



2019 Horticulture Sector Skills Survey – Sub-Sector Report: Ornamental Plant Production

*A report for the Ornamental Horticulture Roundtable
Group*

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Pye Tait Consulting

Registered in England, Company No: 04001365, VAT No: 755 8312 14 Registered office: Royal House, 110
Station Parade, Harrogate, North Yorkshire, HG1 1EP
Tel: 01423 509433

Email (enquiries related to this report): m.pye@pyetait.com

Email (general enquiries): info@pyetait.com

Website: www.pyetait.com

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1. Introduction

Ornamental Plant Production supported the employment of 15,700 people in 2017 and contributed £750m to UK GDP as well as £122m in tax revenues, according to Oxford Economics¹.

The research for this report on the sub-sector of Ornamental Plant Production was carried out as part of the wider research conducted by Pye Tait Consulting across the entire ornamental horticulture sector in 2019. The wider survey comprised 1,101 businesses in the ornamental horticulture sector.

The skills survey was based on the following research objectives and this mini-report has been so structured:

1. Define the ornamental horticulture sector, including all relevant sub-sectors, and estimate current and anticipated future UK workforce numbers, including additional and replacement demand
2. Understand the drivers of change affecting ornamental horticulture (including opportunities and constraints to growth) and how these are influencing employers' skills needs
3. Establish the profile of the horticulture workforce, including demographic information, ethnicity, qualifications attainment and working patterns
4. Quantify the prevalence of skills shortage and recruitment difficulties at all levels (including hard-to-fill vacancies) and reasons why these are being experienced
5. Quantify current skill levels and the future importance of those skills (using a skills-scoring approach), to determine future critical skills gaps and priority training needs
6. Identify the organisations that employers are using to provide training and highlight any gaps in training provision that can be identified by employers
7. Explore attitude, approaches and barriers to training.

The bespoke skills survey consortium supporting this work comprised the following organisations:

- Agriculture and Horticulture Development Board (AHDB),
- Arboricultural Association (AA),
- British Association of Landscape Industries (BALI),
- Chartered Institute of Horticulture (CIH),
- Horticultural Trades Association (HTA),
- Land Based Colleges & Universities Aspiring to Excellence (Landex),
- National Farmers' Union (NFU) and
- Royal Horticultural Society (RHS)

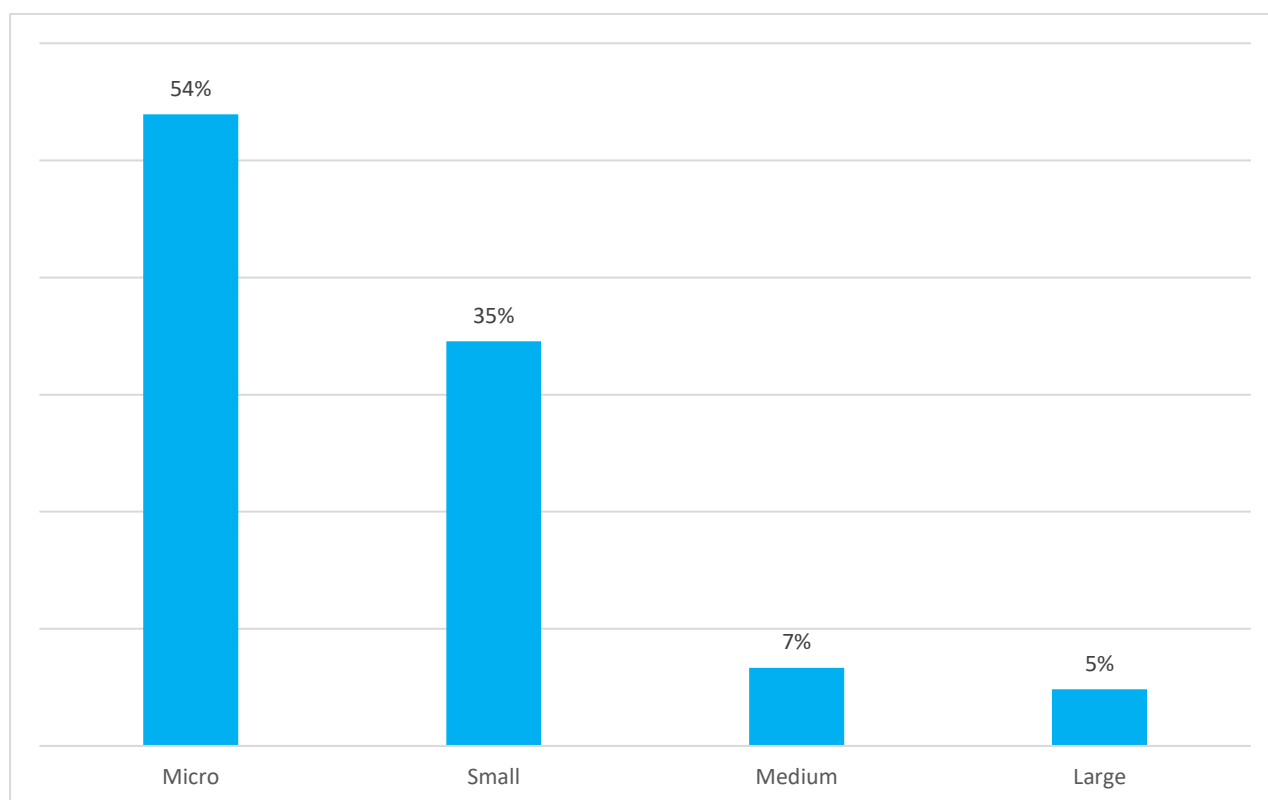
¹ Oxford Economics (2018), *The economic impact of ornamental horticulture in the UK*

1.1 Overview of Survey Participants – business size

The 170 businesses surveyed confirmed employing 3,394 workers, representing approximately 21% of the overall workforce (15,700) cited in the Oxford Economics report.

Of the 165 businesses² responding to this question, the majority (almost 90%) are micro and small businesses -which is not unexpected given the overall OH report shows that approximately 88% of business are micro or small. This figure is based on the definition of large businesses having 100+ employees.

Figure 1: Business size (large defined as 100+ employees)



