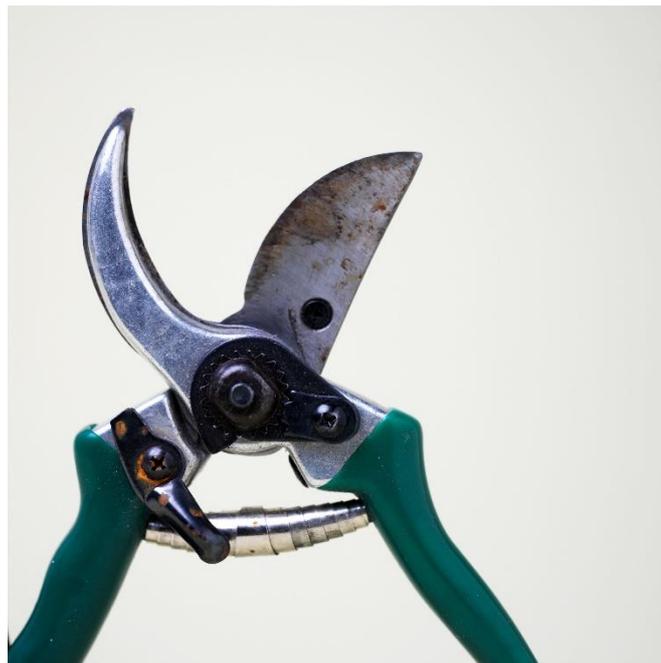




Farm Business Survey

2019/2020

Horticulture Production in England



Richard Crane, Tim Adams
and Kate Silvester



Farm Business Survey

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Richard Crane, Tim Adams
and Kate Silvester

RBR at Reading

Agriculture and Food Investigation Team
(AFIT)

School of Agriculture, Policy and Development
University of Reading

Earley Gate

Whiteknights Road

Reading RG6 6EU

Telephone : 0118 378 7426

E-mail : r.t.crane@reading.ac.uk

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Foreword to the First Series

This report is one of a series being produced based on the results of the Farm Business Survey (FBS) for England. The annual Farm Business Survey is the most comprehensive and independent survey of farm incomes and provides a definitive data source on the economic and physical performance of farm businesses in England. It is conducted by a Consortium comprising the Universities of Cambridge, Newcastle upon Tyne, Nottingham and Reading, and Askham Bryan, Duchy and Imperial Colleges. The Consortium is led by the University of Nottingham and its members work in partnership, using uniform and standard practices in reporting on their findings to ensure consistent data quality, accuracy and validity. The Survey is financed by Defra and the Consortium values greatly the input of their staff.

These detailed reports for various farm types and enterprises are in addition to the comprehensive Farm Business Survey Reports for Government Office Regions published at www.farmbusinesssurvey.co.uk. The Consortium is seeking by these additional reports to ensure that timely and relevant information is available to farmers, consultants, advisers and other organisations and individuals interested in farming and land management. The analysis and publication of these reports uses data from farm businesses across England, with an individual member of the Consortium undertaking the research analysis. In line with the ethos of the Consortium, these reports present results in such a way as to ensure a significant element of continuity and consistency from one report to the other, whilst also ensuring that each report captures the contemporary issues of relevance to the sector of agriculture in England to which it relates.

We believe these reports will make a valuable and useful contribution to the farming industry and we commend them to you.

Prof. Martin Seabrook

(Chief Executive of the Consortium)

Spring 2007

Foreword to the Fifteenth Series

Welcome to the fifteenth series of reports on the economics of agriculture and horticulture in England from *Rural Business Research (RBR)*. At a time of change, uncertainty and opportunity, planning ahead on the basis of data and evidence is crucial. Some key points below outline the market, policy, physical and biological environments through which agriculture and horticulture have operated in the last 12 months. These also highlight the importance of our work on the Farm Business Survey (FBS) that is only achieved through the highly valued co-operation of participating agricultural and horticultural businesses.

The new Agriculture Act that received Royal Assent in the closing weeks of 2020 now means that the sector no longer operates within the Common Agricultural Policy. The development of the Agriculture Act relied extensively on evidence from the FBS that demonstrated the reliance of key sectors on the Basic Payment Scheme (BPS) and the need for a longer 'transition period' than was initially proposed. The recently published Path to Sustainable Farming outlines the broad direction of the policy environment over the 2021-2027 period, as the phased decline in BPS support makes way for increased payments for public goods. There will be opportunities for businesses to be supported to increase farm efficiency and productivity, enhance animal welfare and reduce agriculture's 'carbon footprint'. The UK-EU trade agreement has been broadly welcomed by the industry. During the last 12 months our industry has endured an exceptionally wet winter of 19/20 that impacted crop establishment and gave way to a spring drought followed by a low yielding and sometimes difficult harvest. The impact of challenging weather and the Covid-19 pandemic have been felt in very diverse ways across agricultural and horticultural businesses. While the full impact of these challenges on the economics of agriculture and horticulture won't be collected and analysed until later in 2021, the FBS was once again drawn upon by Government to evidence the need for specific Covid-19 related support packages including the Dairy Response Fund.

For the 2019/20 financial year, which covers the 2019 harvest, average Farm Business Income (FBI), derived from our work on the FBS, fell to £46,000 per business, from £50,400 in 2018/19. Seldom are the fortunes of the different agricultural and horticultural sectors aligned. In 2019/20 Upland Grazing Livestock saw an increase of 47% in FBI, from a low base to a slightly higher one (£22,800); by contrast the average Mixed farm business income fell by 36% to £28,900. Generally lower cereal prices negatively impacted Cereals farm businesses, while livestock farms, in particular Pig and Poultry businesses, benefited from lower feed costs.

As with our previous editions of these reports, available at www.ruralbusinessresearch.co.uk, our core aim is to inform agricultural and horticultural businesses about the economics in their sector. This series of reports, and our work on the FBS more generally, would not be possible without the cooperation of the farmers and growers who participate in the FBS to ensure that the data we provide for policy making, and in our reports and free to use online data services at www.farmbusinesssurvey.co.uk, is truly representative of the sectors. Our sincere thanks therefore go to the farmers and growers for their most valuable contribution.

Professor Paul Wilson

Chief Executive Officer, Rural Business Research
February 2021

www.ruralbusinessresearch.co.uk

Acknowledgements

Rural Business Research thanks sincerely all those farmers and growers who have voluntarily provided records and information on which the annual Farm Business Survey, and this report, is based.

The basic information on which this report is based was collected on behalf of, and largely financed by, the Department for Environment, Food and Rural Affairs and is Crown Copyright.

The views expressed in this publication are those of the authors and are not necessarily shared by other members of the University or by the University as a whole.

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SUMMARY

Section 1

An overview of the horticultural industry in the United Kingdom (UK) using external data, including government published statistics and information from the press.

The report illustrates the importance of horticulture to UK agriculture output, the composition of its sectors and highlights historical and current trends in the output, prices and the areas used for crop production. The review also includes price indices for key products and inputs. The numbers that appear in square brackets relate to the sources of information and these references are fully listed on Page 66.

Highlights:

- In 2019, the output from horticulture was £3,787 million, 14% of total agricultural output [1]
- During the last decade, there has been an average annual increase of 2.4% in output (based on current prices) for total horticultural production [1]
- Vegetable production remains the largest horticultural sector, in terms of both land use and output, accounting for 39% of total UK horticultural output and 71% of total productive outdoor horticultural area in 2019 [1,2]
- The proportion of vegetable production has reduced over the last 30 years, from a decade average of 53% in 1990 to 1999, to 41% in the most recent decade, 2010 to 2019 [1,2]
- Output from ornamentals was an average of 38% during the decade 2010 to 2019, which was 1% above the previous decade [1,2]
- Fruit output, at 21%, has shown an increase from the 17% average in the previous decade [1,2]
- In 2019, the UK was 38.1% self-sufficient in all vegetables, 19% in all fruit and 56.4% in all ornamentals, in terms of value [1,2]
- The index of producer prices showed some wide variability between 2018 and 2019 with indices for fresh fruit up eleven points and fresh vegetables up six points [3]
- The index of purchase prices saw fuel for heating continue to increase, rising from 107.5 to 111.6, along with fertilisers & soil improvers from 100.8 to 103.7, while sprays reduced from 134.2 to 133 [4]

Section 2

A review of the financial results derived from the Farm Business Survey (FBS) for the 2019/20 financial year.

The stratification of the FBS horticulture sample is explained and key trends are shown for the businesses included, both as a whole, and for the four main groups of Glass, Fruit, Hardy Nursery Stock (HNS) and Other Horticulture. The results for each group are presented in tables reporting on output, costs and Farm Business Income (FBI) at a business level, per hectare and per £100 of gross output basis.

Highlights:

- The number of FBS eligible horticultural businesses in 2019/20 was 2,572, while the total FBS sample was 151 businesses, representing 5.9% of the national population of eligible horticultural businesses

- Weather conditions for the 2019/20 financial year were variable through the season; although 2019 was a warmer than average year, there were heavy-rainfall events throughout spring and summer
- Profitability for all horticultural businesses, as measured by Farm Business Income (FBI), fell by 18.6%, to an average of £42,392 per business in 2019/20
- Specialist Glasshouse businesses increased profitability by an average of 35%
- Specialist Fruit and Hardy Nursery Stock businesses both saw their average profitability fall, by 17% and 14% respectively

SECTION 1: THE HORTICULTURAL SECTOR

An overview of the horticultural industry in the United Kingdom (UK) using external data, including government published statistics and information from the press. The numbers that appear in square brackets relate to the sources of information and these references are fully listed on Page 64.

1.1 The contribution of horticulture to UK agricultural output

- Total agricultural output in the UK in 2019 was £27,273 million, up 0.3% from the previous year
- Total horticultural output in the UK in 2019 was £3,787 million, contributing 14% to total agricultural output
- Total horticultural output increased by £116 million between 2018 and 2019, up by 3.2%
- Average horticultural output in the ten-year period 2010 to 2019 was £3,491 million, an increase of £751 million (27%) compared with the previous 2000 to 2009 period average

1.2 Historic changes in the composition of the main sectors of horticulture

- Horticulture can be sub-divided into its three main sectors of fruit, vegetables and ornamentals for reporting purposes
- The area used by each sector has varied over the past thirty years, however, during the past decade from 2010 to 2019 the vegetable sector accounted on average for the largest proportion of land use (71%), followed by fruit (22%) and ornamentals (7%)
- The total area of land utilised for horticultural production since 1990 averaged 176,519 ha; from a peak of 213,648 ha in 1986, to a low of 161,945 ha in 2016. The total area decreased by 1% from 2018 to 163,282 ha in 2019
- Output has also varied over the past thirty years, which on average has seen the vegetable sector as the greatest contributor (47%), followed by ornamentals (36%) and fruit (17%)
- In 2019 actual output for the sectors was:

○ Vegetables	40%		40% }
○ Ornamentals	37%	compared to	38% }
○ Fruit	23%		22% }
- In value terms, horticultural output in 2019, (compared with 2018) was:

○ £1,481 million for vegetables	(up 2% from £1,452 million)
○ £1,419 million for ornamentals	(up 0.8% from £1,407 million)
○ £887 million for fruit	(up 9.3% from £812 million)

1.3 Horticultural production in the past decade (in current terms)

- The value of total annual horticultural production in the UK has averaged £3,238 million in the decade since 2010
- In this decade, production started at a low of £2,848 million in 2010, and increased to a peak of £3,775 million in 2019
- Between 2010 and 2019, total horticultural production grew in value by 33% with the different sectors showing a wide variation in growth rates as noted below:
 - Vegetables from £1,274 million to £1,481 million, up 16%
 - Fruit from £578 million to £875 million, up 51%
 - Ornamentals from £996 million to £1,419 million, up 43%

Figure 1.1 Value of horticultural production (current prices: £m)¹

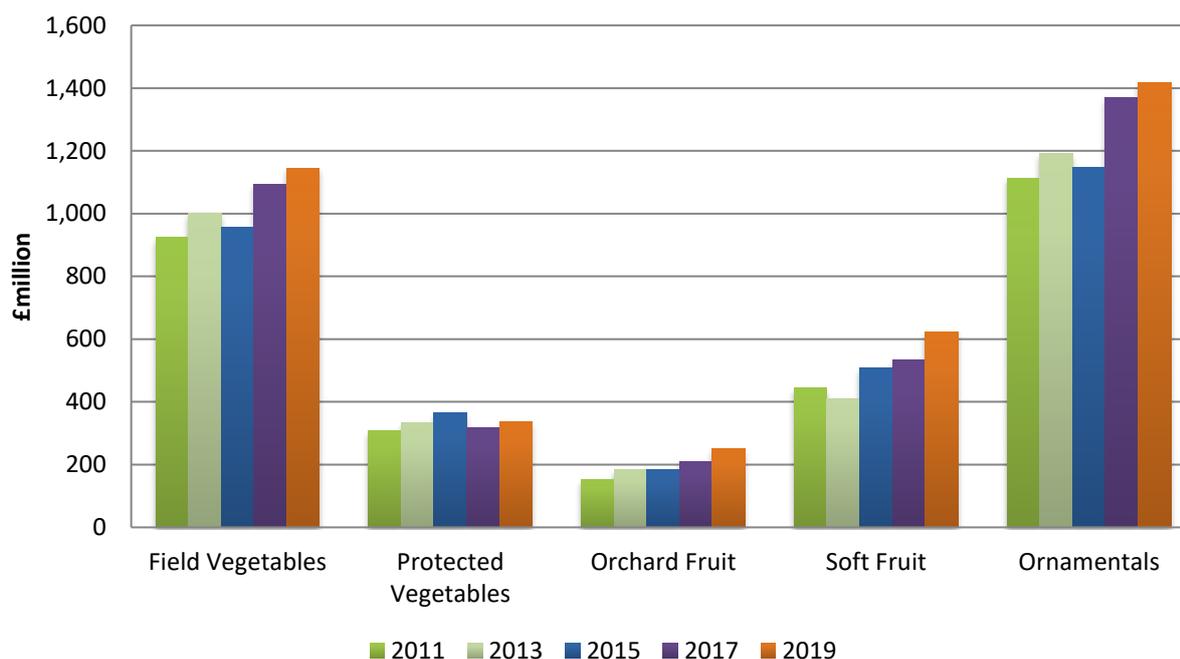


Table 1.1 Area of outdoor and protected crops in the UK (ha)^{1,2}

	2011	2013	2015	2017	2019
Glasshouse crops (excl. protected vegetables)	1,282	1,728	1,799	1,981	2,026
Protected Vegetables	695	827	868	826	799
Outdoor Ornamentals	11,258	11,891	12,730	12,512	11,352
Field Vegetables	128,679	115,930	122,885	117,067	114,513
Orchard Fruit	23,665	23,398	25,887	24,449	23,639
Soft Fruit	9,730	9,580	9,951	10,747	10,953

Note: The area of crops in table 1.1 relate to the total area, which for some crops will be for more than one crop harvested from the same area of land in the same cropping year (multiple cropping).

