
THE NATIONAL FARMERS UNION
THE BRITISH GROWERS ASSOCIATION
BRITISH SUMMER FRUITS
BRITISH APPLES & PEARS

*“The Potential Implications of Covid-19 for the
Costs of Production of UK Fruit & Vegetables in 2020”*

A First Report

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1 INTRODUCTION

1.1 The Instruction

The National Farmers Union, the British Growers Association, British Summer Fruits and British Apples and Pears have jointly instructed John Pelham of Andersons Midlands to prepare a report on the potential implications of Covid-19 for UK fruit and vegetable growers' costs of production in 2020.

The early completion of this report was considered important to assist growers, marketeers, their customers and government. One disadvantage of publishing at the beginning of June 2020 is that some observations on increased costs of production will be based on forecast, rather than actual, data. This is therefore a first report, providing financial illustrations for those crops where actual information is already available; a further update is anticipated later in the year when actual data is available for those crops yet to reach their period of significant expenditure.

The author would emphasise that this report has been based on the circumstances that apply at the time of writing – and includes no speculation on the financial consequences of possible future events (the most threatening to most businesses being the inability to operate with either some or all of their workforce as a result of a Covid-19 issue).

1.2 Andersons Midlands

Andersons Midlands is one of four independent practices, trading under the style of Andersons the Farm Business Consultants and providing independent business advice to agricultural, horticultural and rural businesses, as well as the supporting allied industries.

This Report has been prepared by John Pelham, a partner in Andersons Midlands, whose own areas of special expertise include horticulture. A curriculum vitae for the author is included as an appendix to this report.

1.3 Summary of Report Content

Section 2 includes an Executive Summary of the report findings.

Section 3 provides an overview of fruit and vegetable production in the UK, whilst Section 4 considers the changing economics of UK fruit and vegetable production.

Section 5 explains how and what grower feedback was gathered, identifying the key cost increases that have or are likely to occur as a result of Covid-19.

Section 6 sets out four illustrations of the potential increases in the costs of production for growers in 2020 – for asparagus, strawberries, lettuce and apple packing.

2 EXECUTIVE SUMMARY

- UK growers are important suppliers of fruit and vegetables to UK consumers, producing over £2 billion of produce each year. For some crops (e.g. cabbages, carrots) they provide nearly all UK consumers' requirements.
- Compared with many UK farming enterprises, fruit and vegetable crops have high costs of production, making them particularly susceptible to cost inflation.
- For many growers, employment is their single most significant cost, accounting for 40-70% of all costs.
- UK growers have a significant requirement for seasonal labour for the May-October period, both for the husbandry and harvesting of crops, estimated to be some 70–80,000 workers annually.
- In the five years 2016–2020 the cost of seasonal labour has increased by at least 34%, whilst the prices that growers have received for their produce have changed little, if at all.
- Covid-19 has increased the costs of production for all fruit and vegetable growers, most significantly for the costs of employment.
- There are five main categories in which growers' employment costs have increased:
 - i. Worker availability and recruitment
 - ii. Training
 - iii. Accommodation
 - iv. Transport and logistics
 - v. Operations
- There is variation between growers in the extent to which these categories apply and the consequences for their costs of production. Broadly speaking, it is those enterprises that employ greater amounts of labour that already have incurred, or anticipate incurring, the most significant cost increases.
- A number of fruit and vegetable crops have yet to commence their main production periods (e.g. brassicas and apples). Whilst growers may already have some indication of their cost increases, financial illustrations have not been prepared for these crops in this First Report, although they may well be covered in an update when more actual data is available.
- Financial illustrations have been prepared for four crop categories – asparagus, strawberries, lettuce and apple packing. These provide an indication of the range of costs that would have been incurred if Covid-19 had not occurred, together with an estimate of the range of potential cost increases resulting from Covid-19. It should be noted that there will be some growers (or some crops produced by individual growers) that will fall outside these ranges.
- The percentages of Covid-related employment cost increases in the four calculations range from 6% as the lowest to 15% as the highest estimates. It is confirmed that these estimates do not include the April 2020 National Living Wage increase.

