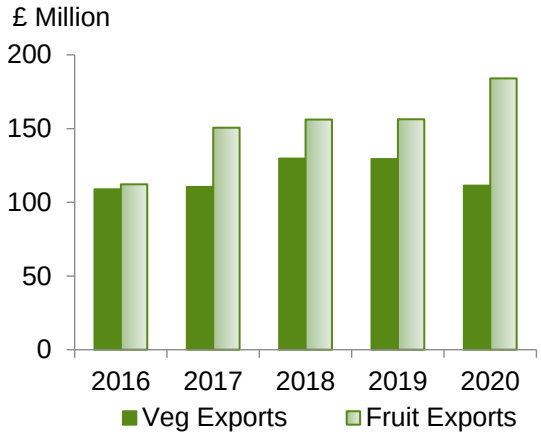


Table 4 Fruit and vegetable trade values and volumes

Calendar Year	2016	2017	2018	2019	2020 (prov)	% Diff
Imports value (£ million)						
Veg Imports	2,313	2,404	2,468	2,576	2,519	-2.2%
Fruit Imports	3,617	3,840	3,786	3,900	3,934	0.9%
Exports value (£ million)						
Veg Exports	109	110	130	129	111	-14%
Fruit Exports	112	151	156	156	184	18%

Calendar Year	2016	2017	2018	2019	2020 (prov)	% Diff
Imports ('000 tonnes)						
Veg Imports	2,369	2,184	2,268	2,356	2,180	-7.5%
Fruit Imports	3,847	3,984	3,661	3,657	3,549	-3.0%
Exports ('000 tonnes)						
Veg Exports	155	129	145	143	107	-25%
Fruit Exports	140	174	156	162	177	9.3%

Source: HMRC

- Vegetable exports (including re-exports) were worth £111 million in 2020, 14% lower than 2019 whilst volume decreased by 25% to 107 million tonnes.
- Vegetables imports cost just over £2.5 billion in 2020, a 2.2% decrease on 2019 with volumes decreasing by 7.5% at 2.2 million tonnes.
- Fruit exports (including re-exports) were worth £184 million in 2020, a 18% increase on 2019 the highest export value on record. Volumes of exports rose by 9.3% to 177 thousand tonnes.
- Fruit imports cost £3.9 billion in 2020, a 0.9% increase on 2019 with volumes decreasing by 3% at 3.5 million tonnes.