- The area of glasshouse crops (excluding protected vegetables) increased by 58% from 2011
- The area of protected vegetables increased by 15% from 2011
- The area of outdoor ornamentals increased by less than 1% from 2011, but fell by 9.3% from 2017
- The area of field vegetables decreased by 11% from 2011
- The area of orchard fruit in 2019 was very similar to that in 2011, but fell by 3.3% from 2017
- The area of soft fruit has grown by 12.6% from 2011, but only 1.9% growth between 2017 and 2019

1.4 The horticultural sector in 2019

- The total value of horticultural output in 2019 amounted to £3,775 million
- Field scale vegetables comprised the largest share of total output at 30%
- Flowers and bloom accounted for the lowest share of the total output at 3%

Figure 1.2 Value of horticultural produce in 2019 by proportion of total output ¹

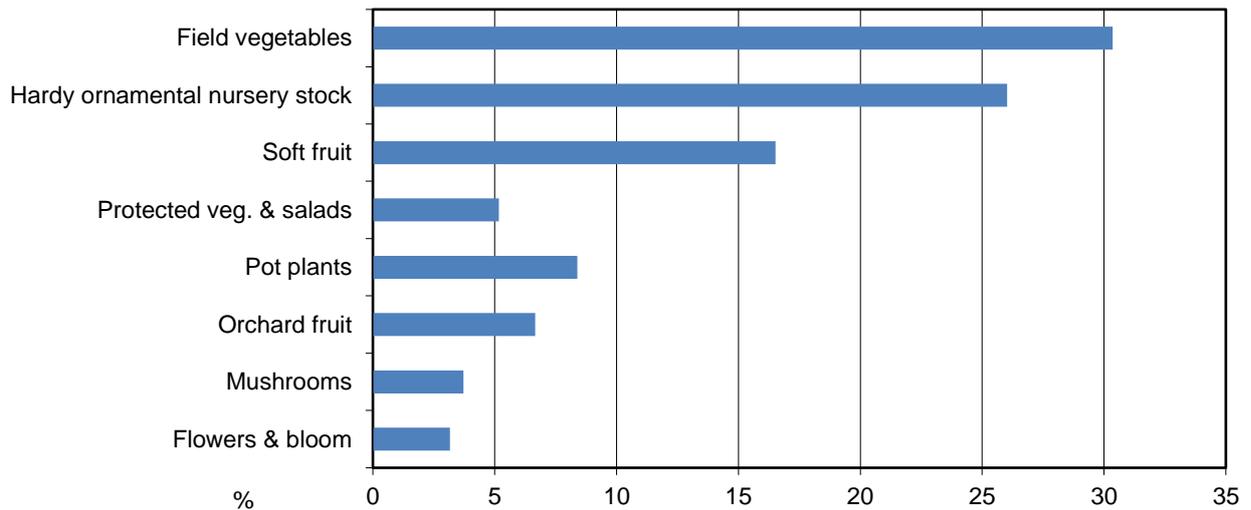
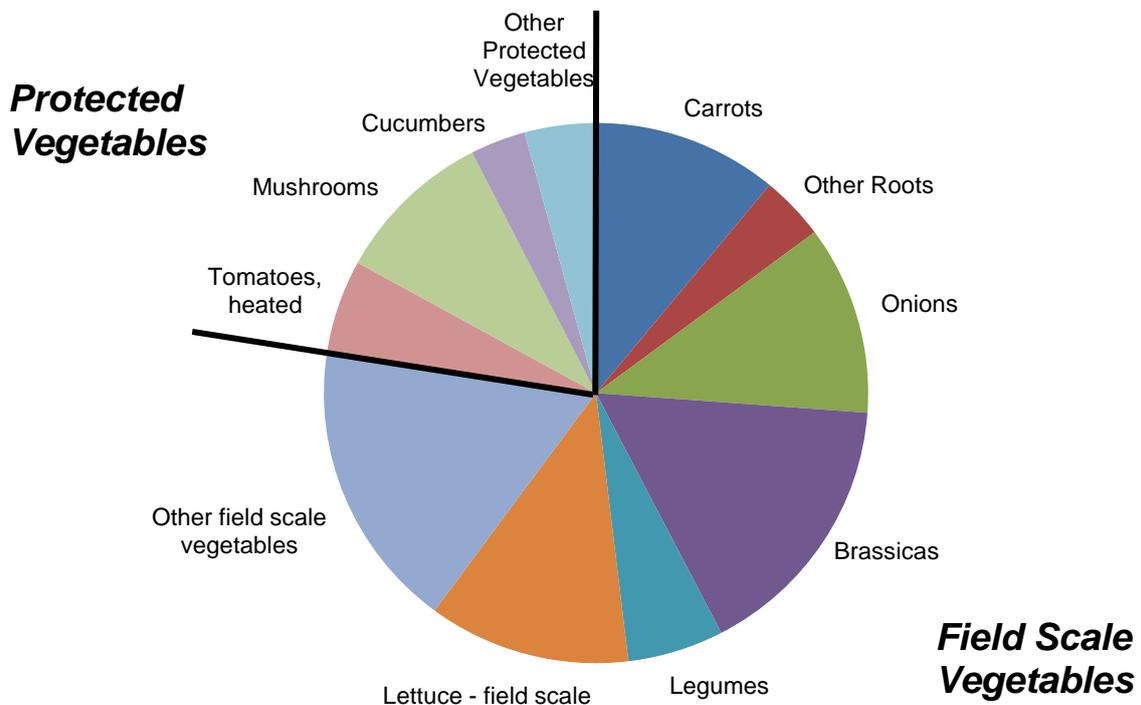
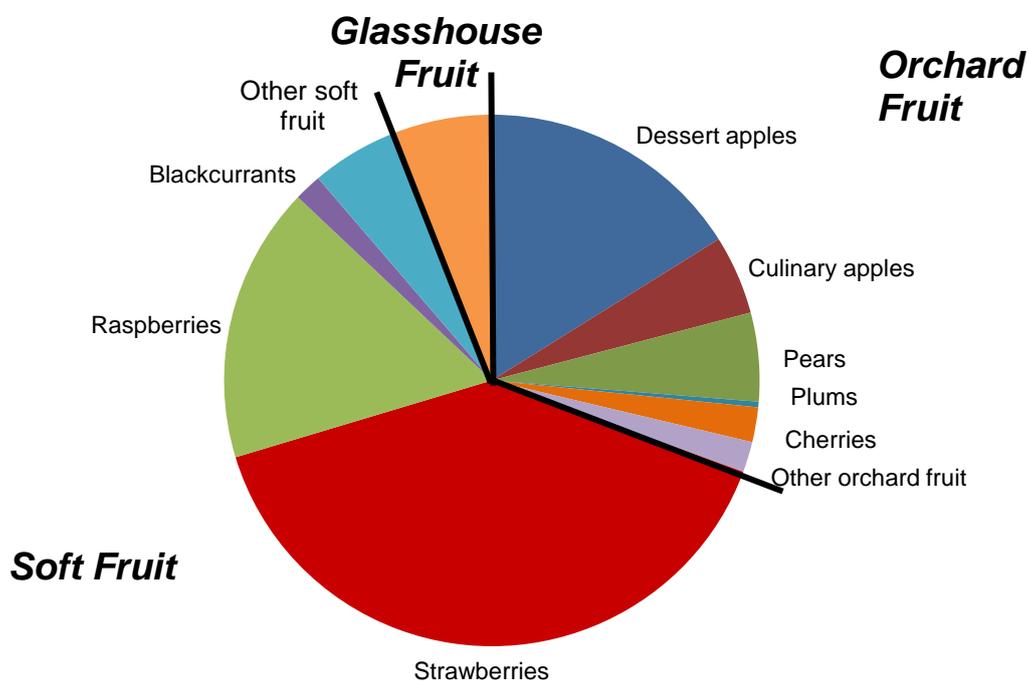


Figure 1.3 Composition of vegetable output in 2019²



- Field scale vegetable production account for 77% of total value of vegetables produced, including brassicas, carrots, legumes, parsnips, turnips, swede, courgette, asparagus, watercress, leeks, lettuce, rhubarb, celery and onions (dry bulb and green)
- Other field scale vegetables account for the largest single proportion by category of the total vegetable value at 17%, followed closely by Brassicas at 16%
- Protected vegetables, including crops grown in both heated and cold glasshouses and polythene tunnels, account for 23% of total vegetable value
- Mushrooms and tomatoes are the highest contributing protected vegetables to the total vegetable production value, at 9% and 6% respectively

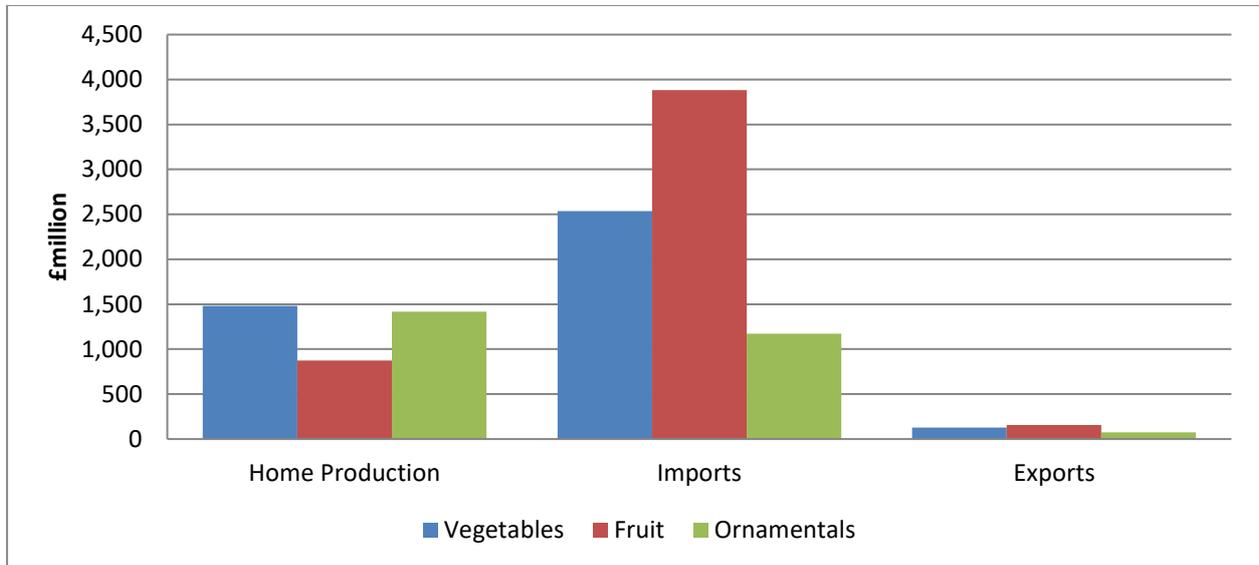
Figure 1.4 Composition of fruit output in 2019²



- Total fruit output by value was £875 million, with the production of field grown soft fruit generating £554 million (63.3%), orchard fruit £268 million (30.6%) and glasshouse fruit £53 million (6.1%)
- Strawberry production contributed the greatest share of all soft fruit production at £348 million (63%), 40% of total fruit production
- Dessert apples accounted for 53% of orchard fruit output (£141 million) in 2019, and was 16% of total fruit production with raspberries just above at 17%

1.5 Imports and exports of horticultural products

Figure 1.5 Value of vegetables, fruit and ornamentals 2019 (£m)^{1,2}



Vegetables

- The UK was 38.1% self-sufficient in all vegetables in terms of value in 2019, averaging 39% during the decade 2010 and 2019
- Between 2018 and 2019 the value of imports increased by 2.8% to £2,537 million, an all time high, whilst the value of exports dropped by 1.4% to £128 million
- The value of home-produced vegetables in actual prices increased by 17.4% between 2010 and 2019, to £1,481 million

Fruit

- In 2019, in terms of value, the UK was 19% self-sufficient in fruit, 1% above the average over the past decade, since 2010
- Exports and imports of fruit are of the greatest value for the three groups of horticultural produce. Between 2018 and 2019 fruit exports increased by 2.5%, whilst the value of imports fell by 0.6%
- The value of home production in actual prices increased between 2010 and 2019 by 50.8%, and is now at the highest level of £875 million

Ornamentals

- In terms of value, self-sufficiency for ornamentals in 2019 was 56.4%, averaging 54% since 2010
- Between 2018 and 2019 the value of imports decreased to £1,171 million, down 1.9%, while the value of exports dropped by 5.4% to £76 million
- The value of home production in actual prices increased between 2010 and 2019 by 42.5% to £1,419 million

1.6 Farm gate prices (actual): recent trends

- The fruit and vegetable sectors have seen significant price fluctuations between 2010 and 2019. As shown in Figure 1.6, strawberries are now at their highest price within this period, at 316 p/kg, raspberries are also at their highest price since 2010, making 824 p/kg in 2019
- Top fruits shown in Figure 1.7 are also all at their highest value in the 2010 to 2019 period. In the last ten years dessert apple prices rose from a low of 57p/kg to a high of 92 p/kg in 2019. Plums & gages have seen the largest increase, from 87 p/kg in 2010 to 163 p/kg in 2019
- Brassicas, namely brussel sprouts, cabbage and calabrese, have shown considerable inter-year variability, with an average price fluctuation between lowest and highest prices of 172% during the 2010 to 2019 period
- Vegetables excluding brassicas, namely carrots and parsnips, also showed inter-year variability, with an average price changes of 45%, between the highest and lowest point in the last ten years
- Salad crops, i.e. lettuce, tomatoes and cucumbers, recorded price changes between lowest and highest point of 115%, 67% and 48% respectively over the period 2010 to 2019

Figure 1.6 Average soft fruit farm gate actual prices³

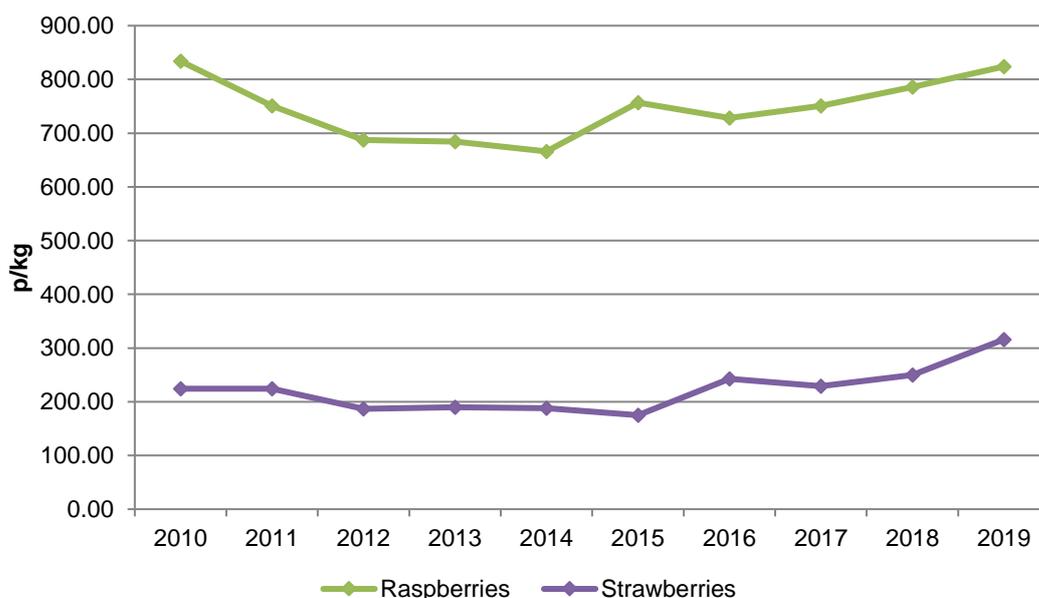


Figure 1.7 Average top fruit farm gate actual prices³

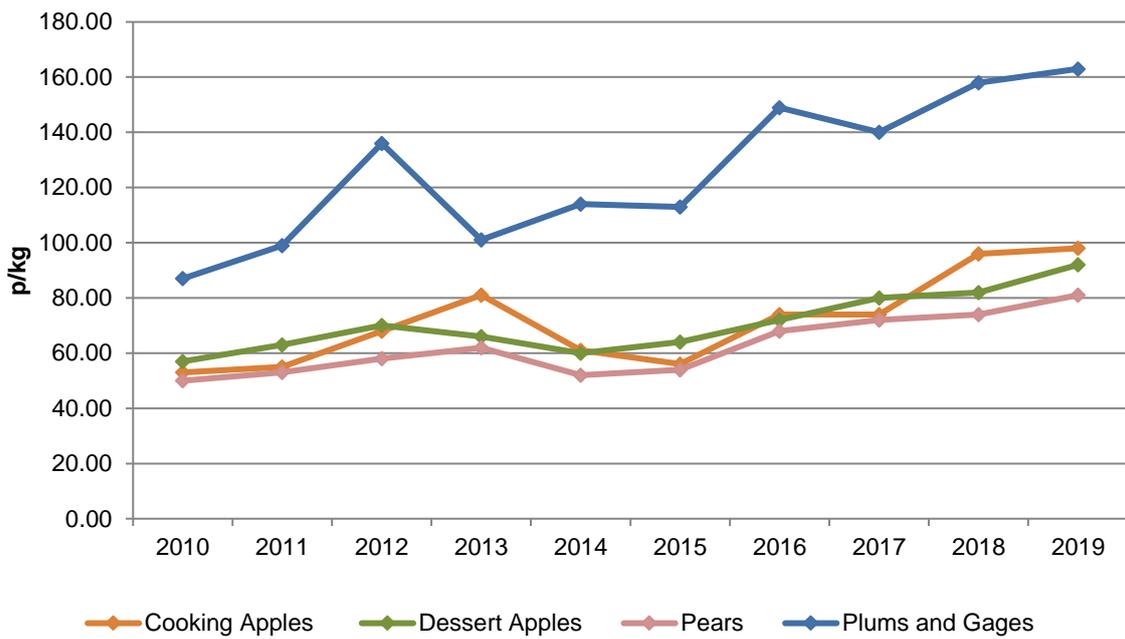
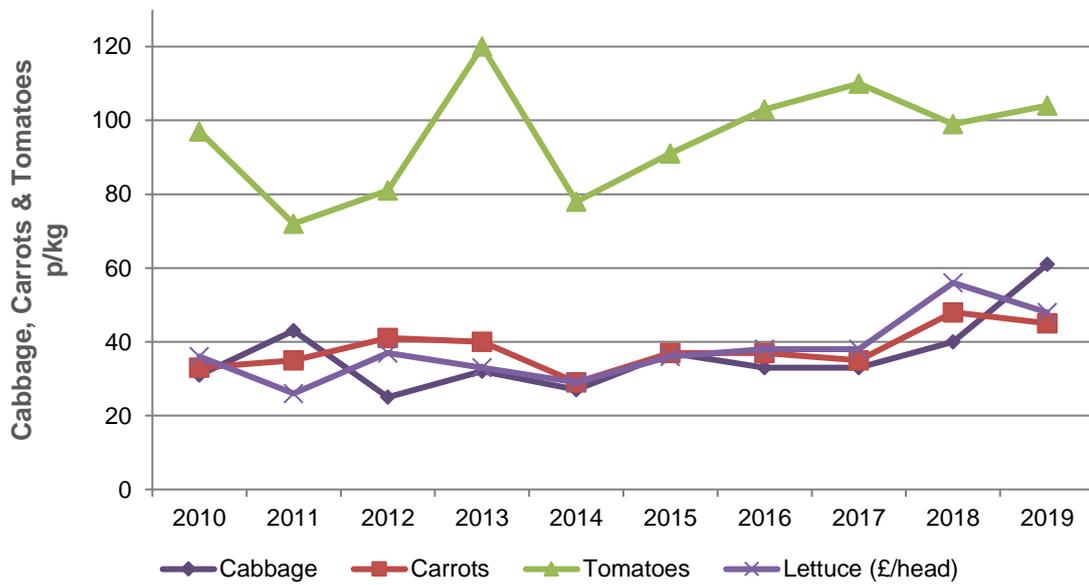