3 UK FRUIT & VEGETABLE PRODUCTION – A SUMMARY

3.1 The Crops Grown

An area of some 151,000 hectares of fruit and vegetable crops is grown in the UK with a total value of over £2 billion.

A breakdown of the area and output between the two categories shows:

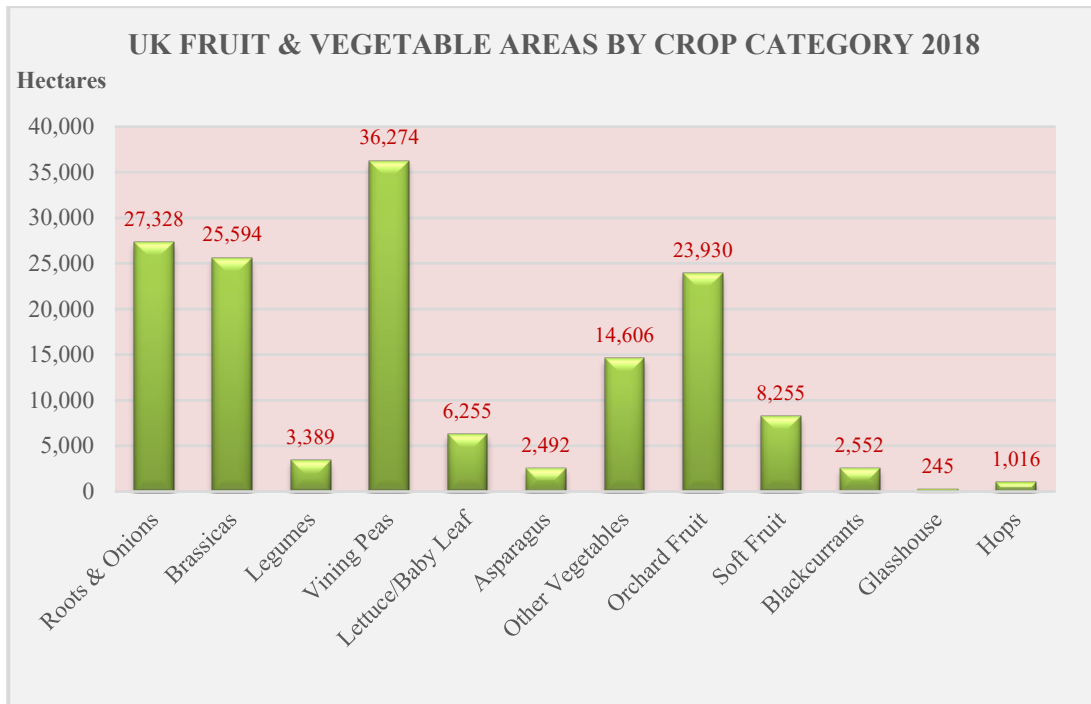
**TABLE 1
UK FRUIT & VEGETABLE AREAS & OUTPUT 2018**

Category	Hectares	Output £ Million	Average Output / Hectare £
Fruit	34,493	769	22,300
Vegetables	116,741	1,419	12,200
Combined	151,234	2,188	14,500

Source: DEFRA

The areas of the principal fruit and vegetable crop categories are as follows:

TABLE 2



Source: DEFRA

3.2 Value of Production

Of the 2018 total value of UK grown fruit and vegetable production of some £2.2 billion, the output (or turnover), by value, of the main categories was as follows:

TABLE 3
TURNOVER OF MAIN FRUIT & VEGETABLE CATEGORIES 2018

Category	£ Million
Roots & Onions	381
Brassicas	213
Legumes	39
Vining Peas	38
Lettuce	173
Asparagus	25
Other Vegetables	220
Orchard Fruit	243
Soft Fruit	466
Glasshouse	247