Imports to the UK by country of fruit and vegetables

Figure 14 Vegetable imports by country as percentage of total value

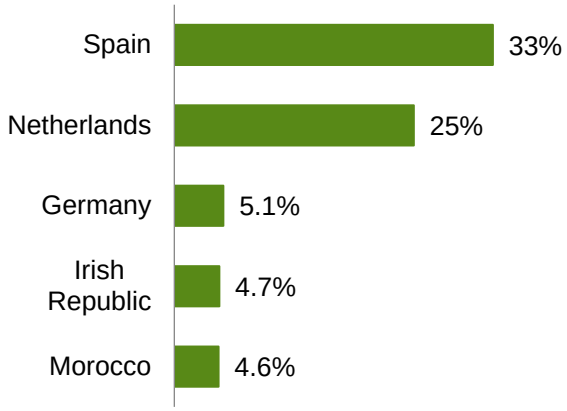


Figure 15 Fruit imports by country as percentage of total value

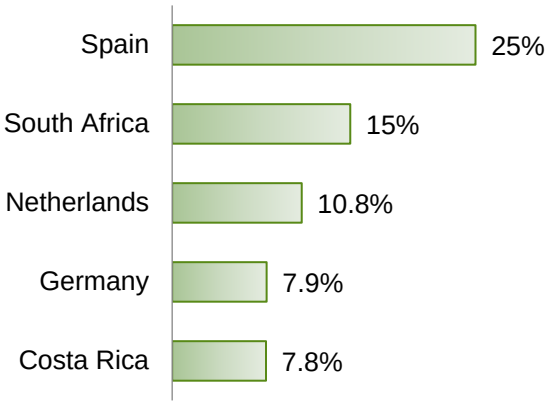


Figure 16 Vegetable exports by country as percentage of total value

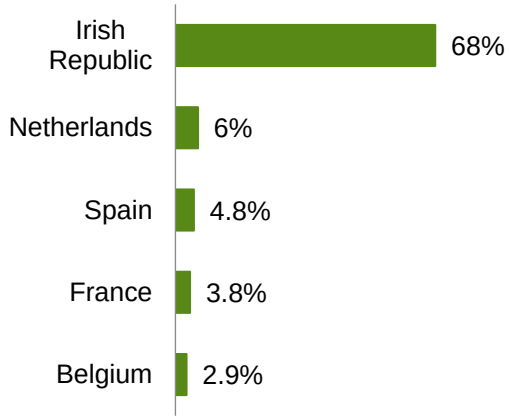
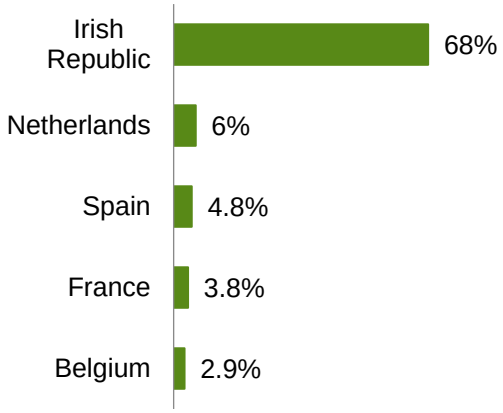


Figure 16 Vegetable exports by country as percentage of total value



- The three key imported vegetables were tomatoes, onions and lettuce. Most onion, tomatoes and sweet pepper imports came from Spain the Netherlands and the Irish Republic.
- The three key imported fruit were bananas (Colombia and Costa Rica), grapes (South Africa and Spain) and other soft fruit (Spain and Peru).

Section 4 – Ornamentals

- Ornamental plants and flowers were worth £1.4 billion in 2020, a decrease of 1.2%. The ornamental industry had a difficult start to the year facing a particularly difficult time at the start of the first lockdown with coronavirus related restrictions causing garden centres to close during the critical selling period of the marketing year. Nurseries changed selling strategies where possible to include online sales, home deliveries and click and collect orders, many using these methods for the first time. Some lost sales were recovered later in the year when demand increased, and growers produced faster growing plants to replenish the earlier losses.
- Hardy ornamental stock increased in value by 1.4% to £950 million in 2020.
- The pot plant sector decreased by 11% to £283 million.
- Flowers and bulbs showed a 3.9% increase in value to an estimated £124 million.

Table 5 Value of ornamentals

£ million

Calendar Year	2016	2017	2018	2019	2020 (prov)	% Diff
Flowers and Bulbs	93	130	122	119	124	3.9%
Pot Plants	305	299	307	317	283	-10.6%
Hardy Ornamental Nursery Stock	892	934	910	937	950	1.4%
UK Total:	**1,290**	**1,363**	**1,339**	**1,374**	**1,358**	-1.2%

- The value of ornamental imports cost £1.2 billion, a 4.1% fall on 2018.
- Exports of ornamentals were worth £68 million in 2020, an 11% decrease on 2019 (see tables 23 and 24 in the dataset for more details on imports and exports of ornamentals).

Section 5 – About these statistics

Methodology

Data presented in Horticulture Statistics publication are at United Kingdom level only.

For England and Wales, an external provider collects data on area, yield and production for Defra under contract. The members of the Fruit Crop Intelligence Committees were contacted individually for their information. The ADAS Fruit Key Convenor made direct contact with individual growers, Producer Organisations, ADAS colleagues, independent consultants, propagators and cider makers to gather confidential information on top fruit planting, grubbing and yields. This combination of the confidential information and the output of the Crop Intelligence Committee members has given a high level of assurance for the data collection methodology and summary data. For the field vegetables sector, the contractor continued to maintain our increased network of industry contacts and gained further additional key contacts, particularly in the South-West. These contacts cover key individual producers, packers and consultants, in all key vegetable sectors. For the ornamentals sector the contractor contacted a broad grower base that covers all sectors and targets larger companies, whilst ensuring that growers delivering across all market sectors (landscape, garden centres, DIY stores and retailers) were represented within the data.

For Scotland, the crop area data for fruit, vegetables and ornamentals come from the annual June Census. The latest edition of the Economic Report on Scottish Agriculture (ERSA), compiled by the Rural and Environmental Science and Analytical Services division (RESAS) in the Scottish Government (SG), includes information on the output and value of horticulture. Estimated prices use the previous year's survey data adjusted by latest price data taken from the Glasgow Market price data. Yields and price data for strawberries and blackcurrants are derived from a postal survey of horticultural units. Yield data for other vegetables and orchard fruit uses data collected by Defra for crops grown in England and Wales.