Figure 1.8 Average vegetable farm gate actual prices³



1.7 Price Indices in the UK

Table 1.2 Index of producer prices (Index: 2015 =100)⁴

	2015	2016	2017	2018	2019
Dessert apples	100.0	102.4	115.5	123.0	125.9
Dessert pears	100.0	110.7	127.4	131.2	143.2
Strawberries	100.0	111.8	117.6	116.5	133.4
All fresh fruit	100.0	107.6	115.3	119.5	130.2
Lettuce	100.0	111.1	107.9	138.2	121.4
Onions	100.0	114.4	116.6	130.4	161.0
Cabbage	100.0	109.7	113.4	126.1	140.6
All fresh vegetables	100.0	110.2	106.9	119.4	125.2
Flowers & plants	100.0	100.8	105.1	105.3	105.3

- Data based on a calendar year. These periods most closely resemble the FBS data
- Output indices reflect the price farmers and growers receive for their produce at farm gate price. Because of the fluctuating value of inputs and outputs over a longer period, some years are often reset, so future movements can be compared against a baseline
- The index prices for 2015 are all set to 100.0 to show the relative change in prices
- Dessert apples saw an increase of two points from 2018 to 2019, whereas dessert pears and strawberries saw significant increases of twelve and sixteen points respectively
- Vegetables show significant increases from 2018 to 2019 indices; with onions rising by thirty points and cabbage rising by fourteen points, with the exception of lettuce, dropping by sixteen points
- Flowers & plants have remained the same at 105.3

Table 1.3 Index of purchase prices (index 2015 =100)^{4,5}

	2015	2016	2017	2018	2019
Current Inputs					
Seeds	100.0	101.5	100.0	111.6	113.3
Fertilisers & soil improvers	100.0	82.6	89.6	100.8	103.7
Plant protection	100.0	100.0	106.8	134.2	133.0
Fuel for heating	100.0	97.1	100.7	107.5	111.6
Full-Time hired labour*	100.0	102.2	105.6	108.7	112.3
Capital inputs					
Machinery & other equipment	100.0	100.0	100.8	106.0	107.5
Buildings	100.0	99.4	103.4	107.9	110.5

* Farm Business Survey figures

- Input indices reflect the prices farmers and growers pay for goods and services, either used in the production process or investments required for production
- As in Table 1.2, the 2015 figures are set to a baseline of 100.0 to show the change in input prices for the following three years
- The index of purchase prices has shown an increase of three points for fertilisers, four points for heating fuel and two points for seeds between 2018 and 2019
- Full-time hired labour costs for Agricultural & related trades have grown steadily year on year, increasing by twelve points since 2015. It should be noted that within the Horticultural industry there is a strong reliance on casual labour which is not included in this index
- After the significant increase of five points from 2017 to 2018, machinery & other equipment has returned to a lesser increase of one point from 2018 to 2019
- Buildings inputs have also shown a smaller increase of three points compared to the previous year's five point increase

SECTION 2: FINANCIAL RESULTS FOR HORTICULTURE IN ENGLAND

2.1 Introduction to the data

The following series of tables are drawn from a sample of farmers and growers who participate in the Farm Business Survey (FBS) in England and whose businesses are classified under one of the four main Defra horticultural type groups. These four type groups of Specialist Glass, Specialist Fruit, Specialist Hardy Nursery Stock and Other Horticulture are defined below.

For the purposes of the Defra classification, farms growing field scale vegetables and arable crops are classified as General Cropping farms, and so their results are not included in these tables, although farms growing field scale vegetables without arable crops are recorded in the 'Other Horticulture' typology group.

The data in this report were compiled from the 2018/19 and 2019/20 FBS and can be accessed at:

- www.farmbusinesssurvey.co.uk and at
- <https://www.gov.uk/government/collections/farm-business-survey>

2.2 Definition of horticultural type groups

Horticultural businesses are defined as businesses where horticultural crops or permanent crops including fruit, either alone or in combination, account for over two thirds of total standard output.

Specialist glass

- Market garden vegetables and flowers under glass (either alone or in combination) accounting for more than two thirds of the total standard output of the business, including walk-through polythene tunnels
- The specialist glass businesses have been further sub-divided into those businesses with mainly edible crops (more than 50% of crop output from edible crops) and those with mainly ornamental crops (more than 50% of crop output from ornamental crops)
- In addition to this, the specialist glass group has been sub-divided by the level of intensity of glasshouse production, showing both '50% or more' and '90% or more' of total crop output produced from protected crops

The results from these businesses are found in the following tables:-

- Table 2.4 All specialist glass businesses
- Table 2.5 Specialist glass businesses, mainly edible crops
- Table 2.6 Specialist glass, mainly ornamental crops
- Table 2.7 Specialist glass (50% or more of crop output from glasshouse production)
- Table 2.8 Specialist glass (50% or more of crop output from glasshouse production), mainly edible crops
- Table 2.9 Specialist glass (50% or more of crop output from glasshouse production), mainly ornamental crops
- Table 2.10 Specialist glass (90% or more of crop output from glasshouse production)
- Table 2.11 Specialist glass (90% or more of crop output from glasshouse production), mainly edible crops
- Table 2.12 Specialist glass (90% or more of crop output from glasshouse production), mainly ornamental crops

Specialist fruit

- Fruit (top and soft fruit) accounting for more than two thirds of total standard output of the business
- The specialist fruit group has three sub-groups of mainly top fruit businesses; mainly top fruit, top fruit excluding cider apples and specialist cider

The results from these businesses are found in the following tables:-

- Table 2.13 All specialist fruit businesses
- Table 2.14 Specialist fruit businesses, mainly top fruit
- Table 2.15 Specialist fruit businesses, mainly top fruit-excluding cider
- Table 2.16 Specialist fruit businesses, cider

Specialist hardy nursery stock

- Hardy nursery stock (HNS) accounting for more than two thirds of total standard output of the business
- The specialist HNS group has two sub-groups; intensive HNS crops with output more than £175,000 per hectare and extensive HNS crops with output less than £175,000 per hectare

The results from these businesses are found in the following tables:-

- Table 2.17 All specialist HNS businesses
- Table 2.18 Intensive HNS crops – crop output more than £175,000 per hectare
- Table 2.19 Extensive HNS crops – crop output less than £175,000 per hectare

Other horticulture

- Businesses in which none of the above categories accounts for more than two thirds of standard output
- The 'other horticulture' group has one sub-group of mainly outdoor vegetable growers

The results from these businesses are found in the following tables:-

- Table 2.20 All other horticulture businesses
- Table 2.21 Mainly outdoor vegetables – 50% or more of crop output derived from outdoor vegetables

2.3 The Sample

The Farm Business Survey (FBS) covers businesses with a Standard Output (SO) of 25,000 euros and above, and so the smallest 'commercial' horticultural businesses by June Survey definition are therefore not eligible for the FBS. SO is representative of the level of output that could be expected on the average farm under "normal" conditions (i.e. no disease outbreaks or adverse weather) and measures the total value of output of any one enterprise – it is calculated on a per head basis for livestock and per hectare basis for crops.

The sample is drawn from a stratified population of seven regions in England by the four main horticultural typologies of Specialist Glass, Specialist Fruit, Specialist Hardy Nursery Stock and Other Horticulture. Within each stratum, a single weight is calculated as the ratio of numbers of businesses in the population and in the sample. The weighting of the FBS results is a two-stage process with, firstly, an initial weight being produced and, secondly this initial weight then being adjusted by a calibration procedure. The weights are based on population data from the June business register (see Table 2.1) and are calculated for each design stratum. The initial weights for the FBS are based on the inverse sampling fraction. Suppose for example, there were 250 Cereal farms in the population and of these, 50 were sampled then these 50 sampled farms would be given an initial sample weight of 5 (250/50). These weights are then adjusted (Calibration Weighting) so that they produce representative population totals for a series of calibration variables for which accurate population values are known from other sources. This ensures that the weights produce precise estimates of other variables, with minimal bias, despite the inevitable imperfections of the sampling strategy. This weight when applied to each business represents the number of times that the business' data must be replicated in order to 'represent' the businesses not selected for the sample, so as to reflect the entire population. This weight is applied to all variables.

Since 2010, the classification to farm type for the June Survey database has been based on Standard Output (SO). A minimum size threshold is also used in order to eliminate those businesses which are not deemed to be commercially active. For horticultural crops, the threshold is: 1.0 hectare of orchard, 0.5 hectare of vegetable crops or 0.1 hectare of protected crops.

The number of FBS eligible horticultural businesses in 2019/20 was 2,572, while the total FBS sample for the 2019 cropping year was 151 businesses, representing 5.9% of the national population of eligible horticultural businesses.

Table 2.1 FBS sample compared with eligible* horticultural businesses for 2019

(*Businesses with Standard Output of 25,000 euros and above)

	England population 2019 June Survey (number of businesses)	FBS sample 2019 (number of businesses)	FBS sample as a % of population
Specialist Glass	254	42	16.5%
Specialist Fruit	676	40	5.9%
Specialist HNS	659	23	3.5%
Other Horticulture	983	46	4.7%
All Horticulture	2,572	151	5.9%

The 'All Horticulture' group results are based on a sample of 151 businesses and no outliers have been removed from this group.

Within the four broad horticulture groups, 70 crop types are recorded and they are grown in varying systems ranging from heated glasshouses to orchard fruit production, with market garden and Spanish tunnel production in between. Such diversity makes the raising of a representative sample very difficult, resulting in reporting often being based upon groups of a variety of similar but not identical activities to ensure minimum sample size criteria are met and the robustness of the data is maintained.

It is important to note that all surveys are subject to sampling error as they are not measuring the whole population, the FBS is no exception. It is common practice to publish 95% confidence intervals and error bars alongside any published estimated figures to give the reader an indication of the size of the sampling error. These signify that we are 95% confident that this range contains the true value. For simplicity within these reports, the confidence intervals have not always been published. Readers should be aware that the figures calculated from the FBS data have a level of uncertainty around them and that all figures are estimates. Generally, the smaller the sample size the greater the sampling error and the less confidence we have in the estimates. For details on the FBS confidence intervals, please refer to Defra FBS publications <https://www.gov.uk/government/collections/farm-business-survey>

2.4 Overview of 2019/20

- The average profitability as measured by Farm Business Income (FBI) decreased by 18.6% to £42,392 per business for the whole sample of businesses in 2019/20, when compared with 2018/19
- Three of the four horticultural groups (Specialist fruit, Specialist hardy nursery stock & Other horticulture businesses) experienced a fall in profitability, although Specialist glasshouse businesses saw an increase
- Weather conditions in the 2019 harvest year were mixed across the seasons;
 - Unlike the previous winter and the “Beast from the East”, February was the second warmest recorded since 1910, and the highest winter maximum temperature of 21.2°C was recorded at Kew Gardens
 - This trend continued for most of the year, with a greater than average number of sunshine hours, yet temperatures were less warm than both 2017 and 2018
 - Nevertheless, 2019 saw five named storms and a series of heavy-rainfall events in spring, summer and autumn, with rainfall in March and then June onwards being above average

2.5 Financial results for 2018/19 and 2019/20

- The results in this section are shown for businesses classified according to the Defra classification system, as described in section 2.3 of this report and are shown on a:
 - 'per business', 'per hectare' and 'per £100 of gross output' basis
 - results are based on the productive cropping area of the business
- Average results are shown for the 2018 and 2019 harvest years, together with premium results for the 2019 harvest year, where the sample size is large enough for publication:
 - The premium results are for the top quartile of businesses, as measured by a ratio of farm business output to farm business costs (including unpaid labour) and are shown on a per hectare basis
 - Weights are used to allocate farms into quartiles, so the number of farms in a quartile will not necessarily be equivalent to a quarter of the sample; this methodology provides for a better representation of the full farm population
- The total fixed costs include imputed items such as labour and rent, to calculate Management & investment income. When benchmarking businesses, these imputed costs are included so that businesses can be compared on an equal basis. However, adjustments are made to these figures to show Farm Business Income, which more closely resembles the actual profit of the business
- The horticultural sector represents a very diverse group of growers, with some operating highly intensive glasshouse operations and others engaged in more extensive top fruit and vegetable production
- Overall, the average Farm Business Income (FBI) of horticultural businesses decreased by 18.6%, to £42,392 per business in 2019; average total gross output for the sector increased by 23.4%, to £489,939 per business, compared with 2018, while total costs increased by 27.6%:
 - Specialist glass businesses were the only group to record an average increase in FBI, rising from £67,525 in 2018/19 to £91,219 in 2019/20
 - Other horticulture businesses saw the largest fall in average FBI, dropping from £46,305 in 2018/19 to £26,273 in 2019/20
- Where the data are derived from a sample of less than 15 holdings, there is a lower degree of confidence in the figures
- Due to a methodology change in 2019/20, permanent crop depreciation has increased significantly. This is because depreciation is now calculated on a straight line basis over the estimated life of an orchard from the first year of planting, whereas previously orchards were appreciated for several years before they began to depreciate. This has led to a one-off higher than normal depreciation charge in 2019/20

2.6 Specialist Glass [Tables 2.4 to 2.12]

There are nine tables reporting on the financial results of specialist glass businesses, differentiating between crop types (edible crops vs. ornamentals) and the level of glasshouse production.

- A number of businesses within the specialist glasshouse group have some outdoor crop production; the group has been sub-divided according to the intensity of glasshouse production between businesses with 50% or more of crop output derived from glasshouse production (Tables 2.7 to 2.9) and those with 90% or more of crop output derived from glasshouse production (Tables 2.10 to 2.12)
- Specialist Glass, all crops [Table 2.4]
 - The group includes both heated and unheated glasshouses and polytunnels

- Average productive cropping area in 2019 was 4.16ha, of which protected production was 1.31ha
 - The sample of 42 specialist glass businesses is split between 18 businesses specialising in edible crops and 24 businesses specialising in ornamental crops
 - On a per business basis in 2019, Farm Business Income (FBI) increased by 35.1% to £91,219. Both sub-groups saw profitability increase, with edible sector businesses seeing an average FBI increase of 40.7%, whilst the average ornamental FBI rose by 27.7%
 - In contrast, with an increase in average protected area from 1.07ha to 1.31ha, profitability on a per hectare basis rose by only 4%
 - The composition of cropping for these holdings varied slightly between 2018 and 2019; glasshouse tomatoes fell most significantly from 10.3% to 7.8%, whilst protected and outdoor ornamental crops remained the same at 61.6% of crop output
 - The financial performance of the premium group (top quartile) was two and a half times higher than the average results in 2019, and rose by 83% on a per hectare basis compared to the previous year; from £31,279/ha in 2018 to £57,162/ha in 2019
- *Specialist glass, mainly edible crops [Table 2.5]*
 - Profitability for this group, at £107,639 per business, showed an increase of 40.7% compared to the previous year
 - Despite a 5.3% drop in total output per hectare, there were savings in both variable and fixed costs, leading to a 14.8% increase in FBI per hectare
 - On a per £100 of gross output basis, this meant Farm Business Income rose from £14.50 to £17.60
 - The financial performance of the premium group (top quartile) was 1.8 times higher than the average results in 2019, with a higher gross margin but very similar fixed costs per hectare
- *Specialist glass, mainly ornamental crops [Table 2.6]*
 - Profitability for this group increased by 27.7% to £75,965 per business
 - The average glasshouse area rose by 32% to 1.02ha, whilst total output and FBI per hectare both fell slightly by 8%
- *Specialist glass businesses (50% or more crop output from glasshouse production) [Tables 2.7 – 2.9]*
 - These three tables provide the results for all specialist glasshouse businesses where 50% or more of the output is derived from glasshouse production, and for the sub-groups of those specialising in the production of edible and ornamental crops
 - The average profitability per business of this group, at £76,240, remains slightly below those with 90% or more output from glasshouse production, at £83,941; yet, on a per hectare basis the gap widened further, with 50%+ at £50,217/ha and 90%+ at £83,402/ha
- *Specialist glass businesses (90% or more crop output from glasshouse production) [Table 2.10]*
 - These tables provide the results for specialist glasshouse businesses where 90% or more of the output is derived from glasshouse production
 - Average Farm Business Income (FBI) increased by 79% to £83,941 per business
- *Specialist glass businesses (90% or more crop output from glasshouse production) – Mainly edible crops [Table 2.11]*
 - Tomato production accounted for 47% and soft fruit 17% of all glasshouse output for this sample of businesses in 2019

- Both total variable and fixed costs fell slightly on a per hectare basis, whilst total output was very similar, leading to a 52% increase in FBI per hectare, at £78,715
- The protected cropping area of these businesses rose to an average of 1.15ha, which is around 29% greater than that of the mainly ornamental businesses
- *Specialist glass businesses (90% or more crop output from glasshouse production) – Mainly ornamental crops [Table 2.12]*
 - In addition to the glasshouse area increasing by 34% to 0.89ha, the output per hectare also increased by 8%, leading to an increase in Farm Business Income (FBI) of 35% to £88,335 per hectare
 - With the productive area being much greater than that of the edible crop businesses, at 2.68ha, the ornamental businesses produce 53% more total gross output, £689,581/ha