Base: 165 respondents, single choice question

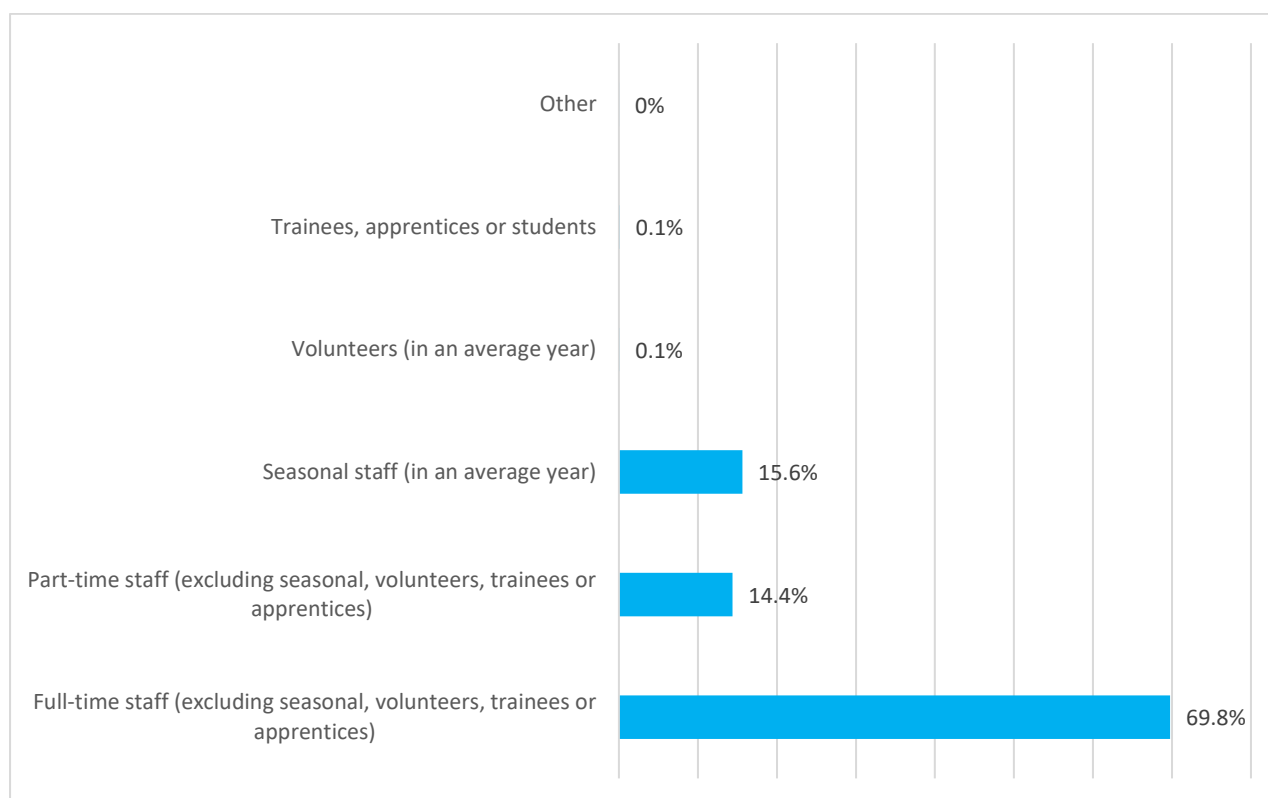
² It should be noted that not all businesses were able to answer each question or each in question in full detail. The base numbers for the survey responses and respondents may therefore vary from question to question.

2. Workforce

2.1 Workforce overview

Of the staff employed, a large majority (around 84%) work part-time or full-time. The proportion of seasonal staff is high at almost 16%. Apprentices and trainees constitute 0.1% of the workforce. The average number of apprentices per business was 0.7 in the last three years and is predicted to stay around that number in the next three years.

Figure 2: Working modes



Base: 168 respondents; 3394 responses, multiple choice question

2.1.1 Workforce age, residency, ethnicity, gender

Residency

Of the sector's employees, 77.2% are UK residents, 22.7% are EU residents (non-UK) and 0.1% are non-EU residents. These figures include seasonal workers.

Ethnicity

In terms of ethnic origin, the workforce is predominantly of British (93.2%) and other white (3.2%) backgrounds. These figures include seasonal workers.

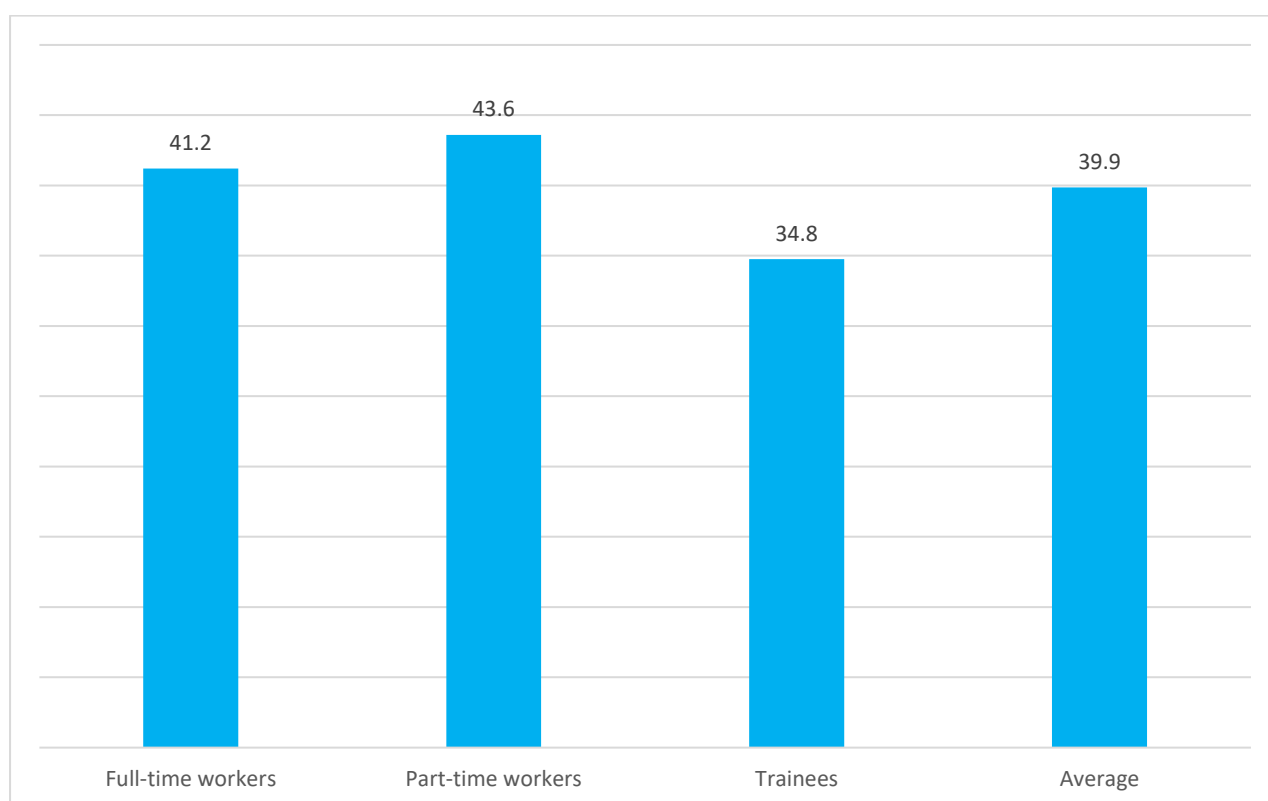
Gender

Regarding gender, the sector is nearly balanced between male (52.8%) and female (47.2%) employees. These figures include seasonal workers.

Age

As the figure below shows, the average age of the workforce is 39.9 years old. This figure excludes seasonal workers. Compared to the UK national average of 41.5 years, the workforce on the sector may not be seen as ageing, even though the age of part-time workers exceeds the national average by 2.1 years. What has to be emphasised in this context, is the physical nature of many tasks and jobs in the sector. It is therefore evident, that the sector’s highly skilled workforce is aging.