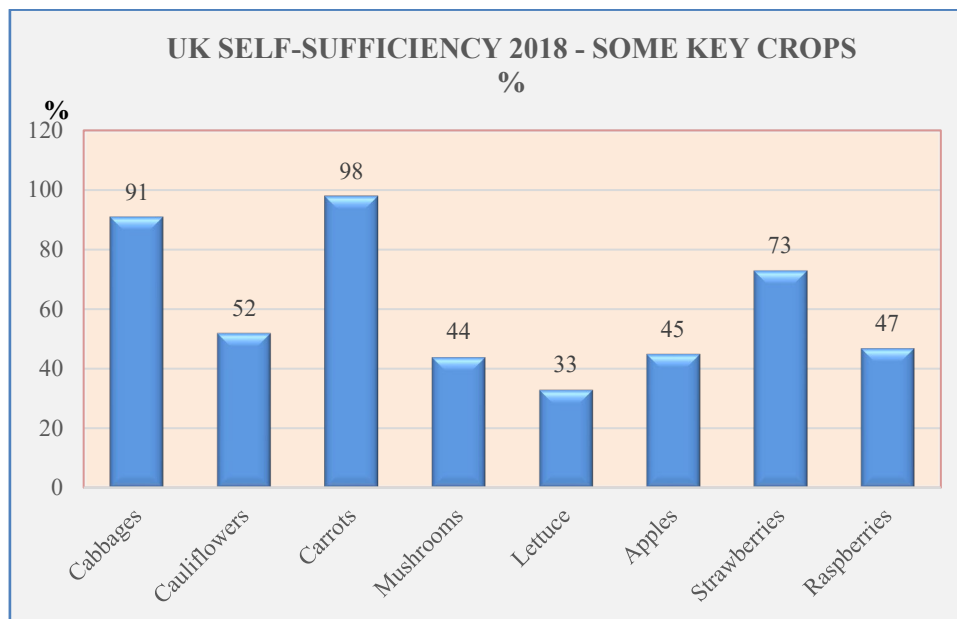
Source: DEFRA

3.3 UK Self Sufficiency

UK growers are vital suppliers of fruit and vegetables to the UK market, providing a significant proportion (and for some crops nearly all) of UK consumers' needs.

The following chart provides an illustration of UK self-sufficiency for some important fruit and vegetable crops grown in this country:

TABLE 4



Source: DEFRA

4 UK FRUIT & VEGETABLE PRODUCTION – THE CHANGING ECONOMICS

4.1 An Overview

The central economic fact of life for all growers is that, whilst the sale value of their produce remains largely static, their costs of production increase each year.

In the face of this economic pincer, growers have adopted a range of techniques to raise productivity including mechanisation, new crop varieties, improved growing systems and crop coverings. Despite these productivity gains, the continuing effect of cost inflation (particularly for labour and the capital cost of machinery) has resulted in the returns to growers in a number of categories becoming concerningly low, particularly in the light of the significant risks – not least from weather – under which their businesses operate. 100 millimetres of rain on the eastern side of the country in just four days in June 2019, and its highly damaging consequences for vegetable growers, is a case in point.

The distinguishing economic feature of fruit and vegetable crops is high costs of production, which make the grower of these crops particularly susceptible to cost inflation. For many, but not all, their highest cost is labour, where inflationary increases are higher than for any other cost category.

4.2 The Requirement for Labour

Whilst there are some vegetable crops where mechanisation has significantly reduced the requirement for labour (carrots and onions, for example), the cost of labour for many fruit and vegetable growers accounts for as much as 40-70% of all expenditure.

This feature makes many fruit and vegetable crops different from those broadacre crops, such as wheat, barley and oilseed rape, that dominate the UK lowland landscape. By way of illustration, the cost of labour for wheat production – the most widely grown crop in the UK – is typically in the range £80-150 per hectare; the range for field strawberry production, for example, is typically £40,000-70,000 per hectare.

A further distinguishing feature of the labour used in fruit and vegetable production is that a significant proportion is seasonal, with the greatest demand being for the husbandry and harvesting of crops between May and October. The overall annual requirement for seasonal labour in the UK is estimated at 70–80,000 workers, the majority of which has, in the last two decades, been recruited from EU member states.