2.7 Specialist Fruit [Tables 2.13 to 2.16]

- There are four tables reporting on the financial results for this type group and its sub-groups:
 - Table 2.13 shows the results for all specialist fruit businesses
 - Table 2.14 shows a sub-group of this sample for businesses with over 90% of their total crop output derived from top fruit
 - Tables 2.15 and 2.16 splits this down further to a group excluding cider apple growers and a group of predominantly cider apple growers
- *Specialist fruit businesses [Table 2.13]*
 - Within the specialist fruit group in 2019, the proportion of crop output from top fruit and soft fruit remained fairly similar to the previous year, at 45% and 54% respectively
 - The average cropping area rose significantly by 49% to 19.21ha, whilst the total gross output grew by 83% to an average of £436,270, mainly due to the increase in area
 - Looking at this on a per hectare basis, output from fruit increased by 27% to £18,493/ha, while other non-crop output rose by 11% to £4,171/ha, possibly by adding value to the crop by means of on-farm processing of fruit or offering customised pack house services to other growers
 - An increase in both variable and fixed costs per hectare, meant that the Farm Business Income (FBI) fell 44% to £1,031/ha and FBI per business fell to £19,813
 - Premium specialist fruit businesses derived 85% of their crop output from top fruit, and just 12% from soft fruit. With around half the total costs per hectare compared to the group average, these farms produced an average FBI of £2,143/ha
- *Mainly top fruit businesses - 90% or more crop output derived from top fruit [Table 2.14]*
 - This group includes businesses that specialise in top fruit production, with 90% or more of their total crop output derived from top fruit
 - In 2019, approximately 78% of crop output was derived from dessert & culinary apples, 7% from cider apples, 5% from plums and 3% from pears
 - Yields decreased slightly for dessert apples and more significantly for culinary apples in the 2019 harvest year, yet a small increase in price per tonne maintained the output of dessert apples, whilst the price for culinary apples dropped from £604/t to £381/t
 - The average price of fruit does not reveal the very wide variation in prices with some fruit achieving Grade 1 supermarket prices while less marketable fruit only achieve juicing prices
 - Cider apple yields remained the same, at an average of 30.2t/ha, with a £6.60 increase in price per tonne, giving a 6% increase in output per hectare

- Pear yields rose slightly by 0.6t/ha to 8.9t/ha, but more substantial was the rise in value of nearly £200 per tonne
- Average Farm Business Income (FBI) was £14,093 per business and £844 per hectare, in contrast to the £16,648 per business and £1,529 per hectare in 2018/19

- *Mainly top fruit businesses – 90% or more crop output derived from top fruit, excluding cider apple growers [Table 2.15]*
 - This sub-group of specialist top fruit growers consists of 20 growers in 2019, predominantly growing top fruit for eating
 - In 2018, around 82% of crop output was from dessert apples, 9% from pears, 5% from plums and 2% from culinary apples for processing and the fresh market
 - Approximately 26% of the total gross output was derived from other output, i.e. not from cropping
 - A 41% rise in productive cropping area was met with a consistent total gross output per hectare, rising slightly from £19,453/ha in 2018 to £19,993/ha in 2019. However, a significant increase in variable costs of 25% saw FBI drop more than 60% to £668/ha

- *Mainly top fruit businesses – 90% or more crop output derived from cider apples [Table 2.16]*
 - The data are derived from a modest sample size and thus there is a lower degree of confidence in the figures
 - The decrease in sample size from 10 businesses in 2018/19 to six in 2019/20 has had a significant impact on the results, with a substantial increase in the average cropping area from 12ha to 40ha in 2019/20
 - On a per hectare basis, the total gross margin remained unchanged, however the larger area has meant that the fixed costs per hectare are lower than the year before, so that the Farm Business Income (FBI) has increased from £751/ha to £1,423/ha in 2019/20

Table 2.2 Top fruit yields, prices and output* – 2018/19 and 2019/20

Top Fruit		2018/19	2019/20
Culinary Apples	tonnes/ha	26.6	17.4
	£/tonne	603.5	381.4
	£ output/ha	16,074	6,639
Dessert Apples	tonnes/ha	28.3	26.7
	£/tonne	625.1	665.3
	£ output/ha	17,312	17,384
Cider Apples	tonnes/ha	30.2	30.2
	£/tonne	113.8	120.4
	£ output/ha	3,438	3,634
Pears	tonnes/ha	8.3	8.9
	£/tonne	714.2	911.2
	£ output/ha	5,944	8,079

Note: * The areas used when calculating the per hectare figures are field areas (not tree areas) and the fruit tonnage is for all the fruit sold either fresh or for processing and juice.

2.8 Specialist Hardy Nursery Stock [Tables 2.17 to 2.19]

- There are three tables reporting on the financial results of Specialist Hardy Nursery Stock (HNS) businesses:
 - Table 2.17 covers all HNS businesses in the sample with tables 2.18 and 2.19 being sub-groups of the main sample
 - Table 2.18 is for businesses that have a crop output of more than £175,000 per hectare
 - Table 2.19 is for businesses that have a crop output of less than £175,000 per hectare
- *Specialist HNS businesses [Table 2.17]*
 - This group of businesses include growers of young HNS plants under protection, those growing plants outdoors and on hard standings, and a combination of these production systems
 - For these businesses, crop output was divided between outdoor production at 78% and protected production at 22%
 - Total gross output rose by 31%, but an increase in both variable and fixed costs led to a 14% drop in Farm Business Income (FBI) per business, to £70,776
 - Premium businesses from this group produced an average FBI of £43,881/ha compared with the average of £27,125/ha in 2019/20
- *Intensive HNS businesses (crop output more than £175,000 per hectare) [Table 2.18]*

- The sub-group covers businesses with a crop output of more than £175,000 per hectare
 - These businesses grow a significant amount of HNS under glass or walk-through polythene tunnels as well as outdoors on hard standings, and also higher value field crops. This year the proportion shifted slightly, with a 4.3% change from outdoor to protected growing, at 35.2% protected and 64.8% outdoor
 - Total gross output per hectare of these businesses was £379,979 on average, just short of five times greater than the extensive businesses
- *Extensive HNS businesses (crop output less than £175,000 per hectare) [Table 2.19]*
 - The table refers to a group of businesses with crop output of less than £175,000 per hectare, including rootstock and larger trees, as well as shrubs and smaller nursery stock
 - These businesses derive far less of their crop output from under glass or polythene (11%), with the vast majority coming from outdoor stock (89%)
 - For extensive businesses, variable costs are only 14% of the total spent by intensive businesses per hectare, whilst the fixed costs are 27% of the amount per hectare for intensive holdings
 - Farm Business Income (FBI) did fall slightly, to £42,333 per business, or £13,348 per hectare

2.9 Other Horticulture [Tables 2.20 and 2.21]

- *Other horticultural businesses [Table 2.20]*
 - The table refers to a diverse group of farms, for which crop output is comprised of a combination of outdoor vegetables, ornamentals, soft fruit, top fruit and farm crops
 - In 2019/20, the output from soft fruit was the greatest proportion at 37%, followed by farm crops at 22%, outdoor vegetables at 16% and glasshouse crops at 12%
 - Despite only a slight rise in variable costs and a marginal drop in fixed costs, the decrease in total gross output of 5% per business, or 6% per hectare, saw profitability fall by more than 40% both per business and per hectare
 - Premium businesses recorded a FBI per hectare of £2,520, compared to the average of £1,007, and derive the majority (49%) of their output from other crops, including Christmas trees
- *Mainly outdoor vegetables – 50% or more output derived from outdoor vegetables [Table 2.21]*
 - Sub-group of other horticultural businesses with more than 50% of output derived from outdoor vegetable production
 - Average cropping area of this group continues to fall, averaging 10.93ha in 2019/20, and a reduction in glasshouse crops (9% of crop output)
 - An average of 76% of crop output was derived from vegetable production on these farms
 - Farm Business Income (FBI) per hectare fell by 26%, as increases in both variable and fixed costs outstripped the increase in total gross output which grew by 12.5% per hectare. However, at £1,806/ha, the average FBI per hectare of these more specialised farms is 79% greater than the average FBI for the 'other horticulture group'

2.10 Balance Sheet Information [Tables 2.22 and 2.23]

- The assets, liabilities and net worth for the horticulture sample are reported in table 2.22
- The percentage equity in the business was unchanged during the year for all horticultural business types, at 81.1%
- The value of the balance sheet total assets rose by 3.2% to an average of £990,052 for all horticulture businesses in 2019/20, while the year-on-year change for total external liabilities was up similarly, by 3.3%, to £186,877 for the period
- Table 2.23 reports on the net worth and percentage equity for the Defra main farm type classifications used in England; the average net worth for all farm types is approximately £1,866,170 per business, representing 88.2% equity (proportion of assets over liabilities)
- Those businesses that are predominantly land based have the highest net worth, while those with intensive livestock systems and less land have a lower net worth and percentage equity
- Consequently, lowland cattle & sheep farms and cereal farms have the highest percentage equity, at 92.4% and 92.1% respectively; while pig and poultry farms have the lowest percentage equity at 76.5% and 62.5% respectively, with horticulture in mid-range at 81.1%

Table 2.3 All horticultural businesses

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19	2019/20	2018/19	2019/20	2018/19	2019/20
Number of businesses	172	151	172	151	172	151
Productive cropping area (ha)	15.11	16.10	15.11	16.10		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	397,014	489,939	26,278	30,427	100.0	100.0
Variable costs						
Seed & young plants	51,388	72,855	3,401	4,524	12.9	14.9
Fertilisers & composts	12,372	14,367	819	892	3.1	2.9
Crop protection	8,311	11,507	550	715	2.1	2.3
Market charges	21,597	33,932	1,429	2,107	5.4	6.9
Packing materials	17,346	26,130	1,148	1,623	4.4	5.3
Horticultural sundries	12,839	17,220	850	1,069	3.2	3.5
Glasshouse fuel	4,143	4,007	274	249	1.0	0.8
Other variable costs	313	436	21	27	0.1	0.1
Total variable costs	128,310	180,453	8,493	11,207	32.3	36.8
Total gross margin	268,704	309,486	17,785	19,220	67.7	63.2
Fixed costs						
Labour:						
Regular paid	81,990	91,100	5,427	5,658	20.7	18.6
Regular unpaid	31,318	33,149	2,073	2,059	7.9	6.8
Casual labour	39,904	62,294	2,641	3,869	10.1	12.7
Power & machinery costs:						
Contract & hire	7,947	10,176	526	632	2.0	2.1
Fuel & electricity	13,088	15,088	866	937	3.3	3.1
Repairs	9,084	10,764	601	668	2.3	2.2
Machinery depreciation	11,992	14,016	794	870	3.0	2.9
Glasshouse depreciation	2,345	2,941	155	183	0.6	0.6
Rent (incl. imputed)	15,512	17,024	1,027	1,057	3.9	3.5
Other costs:						
Occupier's repairs	6,083	8,059	403	500	1.5	1.6
Permanent crop depreciation	1,143	2,870	76	178	0.3	0.6
Water	2,018	2,241	134	139	0.5	0.5
Sundries	18,654	21,277	1,235	1,321	4.7	4.3
Total fixed costs	241,079	290,999	15,957	18,072	60.7	59.4
Management & investment income	27,626	18,487	1,828	1,148	7.0	3.8
Minus: management salaries	455	416	30	26	0.1	0.1
Plus: farmer & spouse labour	24,690	25,979	1,634	1,613	6.2	5.3
Net farm income	51,861	44,050	3,433	2,736	13.1	9.0
Farm business income	52,075	42,392	3,447	2,633	13.1	8.7

Crop output per cent of total crop output (%)

	Average 2018/19	Average 2019/20
Glasshouse crops		
Flowers & nursery stock	18.5	17.8
Tomatoes	1.5	1.2
Lettuce	0.1	0.1
Soft fruit	3.1	2.5
Other glasshouse crops	3.9	3.6
Outdoor crops		
Flowers and nursery stock	28.5	30.7
Vegetables	9.4	5.3
Other outdoor crops	9.5	6.0
Top fruit		
Dessert apples and pears	4.7	8.0
Culinary apples	0.5	0.4
Cider apples	0.6	0.6
Plums	0.5	0.6
Other top fruit	0.6	1.0
Soft fruit		
Strawberries	12.6	10.8
Raspberries	3.3	7.7
Blackcurrants	0.1	0.1
Other soft fruit	2.7	3.8
Total	100.0	100.0

Distribution of tenant's type capital (%)

	Average 2018/19	Average 2019/20
Crops and tillages	20	19
Stores	6	7
Glasshouses	7	7
Equipment	25	24
Livestock	0	0
Other	42	43
Total	100	100
Tenant's capital (£)	558,811	679,073

Table 2.4 All specialist glass businesses

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19	2019/20	2018/19	2019/20	2018/19	2019/20
Number of businesses	49	42	49	42	49	42
Productive cropping area (ha)	3.21	4.16	3.21	4.16		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	634,175	780,197	197,842	187,717	100.0	100.0
Variable costs						
Seed & young plants	118,209	133,130	36,877	32,031	18.6	17.1
Fertilisers & composts	21,294	26,663	6,643	6,415	3.4	3.4
Crop protection	4,744	6,532	1,480	1,572	0.7	0.8
Market charges	18,109	26,591	5,650	6,398	2.9	3.4
Packing materials	18,627	26,465	5,811	6,368	2.9	3.4
Horticultural sundries	18,186	24,914	5,673	5,994	2.9	3.2
Glasshouse fuel	31,980	33,730	9,977	8,115	5.0	4.3
Other variable costs	0	0	0	0	0.0	0.0
Total variable costs	231,150	278,025	72,111	66,893	36.4	35.6
Total gross margin	403,025	502,173	125,731	120,824	63.6	64.4
Fixed costs						
Labour:						
Regular paid	154,925	192,167	48,332	46,236	24.4	24.6
Regular unpaid	37,651	37,957	11,746	9,133	5.9	4.9
Casual labour	31,322	41,181	9,772	9,908	4.9	5.3
Power & machinery costs:						
Contract & hire	6,193	8,579	1,932	2,064	1.0	1.1
Fuel & electricity	23,706	24,340	7,395	5,856	3.7	3.1
Repairs	13,474	13,364	4,203	3,215	2.1	1.7
Machinery depreciation	16,267	20,159	5,075	4,850	2.6	2.6
Glasshouse depreciation	14,712	20,311	4,590	4,887	2.3	2.6
Rent (incl. imputed)	15,130	19,179	4,720	4,614	2.4	2.5
Other costs:						
Occupier's repairs	12,434	14,519	3,879	3,493	2.0	1.9
Permanent crop depreciation	0	0	0	0	0.0	0.0
Water	2,836	2,930	885	705	0.4	0.4
Sundries	28,472	31,992	8,882	7,697	4.5	4.1
Total fixed costs	357,123	426,677	111,411	102,659	56.3	54.7
Management & investment income	45,903	75,495	14,320	18,164	7.2	9.7
Minus: management salaries	784	1,028	245	247	0.1	0.1
Plus: farmer & spouse labour	32,159	31,611	10,033	7,606	5.1	4.1
Net farm income	77,278	106,078	24,108	25,523	12.2	13.6
Farm business income	67,525	91,219	21,066	21,947	10.6	11.7

Premium businesses	Per	Per £100	Crop output per cent of total crop output (%)			
	hectare	of gross	Average	Average	Premium	
	2019/20^	output	2018/19	2019/20	2019/20^	
		2019/20^				
Number of businesses	12	12				
Productive cropping area (ha)	5.69					
	£ per hectare	average %				
Gross output	252,202	100.0				
Variable costs						
Seed & young plants	30,713	12.2	Glasshouse crops			
Fertilisers & composts	5,243	2.1	Flowers & nursery stock	52.8	53.8	
Crop protection	2,466	1.0	Tomatoes	10.3	10.2	
Market charges	7,623	3.0	Lettuce	0.4	0.0	
Packing materials	7,538	3.0	Soft fruit	10.4	15.4	
Horticultural sundries	6,518	2.6	Other glasshouse crops	15.0	16.5	
Glasshouse fuel	12,244	4.9	Outdoor crops			
Other variable costs	0	0.0	Flowers & nursery stock	8.9	0.8	
			Vegetables	0.1	0.0	
			Fruit	1.4	3.2	
			Other outdoor crops	0.9	0.0	
Total variable costs	72,344	28.7	Total	100.0	100.0	
Total gross margin	179,858	71.3				
Fixed costs			Distribution of tenant's type capital (%)			
Labour:			Average	Average	Premium	
Regular paid	55,254	21.9	2018/19	2019/20	2019/20^	
Regular unpaid	7,264	2.9				
Casual labour	17,616	7.0	Crops & tillages	6	4	2
Power & machinery costs:			Stores	10	9	7
Contract & hire	1,314	0.5	Glasshouses	30	29	23
Fuel & electricity	6,115	2.4	Equipment	22	20	19
Repairs	4,159	1.6	Livestock	0	0	0
Machinery depreciation	6,889	2.7	Other	31	38	49
Glasshouse depreciation	5,503	2.2	Total	100	100	100
Rent (incl. imputed)	4,531	1.8	Tenant's capital (£)	827,016	1,132,707	2,125,462
Other costs:						
Occupier's repairs	5,361	2.1				
Permanent crop depreciation	0	0.0				
Water	955	0.4				
Sundries	7,704	3.1				
Total fixed costs	122,665	48.6				
Management & investment income	57,192	22.7				
Minus: management salaries	534	0.2				
Plus: farmer & spouse labour	5,860	2.3				
Net farm income	62,518	24.8				
Farm business income	57,162	22.7				

^ Data is derived from a modest sample size and thus there is a lower degree of confidence in the figures