Figure 3: Age of workforce (excluding seasonal workers)



Base: 168 respondents; 2493 responses, multiple choice question

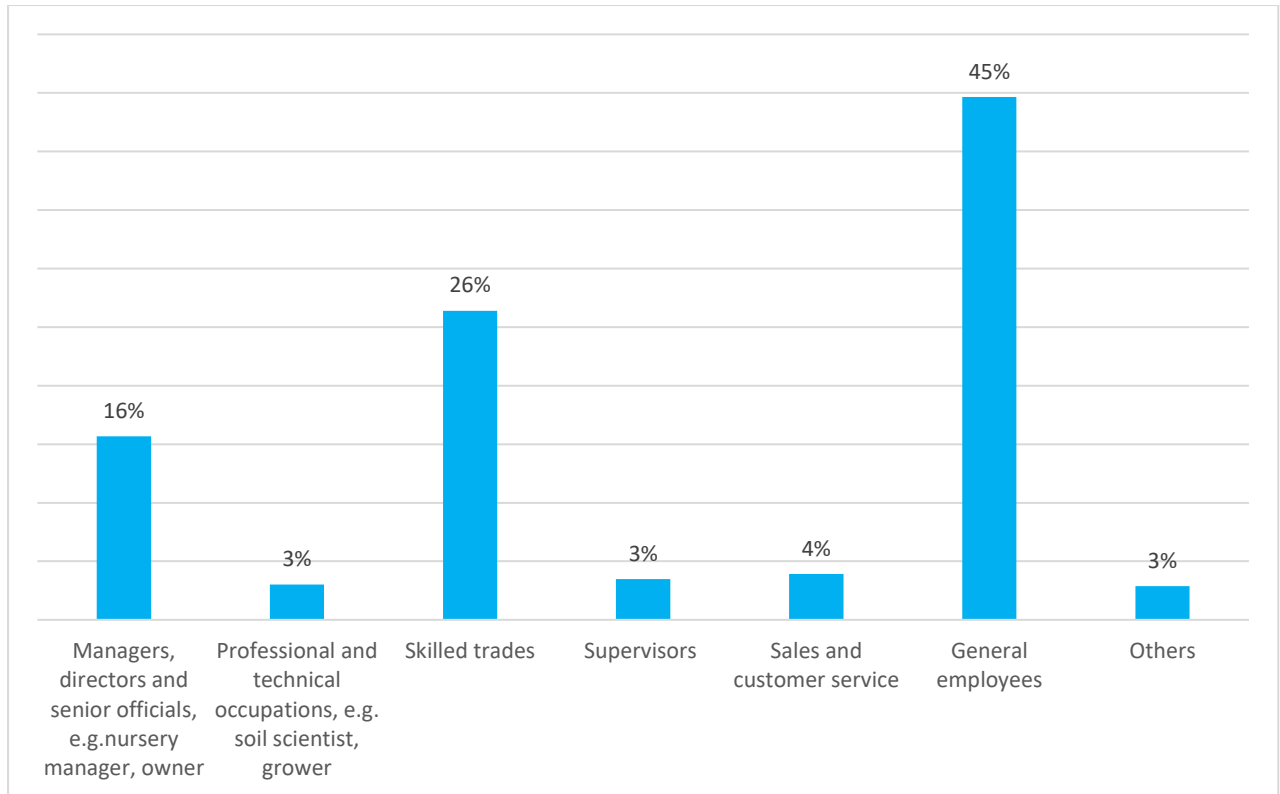
2.1.2 Workforce - Job roles (current and next two years)

Respondents were asked to provide estimates of their current and future numbers of staff including managerial roles, skilled trades or general employees whose work and jobs tasks could be associated with Ornamental Horticulture skills and knowledge. We asked about direct employment, but did not

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distinguish between seasonal, full-time and part-time staff. As can be seen from the figure below, the ornamental plant production sub-sector, employs a relatively high proportion of general employees (45%) and 26% in skilled trades. The relatively high proportion of managers (16%) may be attributed to the large number of micro and small businesses in the sector (combined 89%).

Figure 4: Current Workforce by job role

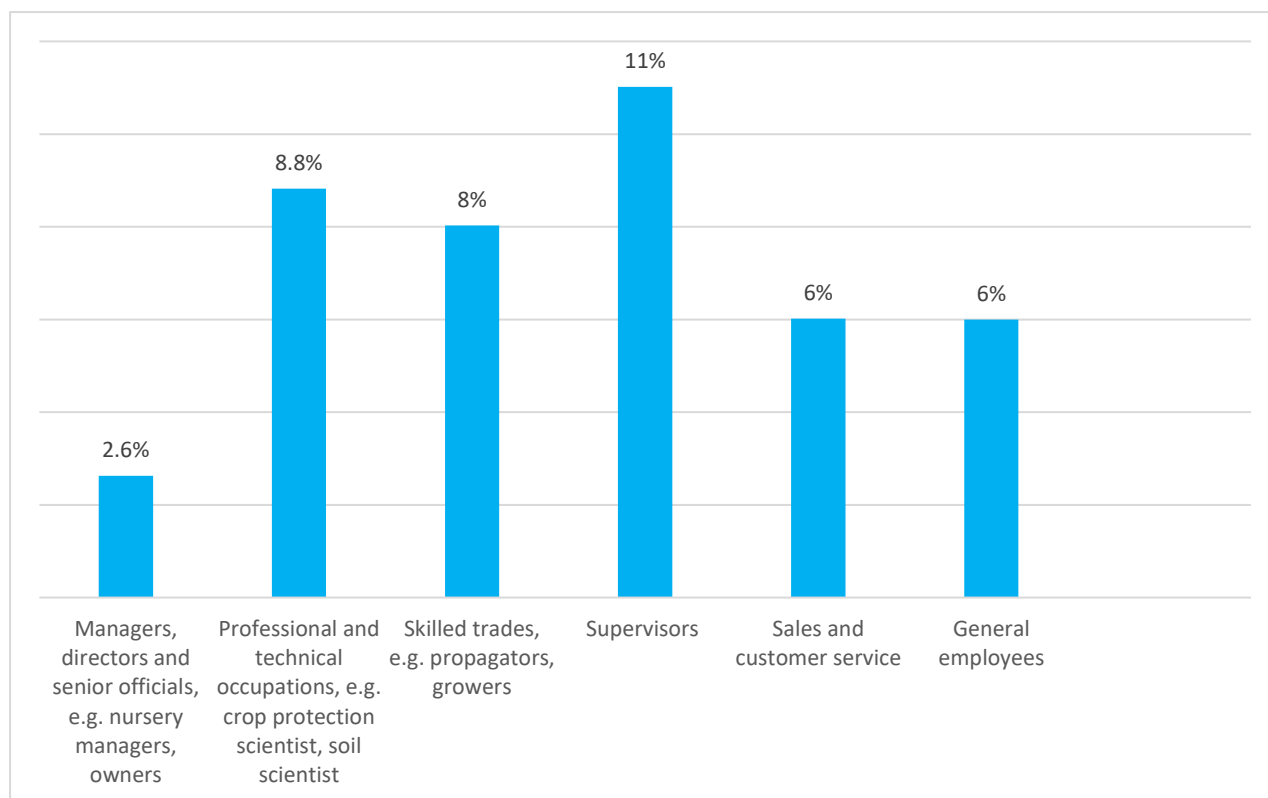


Base: 168 respondents; 3398 responses, multiple choice question

The 168 Ornamental Plant Production businesses confirmed employing a total of 3,394 staff, an average workforce per business of 20.3 employees (slightly lower than across the OH sector for which the average is around 25 employees).