For Northern Ireland, the Agricultural Census, which is an annual sample survey of farmers conducted in June, collects crop area data. Key industry contacts provide representative yield and farm-gate price data. These are compared across sources and against general trends and taking into account wider agronomic and market knowledge of each of the different sectors to ensure the data are credible and representative. Price data take into account the end use of the produce and any price differentials in order to derive a representative weighted annual average price. The volume of output takes into account marketings in each particular year so for crops such as apples where the crop is marketed over two years, it will take into account marketings from two seasons for each particular calendar year. Emphasis is placed on data for the main high value items with mushrooms being the main contributor and driver for horticulture. In this case data are obtained directly from industry and represent 75 per cent of total mushroom production.

Trade data are sourced by Defra through HM Revenue and Customs import and export records. Detailed commodity codes are used to identify specific categories.

Impartial intelligence gathered from a wide range of sources provides the evidence to make the estimates in this document. The associated meta-data provides more details.

Quality

The data are collected and collated along sector lines by specialist horticultural consultants, who are knowledgeable of the crops and various production methods for each sector. Standard operating procedures are in place for collecting and recording the data. In addition to the broad method which sources and compares information from different origins, estimates are compared against other official survey data figures where possible e.g. Defra June Survey. The figures are also checked for consistency and trend analysis against historic data. Quality assurance of the data is carried out by the project manager and a dedicated quality control manager. The list of growers and other contacts is regularly reviewed and maintained to ensure that it is kept up to date. Panel membership relevant to fruit data collection is kept under review to assist maintenance of up to date knowledge of the crops being reported.

In addition, an annual narrative highlighting the main factors that have affected crop areas and harvested production is provided to explain and justify the estimates, including any significant variation in yields, production and shifts in cropping area.

Due to the way in which the data are sourced, it is not possible to calculate standard errors or confidence intervals. The general target coverage in terms of area grown is to obtain cropping information based on at least 80% of the latest Defra published figure for horticulture. For crops where production is more dispersed i.e. grown by a relatively large number of smaller growers, this can be challenging, in such cases, greater reliance is placed on information on sources other than just the key growers.

Revisions policy

Figures in the statistical notice and datasets for the latest year reported are provisional and subject to revision. We will provide information about any revisions we make to previously published information in the statistical notice, and the associated datasets. Revisions could occur for various reasons, including when data from third parties is unavailable or provisional at the time of publishing.

Revisions

The 2019 figures are now final estimates. From previously published figures changes made to the trade data, both imports and exports, for fruit, vegetables and ornamentals. This changed the percent of supplies provided by home-grown market.

Following user feedback, we have now produced a new hops dataset which includes all available data from 2010 onwards (see table 26 in the dataset).

Data users

The UK government use these statistics to support policy makers and improve profitability of the horticulture sector, to monitor productivity and competitiveness including supply and self-sufficiency, to inform growers and the trade about markets, to assess the impact of disease outbreaks, e.g. E-coli.

Future publications

This is an annual release. The next release will be in July 2021.

Section 6 - Glossary

- **Planted Area (hectares)** - This relates to the 'planted' area on which the crops are actually grown - excluding hedgerows etc. In the case of orchards it relates to the 'tree' area rather than the field area (this is in line with the Orchard Fruit Survey).
- **Marketable Yield (tonnes per hectare)** - This relates to the average tonnage actually harvested per planted hectare taking into account any waste losses (post-harvest). Wastage relates to any post-harvest item for which no income is obtained, such as storage losses, including both weight loss and rots. • Marketable Production (tonnes) - The total figure for the harvested crop is derived from the planted area multiplied by harvested yield taking into account wastage figures (post-harvest).
- **Crop Year** - The crop year will vary according to the production pattern of each crop and when the majority of the crop is harvested and marketed. Some crops may mature early, others late; in either case production will be assigned to the crop year in which the majority of the crop was marketed.
- **Multi Cropping** - The cultivation of more than one crop on the same piece of land in one year. Multi-cropping of sequentially planted crops is taken into account when calculating areas (e.g. of lettuce), but in the case of cucumbers, although the long-season crop is planted either once or twice during the season, it is counted as a single crop for area purposes, with each crop yield being totalled through the season to provide a single production figure. This accords with industry practice.
- **Farm-gate prices (in £/tonne) or value based on farm-gate price** - The price the farmer is paid for his produce with no extra delivery or packaging costs.