Table 2.5 Specialist glass businesses, mainly edible crops

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19	2019/20	2018/19	2019/20	2018/19	2019/20
Number of businesses	22	18	22	18	22	18
Productive cropping area (ha)	4.01	4.91	4.01	4.91		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	526,079	610,479	131,302	124,289	100.0	100.0
Variable costs						
Seed & young plants	44,230	59,733	11,039	12,161	8.4	9.8
Fertilisers & composts	19,146	23,786	4,779	4,843	3.6	3.9
Crop protection	6,033	6,817	1,506	1,388	1.1	1.1
Market charges	10,183	10,832	2,542	2,205	1.9	1.8
Packing materials	9,886	11,613	2,467	2,364	1.9	1.9
Horticultural sundries	24,166	26,112	6,032	5,316	4.6	4.3
Glasshouse fuel	44,547	42,027	11,118	8,556	8.5	6.9
Other variable costs	0	0	0	0	0.0	0.0
Total variable costs	158,192	180,920	39,482	36,834	30.1	29.6
Total gross margin	367,888	429,559	91,820	87,455	69.9	70.4
Fixed costs						
Labour:						
Regular paid	126,196	141,990	31,497	28,908	24.0	23.3
Regular unpaid	33,100	34,386	8,261	7,001	6.3	5.6
Casual labour	31,576	28,701	7,881	5,843	6.0	4.7
Power & machinery costs:						
Contract & hire	2,222	2,991	555	609	0.4	0.5
Fuel & electricity	24,160	22,604	6,030	4,602	4.6	3.7
Repairs	15,743	11,421	3,929	2,325	3.0	1.9
Machinery depreciation	15,551	16,634	3,881	3,387	3.0	2.7
Glasshouse depreciation	12,179	17,856	3,040	3,635	2.3	2.9
Rent (incl. imputed)	15,648	17,229	3,905	3,508	3.0	2.8
Other costs:						
Occupier's repairs	9,683	13,363	2,417	2,721	1.8	2.2
Permanent crop depreciation	0	0	0	0	0.0	0.0
Water	3,619	3,570	903	727	0.7	0.6
Sundries	17,520	19,319	4,373	3,933	3.3	3.2
Total fixed costs	307,196	330,066	76,672	67,199	58.4	54.1
Management & investment income	60,691	99,493	15,148	20,256	11.5	16.3
Minus: management salaries	701	879	175	179	0.1	0.1
Plus: farmer & spouse labour	29,339	30,486	7,323	6,207	5.6	5.0
Net farm income	89,329	129,100	22,295	26,284	17.0	21.1
Farm business income	76,492	107,639	19,091	21,915	14.5	17.6

Table 2.6 Specialist glass businesses, mainly ornamental crops

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19	2019/20	2018/19	2019/20	2018/19	2019/20
Number of businesses	27	24	27	24	27	24
Productive cropping area (ha)	2.49	3.45	2.49	3.45		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	731,075	937,861	293,928	271,499	100.0	100.0
Variable costs						
Seed & young plants	184,525	201,314	74,188	58,278	25.2	21.5
Fertilisers & composts	23,219	29,336	9,335	8,492	3.2	3.1
Crop protection	3,589	6,267	1,443	1,814	0.5	0.7
Market charges	25,214	41,231	10,137	11,936	3.4	4.4
Packing materials	26,464	40,262	10,640	11,655	3.6	4.3
Horticultural sundries	12,825	23,801	5,156	6,890	1.8	2.5
Glasshouse fuel	20,716	26,022	8,329	7,533	2.8	2.8
Other variable costs	0	0	0	0	0.0	0.0
Total variable costs	296,551	368,233	119,228	106,599	40.6	39.3
Total gross margin	434,523	569,628	174,699	164,900	59.4	60.7
Fixed costs						
Labour:						
Regular paid	180,678	238,780	72,641	69,124	24.7	25.5
Regular unpaid	41,731	41,274	16,778	11,948	5.7	4.4
Casual labour	31,095	52,773	12,502	15,277	4.3	5.6
Power & machinery costs:						
Contract & hire	9,754	13,770	3,921	3,986	1.3	1.5
Fuel & electricity	23,298	25,952	9,367	7,513	3.2	2.8
Repairs	11,439	15,170	4,599	4,391	1.6	1.6
Machinery depreciation	16,910	23,434	6,798	6,784	2.3	2.5
Glasshouse depreciation	16,983	22,591	6,828	6,540	2.3	2.4
Rent (incl. imputed)	14,666	20,990	5,896	6,076	2.0	2.2
Other costs:						
Occupier's repairs	14,900	15,592	5,990	4,514	2.0	1.7
Permanent crop depreciation	0	0	0	0	0.0	0.0
Water	2,135	2,336	858	676	0.3	0.2
Sundries	38,289	43,765	15,394	12,669	5.2	4.7
Total fixed costs	401,878	516,427	161,574	149,499	55.0	55.1
Management & investment income	32,645	53,202	13,125	15,401	4.5	5.7
Minus: management salaries	858	1,167	345	338	0.1	0.1
Plus: farmer & spouse labour	34,688	32,656	13,946	9,453	4.7	3.5
Net farm income	66,475	84,691	26,726	24,517	9.1	9.0
Farm business income	59,487	75,965	23,916	21,991	8.1	8.1

Table 2.7 Specialist glass businesses (50% or more of crop output from glasshouse production)

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19	2019/20	2018/19	2019/20	2018/19	2019/20
Number of businesses	35	30	35	30	35	30
Productive cropping area (ha)	0.92	1.52	0.92	1.52		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	390,250	691,823	423,737	455,678	100.0	100.0
Variable costs						
Seed & young plants	56,767	97,674	61,639	64,334	14.5	14.1
Fertilisers & composts	12,903	25,676	14,010	16,912	3.3	3.7
Crop protection	2,490	5,285	2,703	3,481	0.6	0.8
Market charges	14,092	32,526	15,301	21,424	3.6	4.7
Packing materials	15,683	26,295	17,029	17,320	4.0	3.8
Horticultural sundries	12,250	15,592	13,301	10,270	3.1	2.3
Glasshouse fuel	34,545	38,274	37,509	25,210	8.9	5.5
Other variable costs	0	0	0	0	0.0	0.0
Total variable costs	148,731	241,323	161,493	158,950	38.1	34.9
Total gross margin	241,519	450,501	262,244	296,728	61.9	65.1
Fixed costs						
Labour:						
Regular paid	92,180	184,034	100,090	121,216	23.6	26.6
Regular unpaid	38,519	39,062	41,824	25,729	9.9	5.6
Casual labour	11,503	21,182	12,490	13,952	2.9	3.1
Power & machinery costs:						
Contract & hire	1,810	9,056	1,965	5,965	0.5	1.3
Fuel & electricity	17,496	20,178	18,997	13,290	4.5	2.9
Repairs	10,675	13,305	11,591	8,763	2.7	1.9
Machinery depreciation	10,340	17,447	11,227	11,492	2.6	2.5
Glasshouse depreciation	14,911	25,136	16,190	16,556	3.8	3.6
Rent (incl. imputed)	8,087	13,376	8,781	8,810	2.1	1.9
Other costs:						
Occupier's repairs	9,488	12,253	10,302	8,071	2.4	1.8
Permanent crop depreciation	0	0	0	0	0.0	0.0
Water	2,124	2,463	2,307	1,623	0.5	0.4
Sundries	15,920	31,068	17,286	20,464	4.1	4.5
Total fixed costs	233,052	388,562	253,050	255,931	59.7	56.2
Management & investment income	8,467	61,939	9,193	40,797	2.2	9.0
Minus: management salaries	539	727	585	479	0.1	0.1
Plus: farmer & spouse labour	33,616	32,740	36,501	21,564	8.6	4.7
Net farm income	41,544	93,952	45,109	61,882	10.6	13.6
Farm business income	33,796	76,240	36,696	50,217	8.7	11.0

Table 2.8 Specialist glass businesses (50% or more of crop output from glasshouse production) - mainly edible crops*

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19	2019/20[^]	2018/19	2019/20[^]	2018/19	2019/20[^]
Number of businesses	15	12	15	12	15	12
Productive cropping area (ha)	1.08	1.13	1.08	1.13		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	321,163	407,030	298,379	360,159	100.0	100.0
Variable costs						
Seed & young plants	18,975	27,915	17,629	24,700	5.9	6.9
Fertilisers & composts	9,628	13,828	8,945	12,236	3.0	3.4
Crop protection	2,014	3,580	1,871	3,168	0.6	0.9
Market charges	10,723	14,971	9,963	13,247	3.3	3.7
Packing materials	4,529	6,892	4,208	6,099	1.4	1.7
Horticultural sundries	10,177	10,275	9,455	9,092	3.2	2.5
Glasshouse fuel	51,075	51,950	47,452	45,968	15.9	12.8
Other variable costs	0	0	0	0	0.0	0.0
Total variable costs	107,120	129,412	99,521	114,510	33.4	31.8
Total gross margin	214,043	277,618	198,858	245,649	66.6	68.2
Fixed costs						
Labour:						
Regular paid	62,172	67,894	57,761	60,075	19.4	16.7
Regular unpaid	32,966	34,549	30,627	30,570	10.3	8.5
Casual labour	15,823	19,651	14,700	17,388	4.9	4.8
Power & machinery costs:						
Contract & hire	1,829	2,838	1,700	2,511	0.6	0.7
Fuel & electricity	21,215	10,829	19,710	9,582	6.6	2.7
Repairs	15,767	12,704	14,649	11,241	4.9	3.1
Machinery depreciation	10,283	11,781	9,553	10,425	3.2	2.9
Glasshouse depreciation	14,950	24,439	13,889	21,625	4.7	6.0
Rent (incl. imputed)	5,588	7,260	5,192	6,424	1.7	1.8
Other costs:						
Occupier's repairs	5,105	8,200	4,743	7,255	1.6	2.0
Permanent crop depreciation	0	0	0	0	0.0	0.0
Water	2,207	2,338	2,051	2,069	0.7	0.6
Sundries	10,559	13,823	9,810	12,231	3.3	3.4
Total fixed costs	198,465	216,305	184,385	191,397	61.8	53.1
Management & investment income	15,578	61,313	14,473	54,252	4.9	15.1
Minus: management salaries	156	235	145	208	0.0	0.1
Plus: farmer & spouse labour	29,264	30,532	27,187	27,016	9.1	7.5
Net farm income	44,685	91,610	41,515	81,061	13.9	22.5
Farm business income	38,362	73,170	35,641	64,744	11.9	18.0

[^] Data is derived from a modest sample size and thus there is a lower degree of confidence in the figures

Crop output per cent of total crop output (%)

	Average 2018/19	Average 2019/20^
Glasshouse crops		
Flowers & nursery stock	0.0	0.0
Tomatoes	63.7	46.3
Lettuce	2.2	1.4
Soft fruit	19.9	16.5
Other glasshouse crops	12.8	35.2
Outdoor crops		
Flowers & nursery stock	0.0	0.0
Vegetables	0.6	0.7
Fruit	0.0	0.0
Other outdoor crops	0.7	0.0
Total	100.0	100.0

Distribution of tenant's type capital (%)

	Average 2018/19	Average 2019/20^
Crops & tillages	1	1
Stores	3	2
Glasshouses	44	38
Equipment	22	16
Livestock	0	0
Other	31	44
Total	100	100
Tenant's capital (£)	576,523	991,462

** no premium figures, sample too small*

Table 2.9 Specialist glass businesses (50% or more of crop output from glasshouse production) - mainly ornamental crops

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19	2019/20	2018/19	2019/20	2018/19	2019/20
Number of businesses	20	18	20	18	20	18
Productive cropping area (ha)	0.77	1.87	0.77	1.87		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	457,448	952,696	594,220	508,452	100.0	100.0
Variable costs						
Seed & young plants	93,527	161,574	121,491	86,232	20.4	17.0
Fertilisers & composts	16,089	36,528	20,899	19,495	3.5	3.8
Crop protection	2,952	6,847	3,835	3,654	0.6	0.7
Market charges	17,369	48,607	22,562	25,942	3.8	5.1
Packing materials	26,532	44,068	34,465	23,519	5.8	4.6
Horticultural sundries	14,267	20,463	18,533	10,921	3.1	2.1
Glasshouse fuel	18,467	25,746	23,988	13,741	4.0	2.7
Other variable costs	0	0	0	0	0.0	0.0
Total variable costs	189,204	343,833	245,773	183,503	41.4	36.1
Total gross margin	268,245	608,862	348,446	324,949	58.6	63.9
Fixed costs						
Labour:						
Regular paid	121,369	290,419	157,657	154,996	26.5	30.5
Regular unpaid	43,920	43,196	57,051	23,054	9.6	4.5
Casual labour	7,302	22,585	9,485	12,053	1.6	2.4
Power & machinery costs:						
Contract & hire	1,790	14,752	2,325	7,873	0.4	1.5
Fuel & electricity	13,877	28,741	18,026	15,339	3.0	3.0
Repairs	5,722	13,856	7,433	7,395	1.3	1.5
Machinery depreciation	10,395	22,637	13,503	12,081	2.3	2.4
Glasshouse depreciation	14,873	25,775	19,320	13,756	3.3	2.7
Rent (incl. imputed)	10,517	18,979	13,661	10,129	2.3	2.0
Other costs:						
Occupier's repairs	13,751	15,966	17,862	8,521	3.0	1.7
Permanent crop depreciation	0	0	0	0	0.0	0.0
Water	2,044	2,578	2,655	1,376	0.4	0.3
Sundries	21,135	46,866	27,454	25,012	4.6	4.9
Total fixed costs	266,695	546,349	346,433	291,586	58.3	57.3
Management & investment income	1,550	62,513	2,013	33,363	0.3	6.6
Minus: management salaries	911	1,178	1,184	629	0.2	0.1
Plus: farmer & spouse labour	37,850	34,761	49,166	18,552	8.3	3.6
Net farm income	38,488	96,096	49,996	51,287	8.4	10.1
Farm business income	29,354	79,053	38,131	42,190	6.4	8.3

Premium businesses	Per hectare 2019/20^	Per £100 of gross output 2019/20^	Crop output per cent of total crop output (%)		
			Average 2018/19	Average 2019/20	Premium 2019/20^
Number of businesses	5	5			
Productive cropping area (ha)	1.27				
	£ per hectare average %				
Gross output	877,736	100.0			
Variable costs					
Seed & young plants	123,263	14.0	Glasshouse crops		
Fertilisers & composts	25,222	2.9	Flowers & nursery stock	96.8	83.7
Crop protection	9,626	1.1	Tomatoes	0.0	0.0
Market charges	48,939	5.6	Lettuce	0.0	0.0
Packing materials	18,633	2.1	Soft fruit	0.0	0.0
Horticultural sundries	21,676	2.5	Other glasshouse crops	0.0	1.2
Glasshouse fuel	38,898	4.4	Outdoor crops		
Other variable costs	0	0.0	Flowers & nursery stock	3.1	15.1
			Vegetables	0.0	0.0
			Fruit	0.0	0.0
			Other outdoor crops	0.0	0.0
Total variable costs	286,256	32.6	Total	100.0	100.0
					100.0
Total gross margin	591,481	67.4	Distribution of tenant's type capital (%)		
				Average 2018/19	Average 2019/20
					Premium 2019/20^
Fixed costs			Crops & tillages	5	5
Labour:			Stores	15	13
Regular paid	228,292	26.0	Glasshouses	34	32
Regular unpaid	25,867	2.9	Equipment	16	19
Casual labour	40,694	4.6	Livestock	0	0
Power & machinery costs:			Other	30	31
Contract & hire	858	0.1	Total	100	100
Fuel & electricity	20,423	2.3			100
Repairs	4,580	0.5	Tenant's capital (£)	827,016	1,132,707
Machinery depreciation	25,765	2.9		2,125,462	
Glasshouse depreciation	14,499	1.7			
Rent (incl. imputed)	14,906	1.7			
Other costs:					
Occupier's repairs	12,402	1.4			
Permanent crop depreciation	0	0.0			
Water	3,613	0.4			
Sundries	35,844	4.1			
Total fixed costs	427,744	48.7			
Management & investment income	163,736	18.7			
Minus: management salaries	3,281	0.4			
Plus: farmer & spouse labour	18,985	2.2			
Net farm income	179,441	20.4			
Farm business income	160,726	18.3			

^ Data is derived from a modest sample size and thus there is a lower degree of confidence in the figures

Table 2.10 Specialist glass businesses (90% or more of crop output from glasshouse production)