In the next two years, Ornamental Plant Production businesses predict that average numbers in all staff groups will increase, albeit some of which will be modest. What stands out here is that the numbers of supervisors are anticipated to increase significantly by 11%, while professional and technical occupations are anticipated increasing by 8.8% and skilled trades by 8%. It should be noted, however, that 122 businesses did not report any increases or decreases in staff and that increases were therefore be concentrated in a small number of medium and large-sized businesses.

Figure 5: Predicted change in staff numbers



Base: 167 respondents, 207 responses, multiple choice question

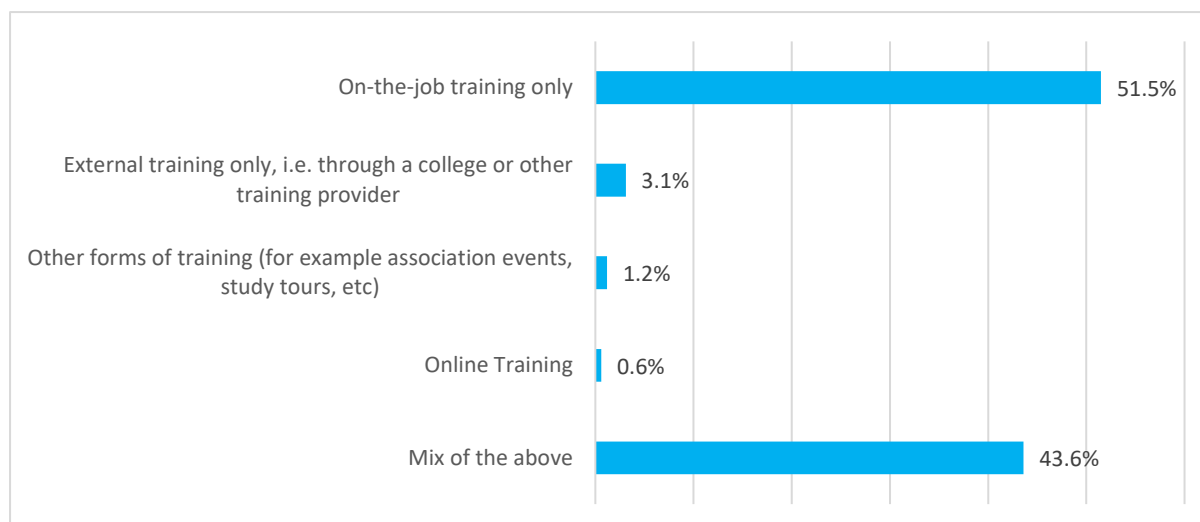
3. Training and Development

3.1 Training modes

We asked the sub-sector what they typically did when it comes to training.

The use of mixed training methods and on the job training is approximately 12% lower than the ornamental horticulture sector’s average, while the use of external training is approximately 15% higher.

Figure 6: Training modes



Base 163 respondents – single choice question

3.2 Specific training needs

According to the survey, identified horticulture training needs include grafting, propagation, growing, nursery skills, plant identification and biosecurity. In addition, respondents identified a scarcity of specialised horticulture training in general.

External Training

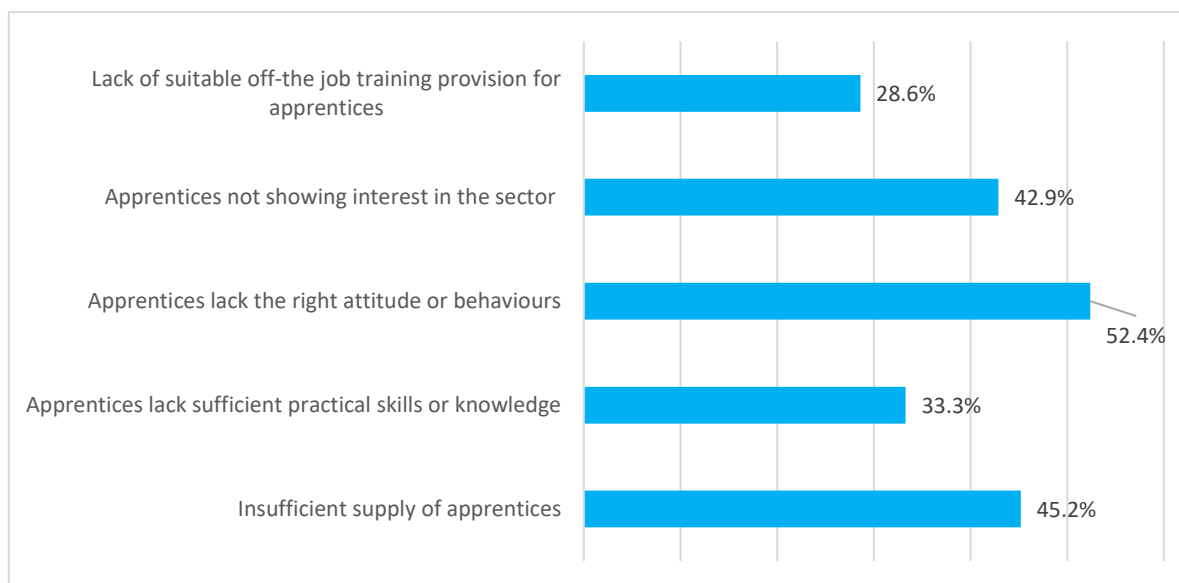
External training, as can be seen above, is not often used, this may be down to the lack of availability as mentioned or that they simply feel that it is not necessary. When asked separately about accessing funding to help with external training, however, a significant majority (63%) of Ornamental Plant Production businesses said that they do not do this, while 21.5% confirmed using funding “always” or at least “sometimes”. In this context, however, it should be highlighted that businesses may benefit from indirect funding for training and therefore may not need to apply for this. On the other hand, the low numbers of apprentices in the sector may be an additional reason for the relatively low use of external training related funding resources.

3.3. Apprenticeships and Trailblazers

Given the relatively low numbers of apprentices in the Ornamental Plant Production sector (see above), it is worth assessing relevant barriers for employers in recruiting apprentices.

Among these, a lack of the right attitude and a lack of interest in the Ornamental Plant Production profession feature as prominent reasons for not employing apprentices.

Figure 7: Barriers to recruiting apprentices



Base: 42 respondents- multiple-choice question

4. The skills challenge

4.1 Vacancies/Hard to Fill Vacancies

Respondents were asked how many vacancies they had had in each staff category over the last three years and how many of these still remained open. The average number of vacancies associated with each firm in the Ornamental Plant Production sector over the last three years was 4.8, based on 591 reported vacancies from 122 businesses. This represents a staff turnover (vacancies only) of just over 17% of the average staff numbers per company over the three-year period. In this context, however, it should be noted that not all of the reported vacancies reflect the creation of new jobs, but could also be related to staff replacements.