Whilst a detailed review of wage costs, and how they have been changing, is not the main purpose of this report, it is nonetheless important – when considering the potential implications of Covid-19 – to consider the economic conditions that have prevailed in the period up to the onset of the virus. This will provide an indication of the capacity of fruit

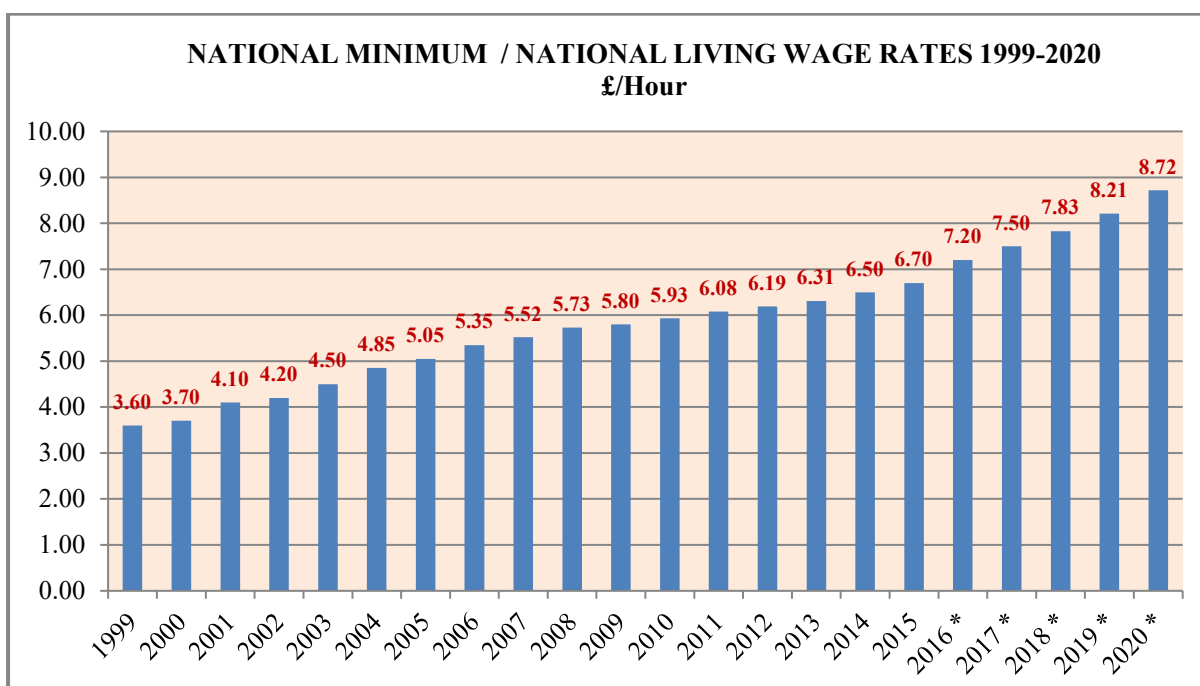
and vegetable businesses to carry the additional, unanticipated costs arising from Covid-19.

4.3 Changing Labour Costs

From April 1999 until March 2016 wage rates for seasonal workers were set by the provisions of the National Minimum Wage (NMW). Since April 2016 the NMW has been superseded by the National Living Wage (NLW).

Changing wage rates – in £ per hour – during the period April 1999–April 2020 are as follows:

TABLE 5



* National Living Wage 25 years+

With the introduction of the NLW in April 2016, following an NMW award in October 2015, there were effectively two wage increases within six months. In the last five years, from 2016-2020, the basic hourly rate has risen from £6.50 to £8.72 per hour, an increase over the period of just over 34%.

This unusually high level of recent wage inflation means that many businesses have limited capacity to absorb additional costs.

This is the context in which we should consider the financial implications of Covid-19.

5 COVID-19 – AN INITIAL ASSESMENT OF THE IMPLICATIONS

5.1 The Approach Adopted

The main stages in the preparation of this report have been as follows:

- **Questionnaire** – a questionnaire was drawn up to gather growers’ feedback on the ways in which Covid-19 had already or was likely to increase their costs of production in 2020, together with any calculations they had undertaken.
- **Questionnaire circulation** – the questionnaire was sent to growers representing the main categories of fruit and vegetable production during the second week of May; responses were received from twenty-seven businesses with a combined turnover of over £600 million.
- **Grower interviews** – the author undertook follow-up interviews with all of the respondents to go through their feedback and discuss, in more detail, where cost increases had already been incurred, or were anticipated, and how these could be calculated.
- **Further interviews** – having prepared preliminary illustrative calculations for selected crops, the author undertook further interviews with a number of the respondents to validate the approach adopted and figures employed.
- **First report** – completed and circulated at beginning of second week in June.