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19	2019/20	2018/19	2019/20	2018/19	2019/20
Number of businesses	29	24	29	24	29	24
Productive cropping area (ha)	0.81	1.01	0.81	1.01		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	431,691	570,757	534,858	567,093	100.0	100.0
Variable costs						
Seed & young plants	58,872	71,743	72,942	71,282	13.6	12.6
Fertilisers & composts	14,106	19,151	17,477	19,028	3.3	3.4
Crop protection	2,433	4,837	3,015	4,806	0.6	0.8
Market charges	14,482	21,503	17,943	21,365	3.4	3.8
Packing materials	16,082	19,019	19,925	18,896	3.7	3.3
Horticultural sundries	14,423	16,629	17,870	16,522	3.3	2.9
Glasshouse fuel	39,639	42,732	49,112	42,458	9.2	7.5
Other variable costs	0	0	0	0	0.0	0.0
Total variable costs	160,037	195,614	198,283	194,359	37.1	34.3
Total gross margin	271,654	375,143	336,575	372,735	62.9	65.7
Fixed costs						
Labour:						
Regular paid	102,600	130,692	127,120	129,853	23.8	22.9
Regular unpaid	35,004	36,000	43,369	35,769	8.1	6.3
Casual labour	12,857	25,966	15,930	25,799	3.0	4.5
Power & machinery costs:						
Contract & hire	2,182	2,418	2,704	2,403	0.5	0.4
Fuel & electricity	20,310	15,739	25,164	15,638	4.7	2.8
Repairs	12,335	10,077	15,283	10,012	2.9	1.8
Machinery depreciation	10,939	14,485	13,553	14,392	2.5	2.5
Glasshouse depreciation	13,703	20,459	16,978	20,328	3.2	3.6
Rent (incl. imputed)	7,217	10,580	8,941	10,512	1.7	1.9
Other costs:						
Occupier's repairs	10,282	12,558	12,740	12,478	2.4	2.2
Permanent crop depreciation	0	0	0	0	0.0	0.0
Water	2,304	2,415	2,854	2,399	0.5	0.4
Sundries	16,837	24,257	20,861	24,101	3.9	4.2
Total fixed costs	246,571	305,645	305,497	303,683	57.1	53.6
Management & investment income	25,083	69,498	31,078	69,052	5.8	12.2
Minus: management salaries	666	892	825	886	0.2	0.2
Plus: farmer & spouse labour	31,761	32,040	39,351	31,834	7.4	5.6
Net farm income	56,178	100,646	69,604	100,000	13.0	17.6
Farm business income	46,996	83,941	58,227	83,402	10.9	14.7

Premium businesses	Per hectare 2019/20 [^]	Per £100 of gross output 2019/20 [^]	Crop output per cent of total crop output (%)		
			Average 2018/19	Average 2019/20	Premium 2019/20 [^]
Number of businesses	5	5			
Productive cropping area (ha)	1.31				
	£ per hectare average %				
Gross output	844,188	100.0			
Variable costs					
Seed & young plants	84,867	10.1	Glasshouse crops		
Fertilisers & composts	23,433	2.8	Flowers & nursery stock	61.0	59.9
Crop protection	4,785	0.6	Tomatoes	25.8	18.4
Market charges	39,819	4.7	Lettuce	0.9	0.5
Packing materials	15,571	1.8	Soft fruit	8.1	6.6
Horticultural sundries	19,865	2.4	Other glasshouse crops	4.1	14.5
Glasshouse fuel	73,350	8.7	Outdoor crops		
Other variable costs	0	0.0	Flowers & nursery stock	0.0	0.0
			Vegetables	0.0	0.0
			Fruit	0.0	0.0
			Other outdoor crops	0.0	0.0
Total variable costs	261,689	31.0	Total	100.0	100.0
Total gross margin	582,499	69.0			100.0
			Distribution of tenant's type capital (%)		
				Average 2018/19	Average 2019/20
					Premium 2019/20 [^]
Fixed costs					
Labour:			Crops & tillages	2	1
Regular paid	186,319	22.1	Stores	10	8
Regular unpaid	28,830	3.4	Glasshouses	36	33
Casual labour	7,314	0.9	Equipment	19	17
Power & machinery costs:			Livestock	0	0
Contract & hire	2,631	0.3	Other	34	41
Fuel & electricity	21,043	2.5	Total	100	100
Repairs	16,511	2.0			100
Machinery depreciation	15,890	1.9	Tenant's capital (£)	653,701	1,004,411
Glasshouse depreciation	29,301	3.5		2,155,804	
Rent (incl. imputed)	6,884	0.8			
Other costs:					
Occupier's repairs	18,958	2.2			
Permanent crop depreciation	0	0.0			
Water	1,184	0.1			
Sundries	29,952	3.5			
Total fixed costs	364,817	43.2			
Management & investment income	217,682	25.8			
Minus: management salaries	2,315	0.3			
Plus: farmer & spouse labour	27,110	3.2			
Net farm income	242,476	28.7			
Farm business income	207,067	24.5			

[^] Data is derived from a modest sample size and thus there is a lower degree of confidence in the figures

Table 2.11 Specialist glass businesses (90% or more of crop output from glasshouse production) - mainly edible crops*

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19 [^]	2019/20 [^]	2018/19 [^]	2019/20 [^]	2018/19 [^]	2019/20 [^]
Number of businesses	12	10	12	10	12	10
Productive cropping area (ha)	1.00	1.15	1.00	1.15		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	444,402	518,372	445,472	450,695	100.0	100.0
Variable costs						
Seed & young plants	23,779	31,993	23,837	27,816	5.4	6.2
Fertilisers & composts	13,571	17,914	13,604	15,575	3.1	3.5
Crop protection	2,794	4,626	2,801	4,022	0.6	0.9
Market charges	15,370	19,558	15,407	17,004	3.5	3.8
Packing materials	6,364	8,946	6,379	7,778	1.4	1.7
Horticultural sundries	13,594	12,795	13,627	11,125	3.1	2.5
Glasshouse fuel	73,200	67,868	73,376	59,007	16.5	13.1
Other variable costs	0	0	0	0	0.0	0.0
Total variable costs	148,672	163,699	149,030	142,327	33.5	31.6
Total gross margin	295,730	354,674	296,442	308,368	66.5	68.4
Fixed costs						
Labour:						
Regular paid	89,113	88,696	89,327	77,116	20.1	17.1
Regular unpaid	25,268	30,622	25,329	26,624	5.7	5.9
Casual labour	19,515	25,672	19,562	22,321	4.4	5.0
Power & machinery costs:						
Contract & hire	2,529	3,708	2,535	3,224	0.6	0.7
Fuel & electricity	29,382	13,509	29,452	11,745	6.6	2.6
Repairs	21,988	16,365	22,041	14,228	4.9	3.2
Machinery depreciation	14,163	15,169	14,197	13,188	3.2	2.9
Glasshouse depreciation	21,148	31,844	21,199	27,686	4.8	6.1
Rent (incl. imputed)	7,452	9,176	7,470	7,978	1.7	1.8
Other costs:						
Occupier's repairs	7,005	10,664	7,022	9,272	1.6	2.1
Permanent crop depreciation	0	0	0	0	0.0	0.0
Water	2,875	2,808	2,882	2,441	0.6	0.5
Sundries	14,023	16,723	14,057	14,540	3.2	3.2
Total fixed costs	254,460	264,957	255,073	230,365	57.3	51.1
Management & investment income	41,270	89,717	41,369	78,004	9.3	17.3
Minus: management salaries	224	307	225	267	0.1	0.1
Plus: farmer & spouse labour	22,553	27,716	22,608	24,097	5.1	5.3
Net farm income	63,599	117,125	63,752	101,834	14.3	22.6
Farm business income	51,751	90,535	51,875	78,715	11.6	17.5

[^] Data is derived from a modest sample size and thus there is a lower degree of confidence in the figures

Crop output per cent of total crop output (%)

	Average 2018/19^	Average 2019/20^
Glasshouse crops		
Flowers & nursery stock	0.0	0.0
Tomatoes	66.3	47.4
Lettuce	2.3	1.4
Soft fruit	20.7	16.9
Other glasshouse crops	10.7	34.2
Outdoor crops		
Flowers & nursery stock	0.0	0.0
Vegetables	0.0	0.0
Fruit	0.0	0.0
Other outdoor crops	0.0	0.0
Total	100.0	100.0

Distribution of tenant's type capital (%)

	Average 2018/19^	Average 2019/20^
Crops & tillages	0	0
Stores	3	2
Glasshouses	44	38
Equipment	22	16
Livestock	0	0
Other	31	44
Total	100	100
Tenant's capital (£)	804,316	1,279,988

** no premium figures, sample too small*

Table 2.12 Specialist glass businesses (90% or more of crop output from glasshouse production) - mainly ornamental crops*

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19	2019/20[^]	2018/19	2019/20[^]	2018/19	2019/20[^]
Number of businesses	17	14	17	14	17	14
Productive cropping area (ha)	0.67	0.89	0.67	0.89		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	422,296	613,390	633,775	689,581	100.0	100.0
Variable costs						
Seed & young plants	84,811	104,093	127,283	117,023	20.1	17.0
Fertilisers & composts	14,501	20,158	21,762	22,662	3.4	3.3
Crop protection	2,167	5,009	3,252	5,632	0.5	0.8
Market charges	13,825	23,086	20,748	25,954	3.3	3.8
Packing materials	23,265	27,216	34,916	30,597	5.5	4.4
Horticultural sundries	15,035	19,749	22,565	22,203	3.6	3.2
Glasshouse fuel	14,833	22,276	22,261	25,043	3.5	3.6
Other variable costs	0	0	0	0	0.0	0.0
Total variable costs	168,437	221,588	252,787	249,113	39.9	36.1
Total gross margin	253,859	391,802	380,987	440,469	60.1	63.9
Fixed costs						
Labour:						
Regular paid	112,569	164,870	168,942	185,349	26.7	26.9
Regular unpaid	42,200	40,376	63,333	45,391	10.0	6.6
Casual labour	7,937	26,205	11,911	29,460	1.9	4.3
Power & machinery costs:						
Contract & hire	1,926	1,369	2,891	1,539	0.5	0.2
Fuel & electricity	13,605	17,554	20,419	19,734	3.2	2.9
Repairs	5,201	4,960	7,805	5,576	1.2	0.8
Machinery depreciation	8,555	13,928	12,840	15,658	2.0	2.3
Glasshouse depreciation	8,200	11,193	12,307	12,584	1.9	1.8
Rent (incl. imputed)	7,043	11,723	10,570	13,179	1.7	1.9
Other costs:						
Occupier's repairs	12,705	14,100	19,068	15,852	3.0	2.3
Permanent crop depreciation	0	0	0	0	0.0	0.0
Water	1,881	2,095	2,823	2,355	0.4	0.3
Sundries	18,917	30,387	28,390	34,162	4.5	5.0
Total fixed costs	240,739	338,759	361,298	380,838	57.0	55.2
Management & investment income	13,119	53,042	19,689	59,631	3.1	8.6
Minus: management salaries	993	1,367	1,490	1,537	0.2	0.2
Plus: farmer & spouse labour	38,566	35,559	57,880	39,976	9.1	5.8
Net farm income	50,693	87,235	76,079	98,070	12.0	14.2
Farm business income	43,482	78,575	65,257	88,335	10.3	12.8

[^] Data is derived from a modest sample size and thus there is a lower degree of confidence in the figures

Crop output per cent of total crop output (%)

	Average 2018/19	Average 2019/20^
Glasshouse crops		
Flowers & nursery stock	100.0	97.9
Tomatoes	0.0	0.0
Lettuce	0.0	0.0
Soft fruit	0.0	0.0
Other glasshouse crops	0.0	2.1
Outdoor crops		
Flowers & nursery stock	0.0	0.0
Vegetables	0.0	0.0
Fruit	0.0	0.0
Other outdoor crops	0.0	0.0
Total	100.0	100.0

Distribution of tenant's type capital (%)

	Average 2018/19	Average 2019/20^
Crops & tillages	5	3
Stores	17	16
Glasshouses	27	26
Equipment	16	19
Livestock	0	0
Other	36	37
Total	100	100
Tenant's capital (£)	542,376	780,136

** no premium figures, sample too small*

Table 2.13 All specialist fruit businesses

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19	2019/20	2018/19	2019/20	2018/19	2019/20
Number of businesses	49	40	49	40	49	40
Productive cropping area (ha)	12.94	19.21	12.94	19.21		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	238,256	436,270	18,413	22,707	100.0	100.0
Variable costs						
Seed & young plants	5,615	14,078	434	733	2.4	3.2
Fertilisers & composts	2,193	5,360	169	279	0.9	1.2
Crop protection	10,700	19,616	827	1,021	4.5	4.5
Market charges	28,863	63,736	2,231	3,317	12.1	14.6
Packing materials	20,603	42,532	1,592	2,214	8.6	9.7
Horticultural sundries	9,066	16,145	701	840	3.8	3.7
Glasshouse fuel	0	0	0	0	0.0	0.0
Other variable costs	880	1,522	68	79	0.4	0.3
Total variable costs	77,920	162,988	6,022	8,483	32.7	37.4
Total gross margin	160,336	273,282	12,391	14,224	67.3	62.6
Fixed costs						
Labour:						
Regular paid	21,234	35,861	1,641	1,867	8.9	8.2
Regular unpaid	19,063	24,033	1,473	1,251	8.0	5.5
Casual labour	52,672	112,667	4,071	5,864	22.1	25.8
Power & machinery costs:						
Contract & hire	6,564	11,886	507	619	2.8	2.7
Fuel & electricity	8,944	15,401	691	802	3.8	3.5
Repairs	5,640	10,406	436	542	2.4	2.4
Machinery depreciation	7,908	11,885	611	619	3.3	2.7
Glasshouse depreciation	96	156	7	8	0.0	0.0
Rent (incl. imputed)	11,587	16,456	895	857	4.9	3.8
Other costs:						
Occupier's repairs	5,719	9,696	442	505	2.4	2.2
Permanent crop depreciation	3,261	8,334	252	434	1.4	1.9
Water	1,449	1,826	112	95	0.6	0.4
Sundries	11,124	17,118	860	891	4.7	3.9
Total fixed costs	155,262	275,726	11,999	14,351	65.2	63.2
Management & investment income	5,074	-2,443	392	-127	2.1	-0.6
Minus: management salaries	195	494	15	26	0.1	0.1
Plus: farmer & spouse labour	17,791	21,529	1,375	1,121	7.5	4.9
Net farm income	22,670	18,592	1,752	968	9.5	4.3
Farm business income	23,727	19,813	1,834	1,031	10.0	4.5

Table 2.14 Specialist fruit businesses, mainly top fruit

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19	2019/20	2018/19	2019/20	2018/19	2019/20
Number of businesses	34	26	34	26	34	26
Productive cropping area (ha)	10.89	16.70	10.89	16.70		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	158,891	276,095	14,591	16,535	100.0	100.0
Variable costs						
Seed & young plants	852	2,240	78	134	0.5	0.8
Fertilisers & composts	1,323	3,530	122	211	0.8	1.3
Crop protection	9,392	17,232	863	1,032	5.9	6.2
Market charges	17,891	39,509	1,643	2,366	11.3	14.3
Packing materials	7,485	20,151	687	1,207	4.7	7.3
Horticultural sundries	6,409	8,131	589	487	4.0	2.9
Glasshouse fuel	0	0	0	0	0.0	0.0
Other variable costs	1,398	2,831	128	170	0.9	1.0
Total variable costs	44,751	93,624	4,110	5,607	28.2	33.9
Total gross margin	114,141	182,470	10,482	10,928	71.8	66.1
Fixed costs						
Labour:						
Regular paid	17,636	24,518	1,620	1,468	11.1	8.9
Regular unpaid	18,072	21,734	1,660	1,302	11.4	7.9
Casual labour	21,646	41,616	1,988	2,492	13.6	15.1
Power & machinery costs:						
Contract & hire	8,298	16,755	762	1,003	5.2	6.1
Fuel & electricity	7,456	13,515	685	809	4.7	4.9
Repairs	4,475	9,004	411	539	2.8	3.3
Machinery depreciation	7,493	11,383	688	682	4.7	4.1
Glasshouse depreciation	42	100	4	6	0.0	0.0
Rent (incl. imputed)	11,290	15,794	1,037	946	7.1	5.7
Other costs:						
Occupier's repairs	5,781	7,953	531	476	3.6	2.9
Permanent crop depreciation	3,827	11,042	351	661	2.4	4.0
Water	663	845	61	51	0.4	0.3
Sundries	9,175	14,642	843	877	5.8	5.3
Total fixed costs	115,853	188,901	10,639	11,313	72.9	68.4
Management & investment income	-1,713	-6,430	-157	-385	-1.1	-2.3
Minus: management salaries	112	437	10	26	0.1	0.2
Plus: farmer & spouse labour	16,716	18,628	1,535	1,116	10.5	6.7
Net farm income	14,892	11,761	1,368	704	9.4	4.3
Farm business income	16,648	14,093	1,529	844	10.5	5.1

Premium businesses	Per	Per £100	Crop output per cent of total crop output (%)		
	hectare	of gross	Average	Average	Premium
	2019/20^	output	2018/19	2019/20	2019/20^
		2019/20^			
Number of businesses	8	8			
Productive cropping area (ha)	19.95				
	£ per hectare average %				
Gross output	18,047	100.0			
Variable costs					
Seed & young plants	23	0.1			
Fertilisers & composts	284	1.6			
Crop protection	966	5.4			
Market charges	3,296	18.3			
Packing materials	779	4.3			
Horticultural sundries	314	1.7			
Glasshouse fuel	0	0.0			
Other variable costs	41	0.2			
Total variable costs	5,704	31.6			
Total gross margin	12,343	68.4			
Fixed costs					
Labour:					
Regular paid	2,297	12.7			
Regular unpaid	792	4.4			
Casual labour	2,621	14.5			
Power & machinery costs:					
Contract & hire	119	0.7			
Fuel & electricity	553	3.1			
Repairs	363	2.0			
Machinery depreciation	547	3.0			
Glasshouse depreciation	0	0.0			
Rent (incl. imputed)	851	4.7			
Other costs:					
Occupier's repairs	443	2.5			
Permanent crop depreciation	707	3.9			
Water	29	0.2			
Sundries	1,053	5.8			
Total fixed costs	10,375	57.5			
Management & investment income	1,968	10.9			
Minus: management salaries	79	0.4			
Plus: farmer & spouse labour	625	3.5			
Net farm income	2,515	13.9			
Farm business income	3,098	17.2			
			Distribution of tenant's type capital (%)		
			Average	Average	Premium
			2018/19	2019/20	2019/20^
Top fruit					
Dessert apples			64.9	75.8	70.2
Culinary apples			6.8	1.9	0.5
Cider apples			11.3	6.8	8.9
Plums			7.8	4.8	10.9
Other top fruit			8.3	6.9	9.4
Soft fruit					
Strawberries			0.0	0.0	0.0
Raspberries			0.0	0.0	0.0
Blackcurrants			0.0	0.0	0.0
Other soft fruit			0.3	0.0	0.0
Other crops			0.7	0.7	0.0
Total			100.0	100.0	100.0
			Average	Average	Premium
			2018/19	2019/20	2019/20^
Crops & tillages			8	9	6
Stores			2	3	3
Glasshouses			0	0	0
Equipment			24	21	16
Livestock			2	2	1
Other			64	65	75
Total			100	100	100
Tenant's capital (£)	355,690	685,841	885,402		