By comparison, the UK national average of vacancies (date) is 2.8 per 100 employees for the economy as a whole³. The sectors with the highest reported vacancy rate are information and communication (4.1 vacancies) and accommodation and food services (4.0). Here, it should be noted that the figure of 4.8 vacancies is based on the number of businesses reporting vacancies. When calculating the vacancy rate per 100 employees, based on the overall staff figure of 3,394 workers, the average number of vacancies rises to 6.1, thus being significantly higher than the UK national average in March 2019⁴. The table below breaks the number of vacancies per job role and indicates the job roles, where hard to fill vacancies are most prevalent.

³ Office for National Statistics (2019): *Jobs and vacancies in the UK: March 2019*

⁴ Office for National Statistics (2019): *Jobs and vacancies in the UK: March 2019*

Table 1: Hard to fill vacancies⁵

Job Role	Past 3 years (numbers)	Remain open (numbers)	% Remaining open
Managers/Directors	14	0	0
Professional/Technical	55	1	1.8
Skilled trades	146	27	18.5
Supervisors	8	0	0
Sales/Customer service	25	4	16
General employees	257	5	1.9
Others	51	5	9
Total	556	42	7.5

Base: 168 respondents; 556 responses, multiple choice question

The results provide a broad indication of which job roles are most difficult to fill at present. Leaving aside the unknowns in the “Other” category the proportion of vacancies remaining open is highest for skilled trades, sales/customer Service and general employees, though the average of vacancies (excluding “others”) for general employees is quite high (50.8%), while the number of vacancies remaining open is low. By comparison, 28.9% of vacancies (excluding “others”) are for skilled trades, but of these, 18.5% remain open. This indicates that the sector has been able to tackle the growing need for staff in the general employees’ category (potentially lower skilled and/or seasonal workers) but has faced challenges regarding recruitment in skilled trades. Nevertheless, this does not necessarily mean that the staff hired meet all the qualifications required.

4.2 Skills Scoring

As a key component of the skills survey, respondents from all sub-sectors were asked to score the current level of skills for a selection of job-role groups such as managers or skilled trades on a scale from 1-10 – where one is the lowest score and ten the highest.

Respondents were asked to assess the future importance of the skill from 1-10, with “5” meaning that the importance of the skill will stay the same.

These rankings were then analysed for this report using skills scoring methods. The following diagrams and tables show the results of the skills scoring exercise. Overall, each group (aligned to

⁵ It should be noted that the total number of vacancies (556) in Table 1 diverges from the 591 overall reported vacancies. This is because not all businesses were able to clearly identify the exact job roles for each vacancy.

different job role levels) of soft and technical skills is set to increase in importance, sometimes significantly.

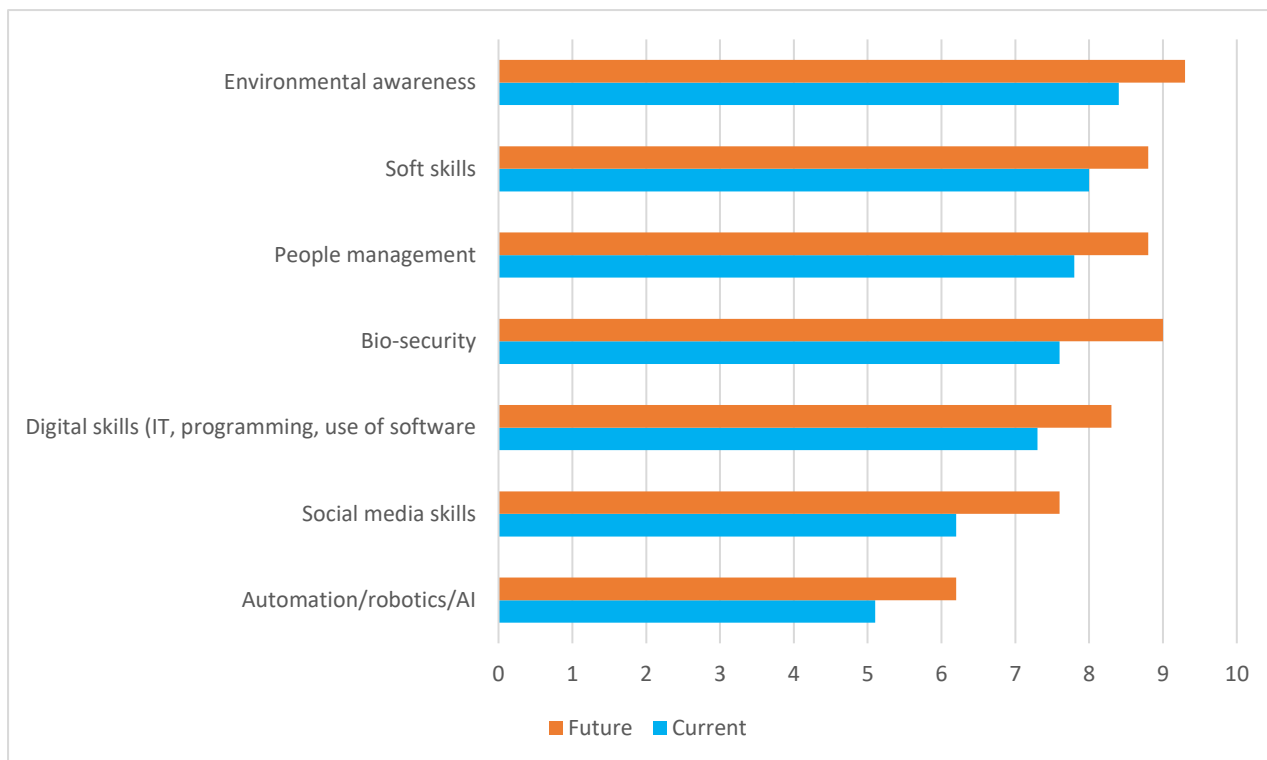
The results of both exercises, that is scoring of the current importance of skills and predictions of future importance in the next 3-5 years, were entirely based on employers' perceptions of both.

The staff categories surveyed included:

- (1) Directors, managers and senior officials,
- (2) Professional and technical occupations,
- (3) Skilled trades and
- (4) General employees