5.2 An Overview of Grower Feedback

The striking feature of the economics of farming, in all sectors of the industry, is the significant differences in costs of production both within and between individual businesses, as well as from season to season. This is due to a wide range of variable factors including weather, location (soils, aspect, topography, closeness to market), crop type or variety, production system, customer specification and so on.

These observations are particularly true of fruit and vegetable crops and this is reflected in the grower feedback. Whilst all growers identified increases in their costs of production, there was a range in their assessments of the consequences of Covid-19.

All growers have, or will, incur new materials costs (e.g. personal protective equipment, hygiene equipment and products), but the principal feedback was that these were less significant than the central issue that faced all growers, regardless of either crop(s) grown or scale of production. That central issue was increases in employment costs.

In summary there are five main categories where growers have identified significant employment cost increases:

- i. Worker availability and recruitment
- ii. Training
- iii. Accommodation
- iv. Transport and logistics
- v. Operations

5.3 Worker Availability and Recruitment

Whilst some growers have been able to recruit their seasonal workforces without extra cost, many reported incurring additional expenditure to acquire adequate staff, either from the EU or UK. Additional costs have included:

- New recruitment campaigns.
- Funding transport (including, in some cases, air travel).
- Agents fees.
- Processing, selecting and interviewing new applicants.,

5.4 Training

One indicator that growers use in measuring labour productivity is the proportion of their workforce who have been on the farm in the previous season or seasons – the so-called “returnees”. This measure is important in that these workers have already been trained and gained the experience to be able to operate at productive rates. Many growers will target a 60-70% returnee rate.

Conversely, new workers lack both training and experience, so not only incur additional induction costs, but also – without experience – have much lower productivity. Some new workers may not reach commercial work rates until their second season on a holding.

For certain growers (although not all), Covid-19 has reduced the number of returnees, to as low as 30%; training costs, for new workers, have increased accordingly.

Ensuring that all employees are fully briefed on new Covid-19 procedures for social distancing and hygiene has also increased the requirement both for initial and continuing training.

5.5 Accommodation

Reasons for cost increases in this area include:

- Acquiring additional accommodation to provide quarantine facilities for newly arriving workers / suspected Covid-19 cases.
- Payment of workers' wages during quarantine period.
- Acquiring additional accommodation to reduce density of occupation and enable worker groups to be kept separate to counter potential cross-infection.
- Engaging new employees specifically for additional cleaning/hygiene operations.
- Setting up of on-site shop facilities to avoid workers having to leave the grower site.

5.6 Transport and Logistics

Where accommodation and working sites are close together transport is not an issue, but will be where workers have to travel (some growers will have working sites in both categories).

The two main increases in costs arise from:

- Increased vehicle movements resulting from significantly reduced vehicle occupancy rates.
- Cleaning of vehicles between trips.

5.7 Operations

All growers have seen cost increases in this category, both from new costs (e.g. additional staff or equipment) and from reduced productivity of existing or replacement employees.

Some examples include:

- The need for additional training and supervisory staff to ensure that social distancing in the workplace is organised, understood and maintained; for nearly all growers their ratio of supervisors to operating staff has increased.
- The introduction of new shift patterns for crop husbandry and harvesting operations to reduce/remove contact between worker groups (to reduce risk of cross- infection).
- A higher turnover and significantly lower work rates in newly recruited staff.
- The requirement in packhouses to introduce additional shifts to maintain social distancing, with additional overtime costs, together with the new cost of “deep cleaning” between shifts.
- The cleaning down of operations machinery (for example mechanical harvesting equipment) at operator changeover.

6 THE FINANCIAL ILLUSTRATIONS

6.1 The Categories Selected and Basis of Preparation

The following four illustrations have been prepared for crops where growers already have some actual information on their increased costs in the five categories (see paragraph 5.2).

As already noted, what characterises the costs of production of fruit and vegetables (as with all farming enterprises) is variability, both within and between grower businesses and from season to season – weather, location (soil quality, aspect, topography, closeness to market), crop site, crop type and variety, growing system, timing of production, customer specification and packaging format are just some of the reasons for this.