^ Data is derived from a modest sample size and thus there is a lower degree of confidence in the figures

Table 2.15 Specialist fruit businesses, mainly top fruit-excluding cider

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19	2019/20	2018/19	2019/20	2018/19	2019/20
Number of businesses	23	20	23	20	23	20
Productive cropping area (ha)	10.08	14.18	10.08	14.18		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	196,018	283,421	19,453	19,993	100.0	100.0
Variable costs						
Seed & young plants	1,223	2,465	121	174	0.6	0.9
Fertilisers & composts	1,367	2,929	136	207	0.7	1.0
Crop protection	11,245	17,482	1,116	1,233	5.7	6.2
Market charges	22,380	43,187	2,221	3,046	11.4	15.2
Packing materials	10,915	22,329	1,083	1,575	5.6	7.9
Horticultural sundries	8,187	8,615	812	608	4.2	3.0
Glasshouse fuel	0	0	0	0	0.0	0.0
Other variable costs	1,077	1,921	107	135	0.5	0.7
Total variable costs	56,394	98,927	5,596	6,978	28.8	34.9
Total gross margin	139,625	184,494	13,856	13,014	71.2	65.1
Fixed costs						
Labour:						
Regular paid	23,322	25,257	2,314	1,782	11.9	8.9
Regular unpaid	20,629	20,374	2,047	1,437	10.5	7.2
Casual labour	30,107	45,274	2,988	3,194	15.4	16.0
Power & machinery costs:						
Contract & hire	8,054	17,281	799	1,219	4.1	6.1
Fuel & electricity	9,842	14,089	977	994	5.0	5.0
Repairs	5,049	8,968	501	633	2.6	3.2
Machinery depreciation	8,985	11,497	892	811	4.6	4.1
Glasshouse depreciation	61	111	6	8	0.0	0.0
Rent (incl. imputed)	12,924	15,549	1,283	1,097	6.6	5.5
Other costs:						
Occupier's repairs	6,443	8,447	639	596	3.3	3.0
Permanent crop depreciation	4,360	11,064	433	780	2.2	3.9
Water	881	835	87	59	0.4	0.3
Sundries	10,814	14,744	1,073	1,040	5.5	5.2
Total fixed costs	141,472	193,492	14,040	13,649	72.2	68.3
Management & investment income	-1,847	-8,998	-183	-635	-0.9	-3.2
Minus: management salaries	143	484	14	34	0.1	0.2
Plus: farmer & spouse labour	19,411	18,225	1,926	1,286	9.9	6.4
Net farm income	17,421	8,743	1,729	617	8.9	3.1
Farm business income	17,672	9,463	1,754	668	9.0	3.3

Table 2.16 Specialist fruit businesses, cider*

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19 [^]	2019/20 [^]	2018/19 [^]	2019/20 [^]	2018/19 [^]	2019/20 [^]
Number of businesses	10	6	10	6	10	6
Productive cropping area (ha)	11.62	40.02	11.62	40.02		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	57,288	208,319	4,929	5,205	100.0	100.0
Variable costs						
Seed & young plants	45	161	4	4	0.1	0.1
Fertilisers & composts	1,147	9,090	99	227	2.0	4.4
Crop protection	4,495	14,924	387	373	7.8	7.2
Market charges	1,724	5,489	148	137	3.0	2.6
Packing materials	0	0	0	0	0.0	0.0
Horticultural sundries	677	3,655	58	91	1.2	1.8
Glasshouse fuel	0	0	0	0	0.0	0.0
Other variable costs	2,154	11,251	185	281	3.8	5.4
Total variable costs	10,242	44,572	881	1,114	17.9	21.4
Total gross margin	47,046	163,747	4,048	4,092	82.1	78.6
Fixed costs						
Labour:						
Regular paid	4,255	17,681	366	442	7.4	8.5
Regular unpaid	12,620	34,312	1,086	857	22.0	16.5
Casual labour	806	7,771	69	194	1.4	3.7
Power & machinery costs:						
Contract & hire	8,753	11,884	753	297	15.3	5.7
Fuel & electricity	1,865	8,211	160	205	3.3	3.9
Repairs	2,945	9,334	253	233	5.1	4.5
Machinery depreciation	3,133	10,326	270	258	5.5	5.0
Glasshouse depreciation	0	0	0	0	0.0	0.0
Rent (incl. imputed)	7,391	18,057	636	451	12.9	8.7
Other costs:						
Occupier's repairs	4,415	3,387	380	85	7.7	1.6
Permanent crop depreciation	2,252	10,843	194	271	3.9	5.2
Water	182	931	16	23	0.3	0.4
Sundries	5,347	13,689	460	342	9.3	6.6
Total fixed costs	53,964	146,426	4,643	3,659	94.2	70.3
Management & investment income	-6,918	17,321	-595	433	-12.1	8.3
Minus: management salaries	24	0	2	0	0.0	0.0
Plus: farmer & spouse labour	10,922	22,362	940	559	19.1	10.7
Net farm income	3,980	39,683	342	992	6.9	19.0
Farm business income	8,727	56,929	751	1,423	15.2	27.3

[^] Data is derived from a modest sample size and thus there is a lower degree of confidence in the figures

Crop output per cent of total crop output (%)

	Average 2018/19^	Average 2019/20^
Top fruit		
Dessert apples	0.0	0.0
Culinary apples	1.7	3.0
Cider apples	97.1	94.9
Plums	0.0	0.0
Other top fruit	0.4	0.1
Soft fruit		
Strawberries	0.0	0.0
Raspberries	0.0	0.0
Blackcurrants	0.0	0.0
Other soft fruit	0.0	0.0
Other crops	0.8	1.9
Total	100.0	100.0

Distribution of tenant's type capital (%)

	Average 2018/19^	Average 2019/20^
Crops & tillages	1	2
Stores	5	7
Glasshouses	0	0
Equipment	25	23
Livestock	7	7
Other	63	60
Total	100	100
Tenant's capital (£)	146,610	618,186

** no premium figures, sample too small*

Table 2.17 All specialist hardy nursery stock businesses

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19	2019/20	2018/19	2019/20	2018/19	2019/20
Number of businesses	28	23	28	23	28	23
Productive cropping area (ha)	2.43	2.61	2.43	2.61		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	482,021	629,726	198,032	241,343	100.0	100.0
Variable costs						
Seed & young plants	98,631	167,515	40,521	64,200	20.5	26.6
Fertilisers & composts	19,439	24,354	7,986	9,334	4.0	3.9
Crop protection	3,936	4,830	1,617	1,851	0.8	0.8
Market charges	24,004	29,182	9,862	11,184	5.0	4.6
Packing materials	15,336	20,050	6,301	7,684	3.2	3.2
Horticultural sundries	13,268	22,950	5,451	8,796	2.8	3.6
Glasshouse fuel	1,752	1,519	720	582	0.4	0.2
Other variable costs	0	0	0	0	0.0	0.0
Total variable costs	176,365	270,399	72,457	103,631	36.6	42.9
Total gross margin	305,656	359,327	125,575	137,712	63.4	57.1
Fixed costs						
Labour:						
Regular paid	106,047	139,645	43,568	53,519	22.0	22.2
Regular unpaid	35,776	39,900	14,698	15,292	7.4	6.3
Casual labour	26,016	35,494	10,688	13,603	5.4	5.6
Power & machinery costs:						
Contract & hire	4,361	6,803	1,792	2,607	0.9	1.1
Fuel & electricity	10,192	11,670	4,187	4,473	2.1	1.9
Repairs	8,247	10,364	3,388	3,972	1.7	1.6
Machinery depreciation	10,764	12,896	4,422	4,943	2.2	2.0
Glasshouse depreciation	1,795	1,866	738	715	0.4	0.3
Rent (incl. imputed)	10,756	11,715	4,419	4,490	2.2	1.9
Other costs:						
Occupier's repairs	6,923	8,795	2,844	3,371	1.4	1.4
Permanent crop depreciation	0	0	0	0	0.0	0.0
Water	2,326	2,864	956	1,098	0.5	0.5
Sundries	25,123	29,889	10,321	11,455	5.2	4.7
Total fixed costs	248,325	311,900	102,021	119,536	51.5	49.5
Management & investment income	57,331	47,426	23,554	18,176	11.9	7.5
Minus: management salaries	165	201	68	77	0.0	0.0
Plus: farmer & spouse labour	28,406	28,947	11,670	11,094	5.9	4.6
Net farm income	85,572	76,172	35,156	29,193	17.8	12.1
Farm business income	82,209	70,776	33,775	27,125	17.1	11.2

Premium businesses	Per hectare 2019/20^	Per £100 of gross output 2019/20^	Crop output per cent of total crop output (%)			
			Average 2018/19	Average 2019/20	Premium 2019/20^	
Number of businesses	7	7				
Productive cropping area (ha)	3.79					
	£ per hectare	average %				
Gross output	185,426	100.0				
Variable costs						
Seed & young plants	42,819	23.1	Hardy nursery stock			
Fertilisers & composts	5,040	2.7	Glasshouse crops	26.8	22.2	
Crop protection	942	0.5	Outdoor crops	73.2	77.8	
Market charges	3,839	2.1	Other crops	0.0	0.0	
Packing materials	3,054	1.6	Total	100.0	100.0	
Horticultural sundries	2,322	1.3				
Glasshouse fuel	414	0.2				
Other variable costs	0	0.0				
Total variable costs	58,430	31.5	Distribution of tenant's type capital (%)			
Total gross margin	126,996	68.5				
				Average 2018/19	Average 2019/20	Premium 2019/20^
Fixed costs						
Labour:			Crops & tillages	40	41	39
Regular paid	41,060	22.1	Stores	7	9	6
Regular unpaid	8,699	4.7	Glasshouses	4	4	2
Casual labour	4,663	2.5	Equipment	16	19	18
			Livestock	0	0	0
Power & machinery costs:			Other	33	27	34
Contract & hire	1,595	0.9	Total	100	100	100
Fuel & electricity	3,895	2.1				
Repairs	3,357	1.8	Tenant's capital (£)	745,946	792,442	1,086,518
Machinery depreciation	4,531	2.4				
Glasshouse depreciation	386	0.2				
Rent (incl. imputed)	4,448	2.4				
Other costs:						
Occupier's repairs	2,612	1.4				
Permanent crop depreciation	0	0.0				
Water	471	0.3				
Sundries	12,128	6.5				
Total fixed costs	87,844	47.4				
Management & investment income	39,152	21.1				
Minus: management salaries	0	0.0				
Plus: farmer & spouse labour	6,620	3.6				
Net farm income	45,772	24.7				
Farm business income	43,881	23.7				

^ Data is derived from a modest sample size and thus there is a lower degree of confidence in the figures

Table 2.18 Intensive hardy nursery stock - crop output more than £175,000 per hectare*

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19	2019/20[^]	2018/19	2019/20[^]	2018/19	2019/20[^]
Number of businesses	17	12	17	12	17	12
Productive cropping area (ha)	1.89	1.80	1.89	1.80		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	646,752	682,686	341,955	379,979	100.0	100.0
Variable costs						
Seed & young plants	136,969	168,726	72,419	93,912	21.2	24.7
Fertilisers & composts	27,690	28,572	14,641	15,903	4.3	4.2
Crop protection	5,061	6,520	2,676	3,629	0.8	1.0
Market charges	36,853	32,045	19,485	17,836	5.7	4.7
Packing materials	23,430	21,174	12,388	11,785	3.6	3.1
Horticultural sundries	16,160	26,602	8,544	14,807	2.5	3.9
Glasshouse fuel	2,749	2,418	1,453	1,346	0.4	0.4
Other variable costs	0	0	0	0	0.0	0.0
Total variable costs	248,911	286,057	131,606	159,218	38.5	41.9
Total gross margin	397,840	396,629	210,349	220,761	61.5	58.1
Fixed costs						
Labour:						
Regular paid	144,264	160,178	76,276	89,154	22.3	23.5
Regular unpaid	40,773	46,716	21,557	26,002	6.3	6.8
Casual labour	35,041	21,183	18,527	11,790	5.4	3.1
Power & machinery costs:						
Contract & hire	6,712	6,800	3,549	3,785	1.0	1.0
Fuel & electricity	11,686	13,704	6,179	7,628	1.8	2.0
Repairs	10,510	11,956	5,557	6,655	1.6	1.8
Machinery depreciation	14,803	14,182	7,827	7,894	2.3	2.1
Glasshouse depreciation	2,506	2,571	1,325	1,431	0.4	0.4
Rent (incl. imputed)	8,759	10,793	4,631	6,007	1.4	1.6
Other costs:						
Occupier's repairs	8,864	11,521	4,686	6,413	1.4	1.7
Permanent crop depreciation	0	0	0	0	0.0	0.0
Water	2,881	3,059	1,523	1,703	0.4	0.4
Sundries	29,690	35,647	15,698	19,841	4.6	5.2
Total fixed costs	316,489	338,311	167,336	188,302	48.9	49.6
Management & investment income	81,351	58,318	43,012	32,460	12.6	8.5
Minus: management salaries	275	110	146	61	0.0	0.0
Plus: farmer & spouse labour	28,449	28,712	15,042	15,981	4.4	4.2
Net farm income	109,525	86,920	57,908	48,379	16.9	12.7
Farm business income	107,882	91,698	57,040	51,038	16.7	13.4

[^] Data is derived from a modest sample size and thus there is a lower degree of confidence in the figures

Crop output per cent of total crop output (%)

	Average 2018/19	Average 2019/20^
Hardy nursery stock		
Glasshouse crops	30.9	35.2
Outdoor crops	69.1	64.8
Other crops	0.0	0.0
Total	100.0	100.0

Distribution of tenant's type capital (%)

	Average 2018/19	Average 2019/20^
Crops & tillages	42	39
Stores	5	5
Glasshouses	4	5
Equipment	17	18
Livestock	0	0
Other	32	34
Total	100	100

Tenant's capital (£) **953,799** **911,748**

** no premium figures, sample too small*

Table 2.19 Extensive hardy nursery stock - crop output less than £175,000 per hectare*

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19 [^]	2019/20 [^]	2018/19 [^]	2019/20 [^]	2018/19 [^]	2019/20 [^]
Number of businesses	11	9	11	9	11	9
Productive cropping area (ha)	3.24	3.17	3.24	3.17		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	236,940	246,546	73,096	77,739	100.0	100.0
Variable costs						
Seed & young plants	41,593	46,088	12,831	14,532	17.6	18.7
Fertilisers & composts	7,163	8,625	2,210	2,720	3.0	3.5
Crop protection	2,262	2,772	698	874	1.0	1.1
Market charges	4,888	3,396	1,508	1,071	2.1	1.4
Packing materials	3,294	5,119	1,016	1,614	1.4	2.1
Horticultural sundries	8,964	4,334	2,765	1,367	3.8	1.8
Glasshouse fuel	269	327	83	103	0.1	0.1
Other variable costs	0	0	0	0	0.0	0.0
Total variable costs	68,433	70,662	21,112	22,281	28.9	28.7
Total gross margin	168,508	175,884	51,985	55,458	71.1	71.3
Fixed costs						
Labour:						
Regular paid	49,189	58,137	15,175	18,331	20.8	23.6
Regular unpaid	28,341	29,537	8,743	9,313	12.0	12.0
Casual labour	12,588	16,648	3,883	5,249	5.3	6.8
Power & machinery costs:						
Contract & hire	863	1,046	266	330	0.4	0.4
Fuel & electricity	7,968	6,286	2,458	1,982	3.4	2.5
Repairs	4,880	5,715	1,505	1,802	2.1	2.3
Machinery depreciation	4,755	4,702	1,467	1,483	2.0	1.9
Glasshouse depreciation	737	642	227	203	0.3	0.3
Rent (incl. imputed)	13,727	13,134	4,235	4,141	5.8	5.3
Other costs:						
Occupier's repairs	4,034	4,274	1,245	1,348	1.7	1.7
Permanent crop depreciation	0	0	0	0	0.0	0.0
Water	1,501	2,075	463	654	0.6	0.8
Sundries	18,329	19,699	5,654	6,211	7.7	8.0
Total fixed costs	146,913	161,897	45,323	51,048	62.0	65.7
Management & investment income	21,595	13,987	6,662	4,410	9.1	5.7
Minus: management salaries	0	0	0	0	0.0	0.0
Plus: farmer & spouse labour	28,341	29,537	8,743	9,313	12.0	12.0
Net farm income	49,936	43,524	15,405	13,724	21.1	17.7
Farm business income	44,014	42,333	13,578	13,348	18.6	17.2

[^] Data is derived from a modest sample size and thus there is a lower degree of confidence in the figures

Crop output per cent of total crop output (%)