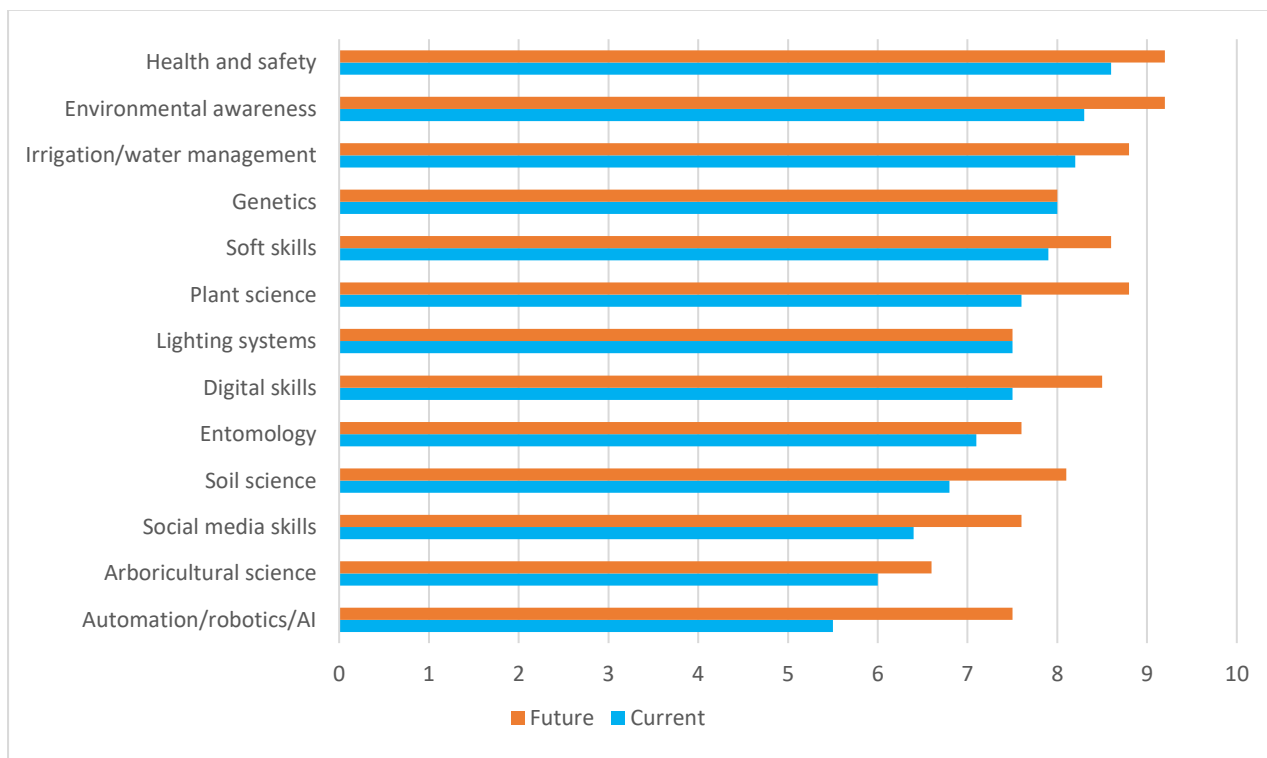
Thus, skills surveyed for scoring were not sub-divided by each ornamental horticulture sub-sector, but by staff category. Therefore, where appropriate, certain sets of skills not relevant to a particular sub-sector were removed in the following figures below (8 to 11) which show the current skill level in terms of how well these job roles perform these skills, the future equivalent importance of the skills surveyed and the change between current and future in percent terms. This is shown in the following charts for managers, professional and technical occupations, skilled trades and general employees. In this context, please note the term "general employees" was not further defined and could therefore include seasonal workers.

Figure 8: Current and predicted future importance of managerial level skills



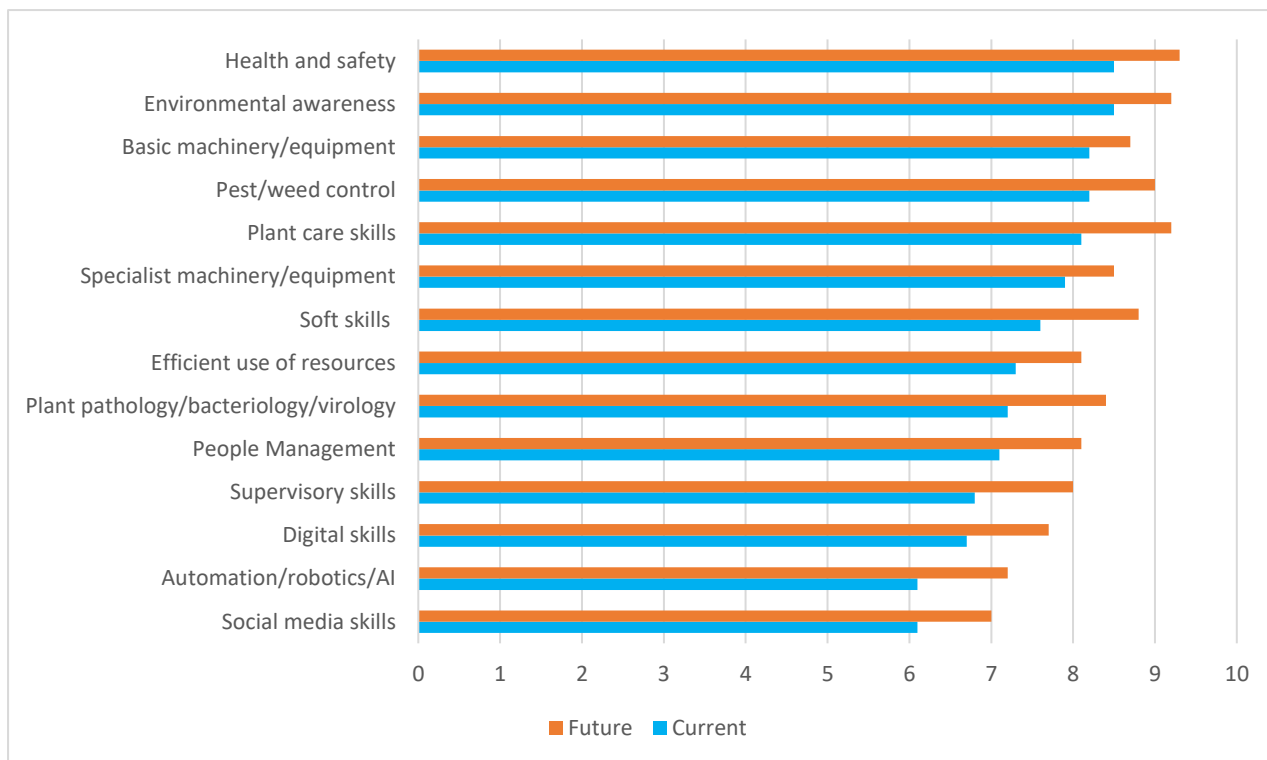
Base: 168 respondents, multiple responses, ranging from 43 to 1175

Figure 9: Current and predicted future importance of professionals and technical skills