Therefore, the figures included in the illustrations have been prepared in ranges, including some examples for each of the reasons for variability. The costs of a production pre Covid-19 will represent a significant proportion of production of that crop category, although there will be some crops that fall outside the range. A median figure is also identified. These figures are based on both grower feedback and the author’s own extensive experience of working with growers and grower groups.

It should be noted that the percentage increases in costs due to Covid-19, included in the illustrations, take into account all increases in employment costs – whether for recruitment, training, accommodation, transport or operations – but are expressed as an increase in the cost of a unit of production (e.g. per head of lettuce).

These illustrations are based on growers’ best estimates of their increased costs for the whole season, assuming that there are no significant changes to their circumstances. No allowance has been made in the figures for possible future eventualities, such as a health issue on site or a re-imposition of stricter regulations in the UK generally.

Financial illustrations of the increased costs of employment have been prepared for:

- Asparagus
- Strawberries
- Lettuce
- Apple packing

The results are set out on each of the following four pages and include:

- 1) A summary of the main work categories.
- 2) Confirmation of the areas of additional cost.
- 3) Some examples of reasons for variation in costs of production.
- 4) A table including the summary of employment costs before Covid-19, and the potential increases in costs – both as a percentage and as £/pence per unit.
- 5) An outline assessment of the total additional cost for that crop category in 2020.

6.2 Asparagus Employment Cost Increases - Illustration

1) Main work tasks

- Planting
- Husbandry
- Harvesting
- Grading and Packing

2) Categories where additional costs incurred

- Recruitment
- Training
- Accommodation
- Transport
- Operations

3) Some examples of reasons for variation in costs of production

- Weather and growing conditions
- Production system – covered or uncovered
- Crop variety
- Timing of production
- Packing format (e.g. tips, spears, bundles)

ASPARAGUS EMPLOYMENT COST INCREASES ILLUSTRATIVE CALCULATION

Category	Type	Unit	
Employment cost pre-Covid	Range	Pence per kilogramme	220 – 360
Employment cost pre-Covid	Median	Pence per kilogramme	290
Covid-related employment cost increase	Range	%	6 – 12
Covid-related employment cost increase	Median	%	9
Covid-related employment cost increase	Range	Pence per kilogramme	13 – 43
Covid-related employment cost increase	Median	Pence per kilogramme	26

5) Sector impact

Annual production = 5,000 tonnes (DEFRA 2018).

At median increase Covid-related cost increase of 26 pence per kilogramme, or £260 per tonne:

TOTAL COST INCREASE = c. £1.3 MILLION

6.3 Strawberry Employment Cost Increases - Illustration

1) Main work tasks

- Planting and husbandry
- Polytunnel management
- Harvesting
- Packing
- Crop removal & disposal

2) Categories where additional costs incurred

- Recruitment
- Training
- Accommodation
- Transport
- Operations

3) Some examples of reasons for variation in costs of production

- Weather and growing conditions
- Production system – soil, substrate or glasshouse
- Crop type – Junebearer or Everbearer
- Strawberry variety
- Timing of production

STRAWBERRY EMPLOYMENT COST INCREASES ILLUSTRATIVE CALCULATION

Category	Type	Unit	
Employment cost pre-Covid	Range	£ per Tonne	1,200 – 1,600
Employment cost pre-Covid	Median	£ per Tonne	1,400
Covid-related employment cost increase	Range	%	6 – 10
Covid-related employment cost increase	Median	%	8.0
Covid-related employment cost increase	Range	£ per Tonne	72 – 160
Covid-related employment cost increase	Median	£ per Tonne	116
Covid-related employment cost increase	Range	Pence per 400 gram pack	2.9 – 6.4
Covid-related employment cost increase	Median	Pence per 400 gram pack	4.7

5) Sector impact

Annual production = 132,000 tonnes (DEFRA 2018).