	Average 2018/19^	Average 2019/20^
Hardy nursery stock		
Glasshouse crops	8.5	10.8
Outdoor crops	91.5	89.2
Other crops	0.0	0.0
Total	100.0	100.0

Distribution of tenant's type capital (%)

	Average 2018/19^	Average 2019/20^
Crops & tillages	36	29
Stores	13	13
Glasshouses	3	3
Equipment	13	19
Livestock	0	0
Other	35	36
Total	100	100
Tenant's capital (£)	436,707	313,612

** no premium figures, sample too small*

Table 2.20 All other horticulture businesses

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19	2019/20	2018/19	2019/20	2018/19	2019/20
Number of businesses	46	46	46	46	46	46
Productive cropping area (ha)	25.82	26.10	25.82	26.10		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	377,836	358,134	14,632	13,724	100.0	100.0
Variable costs						
Seed & young plants	33,641	34,240	1,303	1,312	8.9	9.6
Fertilisers & composts	11,631	10,689	450	410	3.1	3.0
Crop protection	10,311	11,691	399	448	2.7	3.3
Market charges	17,373	18,517	673	710	4.6	5.2
Packing materials	16,535	18,842	640	722	4.4	5.3
Horticultural sundries	13,327	12,130	516	465	3.5	3.4
Glasshouse fuel	1,427	750	55	29	0.4	0.2
Other variable costs	270	93	10	4	0.1	0.0
Total variable costs	104,514	106,952	4,047	4,098	27.7	29.9
Total gross margin	273,322	251,181	10,585	9,625	72.3	70.1
Fixed costs						
Labour:						
Regular paid	83,255	70,429	3,224	2,699	22.0	19.7
Regular unpaid	33,636	33,650	1,303	1,289	8.9	9.4
Casual labour	43,034	51,076	1,667	1,957	11.4	14.3
Power & machinery costs:						
Contract & hire	11,011	11,674	426	447	2.9	3.3
Fuel & electricity	14,440	14,773	559	566	3.8	4.1
Repairs	10,315	10,606	399	406	2.7	3.0
Machinery depreciation	13,787	14,645	534	561	3.6	4.1
Glasshouse depreciation	1,061	1,088	41	42	0.3	0.3
Rent (incl. imputed)	20,202	20,417	782	782	5.3	5.7
Other costs:						
Occupier's repairs	4,404	4,770	171	183	1.2	1.3
Permanent crop depreciation	958	1,778	37	68	0.3	0.5
Water	1,955	1,931	76	74	0.5	0.5
Sundries	16,712	15,596	647	598	4.4	4.4
Total fixed costs	254,771	252,431	9,866	9,673	67.4	70.5
Management & investment income	18,551	-1,250	718	-48	4.9	-0.3
Minus: management salaries	674	349	26	13	0.2	0.1
Plus: farmer & spouse labour	24,469	25,594	948	981	6.5	7.1
Net farm income	42,346	23,995	1,640	920	11.2	6.7
Farm business income	46,305	26,273	1,793	1,007	12.3	7.3

Premium businesses	Per	Per £100	Crop output per cent of total crop output (%)			
	hectare	of gross	Average	Average	Premium	
	2019/20^	output	2018/19	2019/20	2019/20^	
		2019/20^				
Number of businesses	13	13				
Productive cropping area (ha)	21.79					
	£ per hectare	average %				
Gross output	12,717	100.0				
Variable costs						
Seed & young plants	723	5.7	Glasshouse crops	13.1	11.6	4.1
Fertilisers & composts	245	1.9	Outdoor vegetables:			
Crop protection	360	2.8	Brassicas	4.2	3.8	5.6
			Legumes	0.2	0.3	0.6
Market charges	310	2.4	Salad crops	0.1	0.1	0.1
Packing materials	249	2.0	Other outdoor vegetables	20.8	16.1	5.3
Horticultural sundries	519	4.1	Flowers & nursery stock	9.6	9.6	12.4
Glasshouse fuel	0	0.0	Soft fruit	30.9	36.9	22.1
Other variable costs	7	0.1	Top fruit	0.1	0.1	0.5
			Other crops	21.0	21.6	49.3
Total variable costs	2,412	19.0	Total	100.0	100.0	100.0
Total gross margin	10,305	81.0	Distribution of tenant's type capital (%)			
				Average	Average	Premium
				2018/19	2019/20	2019/20^
Fixed costs						
Labour:			Crops & tillages	12	13	12
Regular paid	779	6.1	Stores	6	6	7
Regular unpaid	1,014	8.0	Glasshouses	4	4	0
Casual labour	2,359	18.6	Equipment	33	34	50
			Livestock	0	0	0
Power & machinery costs:			Other	45	43	30
Contract & hire	506	4.0	Total	100	100	100
Fuel & electricity	642	5.0				
Repairs	445	3.5	Tenant's capital (£)	485,488	479,251	399,152
Machinery depreciation	914	7.2				
Glasshouse depreciation	1	0.0				
Rent (incl. imputed)	761	6.0				
Other costs:						
Occupier's repairs	96	0.8				
Permanent crop depreciation	151	1.2				
Water	70	0.5				
Sundries	483	3.8				
Total fixed costs	8,222	64.7				
Management & investment income	2,083	16.4				
Minus: management salaries	0	0.0				
Plus: farmer & spouse labour	883	6.9				
Net farm income	2,966	23.3				
Farm business income	2,520	19.8				

^ Data is derived from a modest sample size and thus there is a lower degree of confidence in the figures

Table 2.21 Other horticulture businesses, mainly outdoor vegetable crops*

	<i>Per business</i>		<i>Per hectare</i>		<i>Per £100 of gross output</i>	
	2018/19	2019/20	2018/19	2019/20	2018/19	2019/20
Number of businesses	17	15	17	15	17	15
Productive cropping area (ha)	14.91	10.93	14.91	10.93		
	<i>Average £/business</i>		<i>Average £/hectare</i>		<i>Average %</i>	
Gross output	314,546	259,618	21,103	23,744	100.0	100.0
Variable costs						
Seed & young plants	23,864	22,841	1,601	2,089	7.6	8.8
Fertilisers & composts	8,974	4,605	602	421	2.9	1.8
Crop protection	6,450	4,330	433	396	2.1	1.7
Market charges	13,967	14,394	937	1,316	4.4	5.5
Packing materials	20,031	19,907	1,344	1,821	6.4	7.7
Horticultural sundries	3,989	3,481	268	318	1.3	1.3
Glasshouse fuel	596	239	40	22	0.2	0.1
Other variable costs	565	182	38	17	0.2	0.1
Total variable costs	78,436	69,979	5,262	6,400	24.9	27.0
Total gross margin	236,109	189,639	15,841	17,344	75.1	73.0
Fixed costs						
Labour:						
Regular paid	89,329	67,009	5,993	6,129	28.4	25.8
Regular unpaid	38,419	39,771	2,578	3,637	12.2	15.3
Casual labour	13,732	17,457	921	1,597	4.4	6.7
Power & machinery costs:						
Contract & hire	13,296	11,969	892	1,095	4.2	4.6
Fuel & electricity	13,491	10,819	905	989	4.3	4.2
Repairs	9,432	7,169	633	656	3.0	2.8
Machinery depreciation	9,806	7,260	658	664	3.1	2.8
Glasshouse depreciation	753	755	51	69	0.2	0.3
Rent (incl. imputed)	15,008	12,819	1,007	1,172	4.8	4.9
Other costs:						
Occupier's repairs	3,248	3,899	218	357	1.0	1.5
Permanent crop depreciation	434	1,099	29	101	0.1	0.4
Water	1,574	2,053	106	188	0.5	0.8
Sundries	16,898	15,301	1,134	1,399	5.4	5.9
Total fixed costs	225,420	197,379	15,124	18,052	71.7	76.0
Management & investment income	10,689	-7,739	717	-708	3.4	-3.0
Minus: management salaries	1,434	716	96	66	0.5	0.3
Plus: farmer & spouse labour	28,850	31,310	1,936	2,864	9.2	12.1
Net farm income	38,105	22,854	2,557	2,090	12.1	8.8
Farm business income	36,412	19,751	2,443	1,806	11.6	7.6

Crop output per cent of total crop output (%)

	Average 2018/19	Average 2019/20
Glasshouse crops	12.6	9.0
Outdoor vegetables:		
Brassicas	12.1	13.6
Legumes	0.0	0.0
Salad crops	0.4	0.4
Other outdoor vegetables	61.9	62.1
Flowers & nursery stock	0.1	0.1
Soft fruit	2.4	2.6
Top fruit	0.2	0.4
Other crops	10.4	11.8
Total	100.0	100.0

Distribution of tenant's type capital (%)

	Average 2018/19	Average 2019/20
Crops & tillages	3	2
Stores	3	4
Glasshouses	3	4
Equipment	28	23
Livestock	1	0
Other	63	67
Total	100	100
Tenant's capital (£)	412,839	352,246

** no premium figures, sample too small*

Table 2.22 Balance sheet data for horticultural businesses

Group	All horticulture		Specialist glass		Specialist fruit	
Number of businesses	151		42		40	
Harvest year	2019/20 Opening	2019/20 Closing	2019/20 Opening	2019/20 Closing	2019/20 Opening	2019/20 Closing
Assets						
Fixed assets						
Land, buildings & SPS entitlement	657,339	669,448	522,463	536,710	965,553	957,566
Breeding livestock	701	654	0	0	2,551	2,389
Machinery & glasshouses	78,411	84,213	108,739	122,293	72,892	73,233
Permanent crops	20,762	19,626	0	0	72,757	69,010
Miscellaneous business assets	234	234	96	96	295	295
Total fixed assets	757,448	774,176	631,298	659,098	1,114,047	1,102,493
Current assets						
Crops & trading livestock	63,648	64,576	23,015	22,875	36,386	25,878
Goods in store	24,428	25,026	52,182	51,833	18,099	18,689
Liquid assets	114,097	126,273	187,950	238,251	124,132	158,591
Total current assets	202,172	215,876	263,147	312,958	178,618	203,157
Total assets	959,620	990,052	894,446	972,057	1,292,665	1,305,651
Liabilities						
Bank term loan	39,049	44,660	82,081	87,850	31,969	29,560
Other loans	47,314	37,635	52,495	55,809	58,452	57,031
Bank overdraft	26,214	30,158	9,629	9,794	15,991	17,932
Other short term loans	68,362	74,424	91,759	115,642	68,305	84,420
Total external liabilities	180,939	186,877	235,963	269,095	174,717	188,942
Net worth	778,681	803,174	658,483	702,962	1,117,948	1,116,708
Percentage equity (%)	81.1%	81.1%	73.6%	72.3%	86.5%	85.5%

Table 2.23 A comparison of net worth and percentage equity by farm type

	Average Assets 2019/20	Average Liabilities 2019/20	Average Net Worth 2019/20	Average % Equity 2019/20
Defra main farm type				
Lowland cattle & sheep	1,295,442	98,565	1,196,878	92.4%
Cereals	3,048,700	239,703	2,808,997	92.1%
Mixed	2,396,154	317,655	2,078,500	86.7%
General cropping	3,136,492	343,562	2,792,931	89.0%
Horticulture	974,836	183,908	790,928	81.1%
Dairy	2,415,522	476,409	1,939,113	80.3%
Pigs	1,686,127	396,853	1,289,275	76.5%
Poultry	1,873,892	702,165	1,171,728	62.5%
All businesses	2,114,861	248,691	1,866,170	88.2%

Group	Specialist HNS		Other horticulture	
	2019/20 Opening	2019/20 Closing	2019/20 Opening	2019/20 Closing
Number of businesses	23		46	
Harvest year	2019/20 Opening	2019/20 Closing	2019/20 Opening	2019/20 Closing
Assets				
Fixed assets				
Land, buildings & SPS entitlement	370,505	380,043	672,527	699,626
Breeding livestock	0	0	80	68
Machinery & glasshouses	74,207	77,990	77,187	86,097
Permanent crops	0	0	4,290	3,895
Miscellaneous business assets	575	575	1	1
Total fixed assets	445,287	458,608	754,085	789,685
Current assets				
Crops & trading livestock	156,382	171,060	30,726	30,578
Goods in store	33,835	37,047	15,301	14,400
Liquid assets	104,681	104,700	94,424	89,578
Total current assets	294,899	312,807	140,451	134,555
Total assets	740,186	771,415	894,536	924,240
Liabilities				
Bank term loan	42,211	36,904	30,681	49,083
Other loans	39,787	37,284	43,361	19,837
Bank overdraft	44,431	59,062	25,317	24,451
Other short term loans	60,574	58,672	67,577	67,461
Total external liabilities	187,002	191,921	166,936	160,831
Net worth	553,184	579,494	727,599	763,409
Percentage equity (%)	74.7%	75.1%	81.3%	82.6%

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Glossary

Costs

Expenditure plus opening valuation less closing valuation (where appropriate). Interest on borrowed capital, including bank overdrafts is not included in these calculations.

Farm Business Income (FBI)

Represents the return to all unpaid labour (farmers, spouses and others with an entrepreneurial interest in the farm business) and to all their capital invested in the farm business including land and farm buildings. It is defined as Total Farm Output (TFO) minus cost (C): where TFO is defined as the sum of output from: crop enterprises, adjustment for disposal of previous crops, livestock enterprises, separable non-agricultural diversifications, basic payment scheme, agri-environmental payments, other grants and subsidies, miscellaneous receipts; C is defined as variable costs plus fixed costs.

Farm crops

Comprise cereals and other non-horticultural cash crops, fodder crops and grassland.

Fixed costs

These include rent (or imputed rent), regular wages, unpaid manual labour, casual labour, power and machinery costs, glasshouse depreciation, building and general repairs, insurance, water, office expenses and miscellaneous expenditure.

Gross output

Total revenue inclusive of marketing charges, where known, adjusted for changes in valuation of crops and tillage, and less purchases of livestock, or produce for resale. Gross output per hectare reflects the intensity of the system as well as the yields and prices obtained.

Labour

Covers not only the costs of hired labour, but also an appropriate allowance for the unpaid manual labour of the grower and members of the family.

Management and investment income

Total gross output less all costs (including the value of unpaid labour) other than salaried management. It represents the reward to management and use of 'tenant's capital' whether that capital is borrowed or not.

Management salaries

Includes all paid managerial input and represents that part of total paid labour which relates to managerial work

Marketing charges

Include, where known, packhouse charges, paid carriage and commission and handling charges levied on sales.

Net farm income

Represents the return to the grower and spouse for their manual labour as well as for their management and capital investment.

Occupier's repairs

This includes maintenance of glass and the associated heating equipment, as well as traditional tenant type repairs.

Per £100 gross output

Shows the relative importance of the main resources used in each unit product, and in total provide a useful measure of profitability.

Power and machinery

Include contract and hire, fuel, electricity, repairs and an allowance for depreciation. A deduction is made for the private use of vehicles. Machinery depreciation is calculated on a 'replacement cost' basis.

Premium results

Farm performance is measured as the ratio of farm business output to farm business costs. An imputed value for unpaid manual labour, including that of the farmer and spouse is added to farm business costs. The value of paid managerial input is subtracted. The farms are ranked in descending order according to this ratio and allocated to quartiles with the top quartile (25 percent) representing the high performance band (Premium Group). Note that the farm weights are used to allocate farms to quartiles so the number of farms in a quartile will not necessarily be equivalent to a quarter of the sample.

Rent

In the case of an owner occupier, an imputed rent is charged in accordance with what a tenant in similar circumstances, including length of occupation, would be paying.

Standards

Average results are drawn from all businesses in a particular group.

Tenant's capital

Assets normally provided by tenants and includes growing crops, stores, machinery, livestock, cash and other assets needed to run the business. Permanent crops (including orchards) and glasshouses are also considered to be tenant-type capital. It represents approximately the capital currently invested in the horticultural business. The difficulties involved in making realistic assessments of tenant's capital, particularly of permanent fruit crops, should be kept in mind when interpreting these results.

Total gross margin

This is the difference between total gross output and total variable costs and measures the contribution of the business towards covering its fixed costs and providing for a profit.

Variable costs

These vary in direct proportion to the size of each business enterprise and include all purchased seed & plants, fertiliser & composts, crop protection, market charges, packing materials, horticultural sundries, glasshouse fuel and other variable costs.

Abbreviations used in this Publication

/	per
£	pounds (stirling)
Defra	Department for Environment, Food and Rural Affairs
Ave	Average
depn.	Depreciation
Fert	Fertiliser
ha	hectare
HNS	Hardy nursery stock
no.	number
n/a	not applicable

Rounding

Totals are calculated from unrounded components and may not therefore be the total of the rounded components shown.

Derivation of Farm Business Income

Net Farm Income

Plus:

Value of unpaid labour [excluding farmer & spouse; already taken into account in deriving Net Farm Income]

Imputed rent and rental value

Less:

Net interest payments

Ownership charges [buildings & works depreciation; insurance of farm buildings; landlord-type repairs and upkeep]

Director's remuneration

Equals:

Farm Business Income

Appendix 1: Reports in this series

- **Crop Production in England**
- **Dairy Farming in England**
- **Hill Farming in England**
- **Horticulture Production in England**
- **Lowland Grazing Livestock in England**
- **Organic Farming in England**
- **Pig Production in England**
- **Poultry Production in England**

Details available at www.ruralbusinessresearch.co.uk

RBR at Reading
Agriculture and Food Investigation Team
School of Agriculture, Policy and Development
University of Reading
Earley Gate
Whiteknights Road
Reading
RG6 6EU

Phone 0118 378 7426

www.ruralbusinessresearch.co.uk