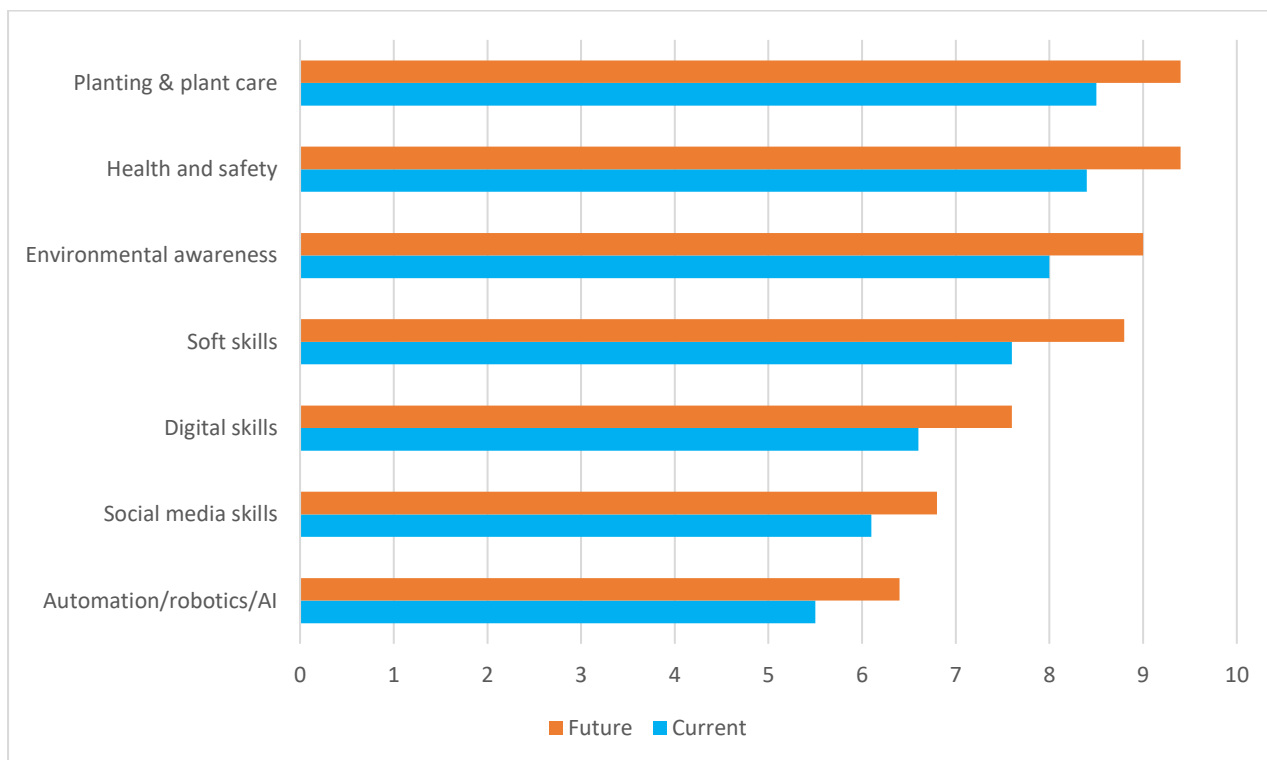
Base: 168 respondents, multiple responses, ranging from 43 to 1175

Figure 10 Current and predicted future importance of skilled trades skills



Base: 168 respondents, multiple responses, ranging from 43 to 1175

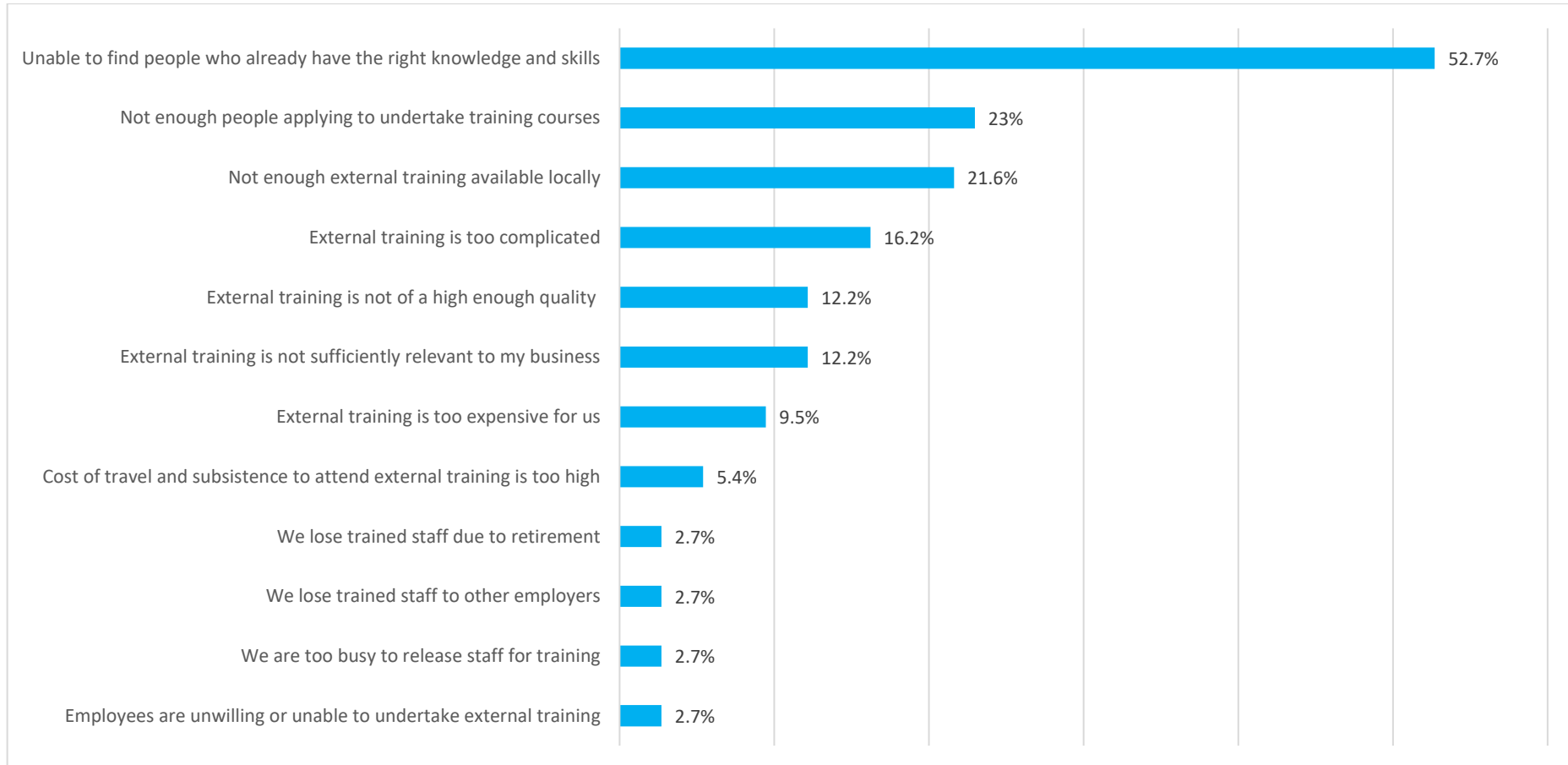
Figure 11: Current and predicted future importance of general employee skills