At median increase Covid-related cost increase of £116 per tonne:

TOTAL COST INCREASE = c. £15 MILLION

6.4 Lettuce Employment Cost Increases – Illustration

1) Main work tasks

- Planting
- Husbandry
- Harvesting
- Packing

2) Categories where additional costs incurred

- Recruitment
- Training
- Accommodation
- Transport
- Operations

3) Some examples of reasons for variation in costs of production

- Weather and growing conditions
- Location (e.g. soil quality, proximity to market)
- Crop type/variety (e.g. Iceberg, Little Gem, Romaine)
- Timing of production
- Customer(s) supplied

**LETTUCE EMPLOYMENT COST INCREASES
ILLUSTRATIVE CALCULATION**

Category	Type	Unit	
Employment cost pre-Covid	Range	Pence per head	8 – 14
Employment cost pre-Covid	Median	Pence per head	11
Covid-related employment cost increase	Range	%	12 – 15
Covid-related employment cost increase	Median	%	13.5
Covid-related employment cost increase	Range	Pence per head	1.0 - 2.1
Covid-related employment cost increase	Median	Pence per head	1.5

5) Sector impact

Annual production = 92,000 tonnes (DEFRA 2018) equivalent to, say, 270 million lettuce heads.

At median increase Covid-related cost increase of 1.5 pence per head:

TOTAL COST INCREASE = c. £4 MILLION

6.5 Apple Packing Employment Cost Increases – Illustration

1) Main work tasks

- Handling
- Grading
- Packing
- Dispatch

2) Categories where additional costs incurred

- Recruitment
- Training
- Accommodation
- Operations

3) Some examples of reasons for variation in costs of production

- Layout/arrangement of packing facilities
- Number of customers supplied
- Customer product specifications
- Range of pack types and format
- Customer dispatch requirements

APPLE PACKING EMPLOYMENT COST INCREASES ILLUSTRATIVE CALCULATION

Category	Type	Unit	
Employment cost pre-Covid	Range	Pence per kilogramme	10 – 20
Employment cost pre-Covid	Median	Pence per kilogramme	15
Covid-related employment cost increase	Range	%	6 – 15
Covid-related employment cost increase	Median	%	10.5
Covid-related employment cost increase	Range	Pence per kilogramme	0.5 – 3.0
Covid-related employment cost increase	Median	Pence per kilogramme	1.6

5) Sector impact

Annual production = 298,000 tonnes (DEFRA 2018).

At median increase Covid-related cost increase of 1.6 pence per kilogram, or £16 per tonne:

TOTAL COST INCREASE = c. £4.8 MILLION

APPENDIX

EJ PELHAM CURRICULUM VITAE

John Pelham - MA (Oxon) Agricultural & Forest Sciences

Joined what was, then, David Anderson & Company in 1985, becoming a Partner in 1990 and assuming responsibility for the management of a consultancy team operating throughout the Midlands region.

One of the founding Partners of the Andersons Midlands practice, formed in 2001, and now based at their West Midlands office in Hereford.

With over 30 years' consultancy experience, he has provided advice to a large number of farming businesses throughout the UK, working with both cropping and livestock systems and drawing extensively on the seven years' practical experience previously gained in farming and farm management. He increasingly advises on strategy and business development and has particular expertise in helping businesses address the issue of succession. He has a detailed working knowledge of all aspects of business advice with particular experience in:

- * Strategic Business Planning
- * Financial forecasts and Investment Appraisal
- * Detailed enterprise costings and benchmarking for all crop and livestock systems
- * Specialist advice for horticulture
- * Farming systems and agricultural support
- * Contract Farming Agreements and Joint Ventures
- * Expert Witness
- * Training and Recruitment

Background and Practical Farming Experience

Brought up with farming background, Father being Principal of Hertfordshire College of Agriculture and Horticulture

- 1974-75** Farm worker on 700 acre farm with dairy, beef, pig and arable enterprises in Hertfordshire
- 1978** Graduated from Oxford University with degree in Agricultural and Forest Sciences
- 1978-79** Farm worker on 900 acre farm with dairy, beef, sheep and arable enterprises in Devon
- 1979-1983** Assistant Farm Manager on arable, fruit, livestock and leisure business in Suffolk
- 1983-1985** Farm Manager on 1,000 acres in County Westmeath, Eire including a 400 cow dairy herd, dairy youngstock and cereal cropping