Base:168 respondents, multiple responses, ranging from 43 to 1175

4.3 Skills Gaps

Figure 12: Reasons for skill gaps



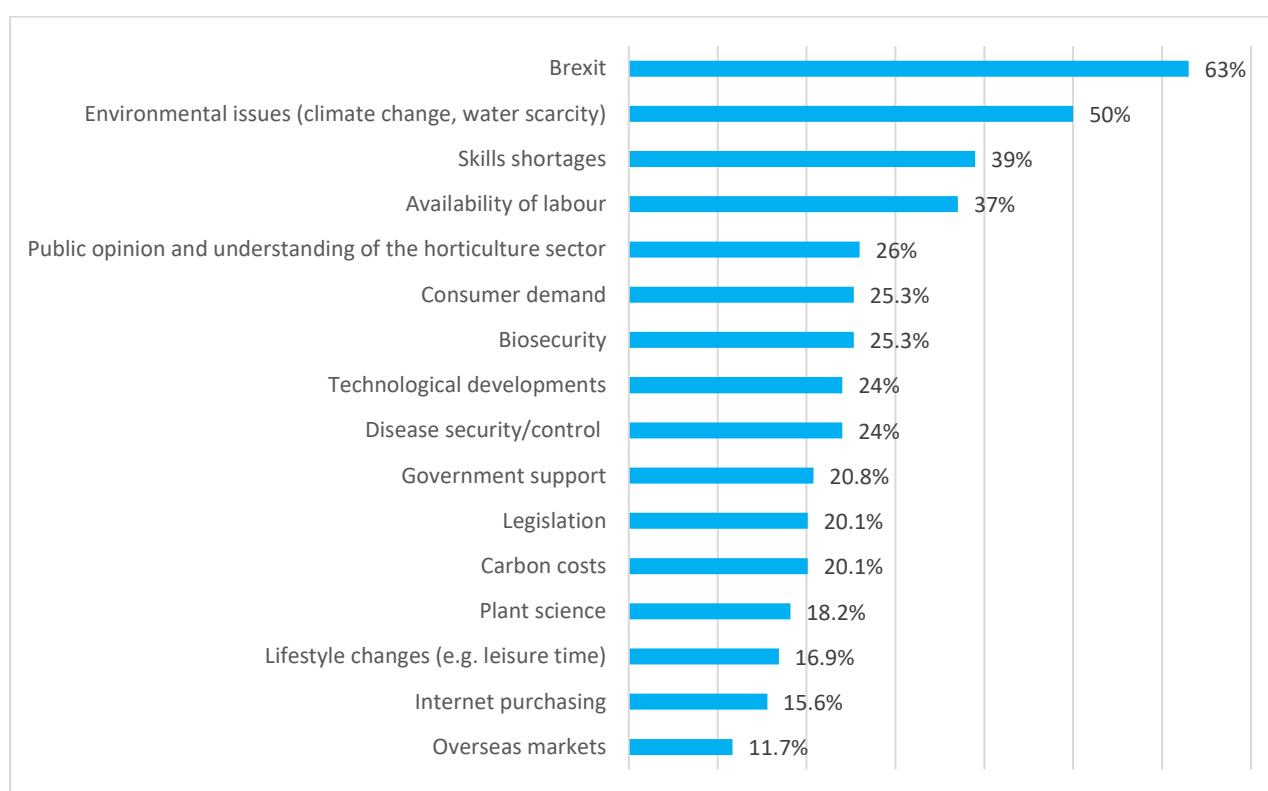
Base: 74 respondents; 121 responses, multiple choice; Examples of “other” include a lack of interest in the sector, workers not having the right attitudes and the need for training in social media and for propagators.

5. Drivers of future change

To provide information on their future outlook of the Ornamental Plant Production sector, businesses were asked to name the most important drivers of future change from their perspective.

Top of the table is Brexit, followed by Environmental issues and skills shortages. Brexit is of higher concern for the ornamental plant production sector, while for the entire ornamental horticulture sector, Brexit ranks in fourth place. On the other hand, environmental issues are a crucial concern for the entire sector, ranking first, closely followed by skills shortages, ranking second.

Figure 13: Drivers of future change



Base: 154 respondents, 673 responses

6. Conclusions and additional information relating to the ornamental plant production sector

According to NOMIS, the ornamental horticulture sector has over 32,000 businesses – largely as defined by the remit of the Ornamental Horticulture Roundtable Group.⁶ The Oxford Economics report (2018) estimates that the wider sector supports the employment of 335,200 people. The wider sector comprises just under 92% micro and small businesses but contributes near on £12bn to GDP (2017). An important sector that has wider impacts than is immediately perceived, and as the Oxford Economics report suggests, its full/wider economic contribution extends well beyond the estimates given in their and this report. The ornamental plant production sub-sector has around 630 businesses and supports the employment of 15,700 people, according to NOMIS and the same Oxford Economics report.

1. Skills and labour issues are of key concern for this sub-sector in the near to medium term. There are significant skills issues (skills gaps and shortages) which were highlighted by the sub-sector through the survey and workshops and which need to be addressed for both the sector as a whole and for this sub-sector. These skills challenges include:
 - Difficulties in recruitment of people with the right skills and/or attitudes 32% selected this as the top reason for skills gaps;
 - A relatively high proportion of vacancies in skilled trades remaining open after three years (18.5%) (see Table 1);
 - This is compounded by the fact that the number of jobs in skilled trades is set to increase by 7.4% (see figure 5);
 - An ageing full-time, part-time and trainee workforce;
 - A low average number of apprentices per business (0.7)
2. Twenty seven percent of businesses anticipated increases in staff numbers over the next two years. Of these, a high proportion are concentrated in a small number large and medium sized businesses. This was noted at a time when, due to there being almost full employment in the UK, there is a challenging labour pool for employers. Due to the need for skilled labour, just over 20% of hard to fill vacancies remain open for professional/technical and skilled trades. It is important to note that the 27% (current number of businesses anticipating increased in staff numbers) could easily become much higher in the short-medium term as skills deficiencies in the sector begin to bite further.
3. It is reported that recruits to the sector often lack basic practical skills – for example 33% selected this as a barrier to the recruitment of Apprentices. T-levels could help in guiding more young people into the sector, but 85% of businesses in the wider sector are virtually unaware of them. Perceived low wages/salaries in the sector, according to workshop participants and some surveyed businesses, exacerbates this recruitment and skills issue.

⁶ although it includes silviculture which is broader than the definition focussed on here for arboriculture.

4. The average age of workers (39.9 years) is slightly lower than the UK average (41.5 years). Nevertheless, there are strong perceptions among employers that the workforce is ageing (from workshop feedback and some survey open answers) and while this survey did not have questions permitting the necessary degree of disaggregation there are possible reasons why there may be a serious “ageing” problem including a low number of apprentices in the sector, the ageing of key job roles (managers, supervisors, technical staff etc.), and the effects of the physically demanding nature of work related to ornamental horticulture. There is a clear and pressing need for more detailed research into this matter.
5. Whilst staff turnover at approximately 17% over the last three years seems relatively moderate, this likely hides concerns experienced by businesses of a lack of skilled people and subsequent ‘make-do’ activities ~~such as a greater use of volunteers~~. The sector may need to undertake a gradual increasing use of flexible working as a result, to accommodate the growing atypical workforce structures being experienced⁷. The Taylor Review (2017) noted that *‘Full-time, permanent work remains the norm, but other ‘atypical’ arrangements are usually chosen and valued by the individuals concerned.’*
6. All skillsets which were queried in the survey are perceived by employers as increasing in importance over the next 3-5 years. Of focus are health and safety, environmental awareness, irrigation/water management, basic machinery/equipment as well as pest/weed control and planting/plant care.
7. The relatively low average number of apprentices in the sector and the cited perception of the low quality of apprentices in terms of professional behaviour and skills indicate that talent pipelines into the sector need to be improved. The survey indicates that the average number of apprentices in a business will stagnate at 0.7 over the next three years— bearing in mind margins of error. This also suggests that employers need help with understanding the apprentice model and the benefits to their business. The new Apprenticeship trailblazer standard is relatively new to the sector and the time-lag in this bedding in reinforces the need for great understanding.
8. The high use of in-house training and the lack of awareness of resources are additional indications (in addition to low apprenticeship applicant numbers) of a low take-up of “new” initiatives like Apprenticeship trailblazers.

⁷ Good Work, the Taylor Review, 2017