



Horticultural Sector Committee

Corrected oral evidence: The horticultural sector

Thursday 23 March 2023

11.35 am

Watch the meeting

Members present: Lord Redesdale (The Chair); The Earl of Arran; Baroness Buscombe; Baroness Fookes; Baroness Jones of Whitchurch; Lord Sahota; Baroness Walmsley; Lord Watson of Wyre Forest; Baroness Willis of Summertown.

Evidence Session No. 4

Heard in Public

Questions 54 - 68

Witnesses

I: Alex Payne, Chair, Landex; Tim Hughes, Head of Learning and Participation, Royal Botanic Gardens, Kew.

Examination of witnesses

Alex Payne and Tim Hughes.

- Q54 **The Chair:** Thank you very much for joining us today for this committee session. Can I ask you both to give a brief introduction of yourselves and the role you are undertaking?

Alex Payne: I am the chief exec of Landex, which is a membership organisation for 39 land-based colleges and universities nationally with a footprint of 15,000 hectares of educational provision. From a national perspective with Ofsted, which is our measure of quality DfE-wise, we are 97% good or better, so we are in a good new space. We have a good place to start in terms of the quality of what we are delivering.

Tim Hughes: I am the head of the School of Horticulture at the Royal Botanic Gardens, Kew. I manage all its professional training programmes, along with in-staff training for the garden staff. I have been there for eight years. Before that I was at the RHS for 14 years managing its training programmes, and before that I was with the National Trust, managing the National Trust careership in horticulture, so I have been in horticulture training for quite a while.

The Chair: Fantastic.

- Q55 **Lord Sahota:** What opportunities do horticultural careers provide jobseekers in the UK today?

Tim Hughes: There are some fantastic opportunities in the horticultural sector. I do not think that the breadth of the opportunities in the horticultural sector are known. I think that perception is an issue, which means that recruitment is more difficult in certain areas, but the opportunities are vast. The skills that horticulturalists have will be vital when we take into account what we are seeing with changes in climate, biodiversity loss and food. All those areas require skilled people to look after that. That is not just the big pictures, but health and well-being that people get from the green spaces in their towns, cities and villages.

Alex Payne: Exactly. I concur absolutely with what you say. There is a raft of career opportunities from entry level up to supervisory level. The thing that heartens me the most is to hear "careers" in the question rather than "jobs", because sometimes some of the work can be seen as quite reactionary and a just-in-time methodology for looking at careers, whereas my vision is that we need to be looking at 2030 and beyond. We are saying, certainly from the NFU and from the work that Defra has done on automation, that 2030 and beyond is about looking at where those seeds are being sown at the moment, where that high tech will come to fruition. It is about 2030 and beyond; the level 3 learners of next year and the year after. We need to be thinking, in exactly the same way as members talked earlier about workforce planning, about what knowledge, skills and behaviours will be required for that area.

The job opportunities are huge. We understand from the work the OHRG did in 2019 and 2022 that there are hard to fill roles at the supervisory level, but what will that look like in 2030 and beyond? The labour skills shortage with the seasonal workers is one end of the spectrum, and then there is the forward planning for 2030 and beyond and the higher-level skills. Both need to be addressed.

Lord Sahota: Is it true that most of the agriculture at universities in the UK tends to have “sons of the land” people who own the land or are farmers’ sons and so on and that most of them go there for the education, for a career in agriculture and so on, or do they come from every part of the society?

Alex Payne: If you look at agriculture and horticulture combined you will probably find that a lot of people have some kind of roots in farming, agriculture or horticulture, but that comes down to what we have been saying about visibility in schools. I feel very strongly that the real root of this, as was mentioned earlier, is the Unit for Future Skills and government. If we get on board with this and identify that food security is a national priority and therefore that agriculture and horticulture are a national priority—we know that green skills and net zero are a national priority—once those are there as a national priority, surely those national priority areas should be filtered down to our schools, careers advice and guidance in a very structured fashion.

Those areas will be specifically picked up in a very particular way, working with organisations such as Landex, TIAH and others to provide, along with industry, the structure of the information that young people should be receiving, because those are our national priority areas. If we can get that national priority picked up there, it will filter down to the local skills improvement plans and the money and the priority will filter down. That is part of the key.

The Chair: We cover the ornamental sector as well, so I hope that in some of the answers you could focus on the ornamental rather than just the agricultural.

Alex Payne: Absolutely.

Q56 **Baroness Willis of Summertown:** I think the point you make is spot on, because that is exactly the model that has been followed with computer sciences and IT. As a result, you are getting right down to the very bottom levels of the school teaching curriculum and it has become very effective. In universities, we now have to vastly increase places for computer sciences because it has come through, so it can work.

I need to go back to my question, otherwise I will sit here and just chat. I am going to take the word “career” again, and maybe, Tim, you might have a go at this. How attractive is the horticultural sector to jobseekers? I know from your own experience at Kew how many people apply for your places, but what is your feeling on this?

Tim Hughes: I think there is a perception problem. I have seen a difference in the reasons why the students we are getting at Kew want to come into horticulture. A lot of them now are saying that they initially went to a college and undertook a horticulture qualification and then applied to Kew because they are concerned about the environment. That has been coming through quite strongly over the last few years.

I think the horticulture industry as a whole attracting people, there is a perception issue. It does need a lot of work and it needs to start with trying to get knowledge, from schools onwards, about what horticulture is about and the breadth of opportunities that we have. It sounds to me that not much plant science is taught in schools anymore. My wife is a teacher, so I hear what is going on from that perspective.

When I was at school I did an O-level in rural studies, which was great because it opened your eyes to the rural sector and horticulture, but plant science is not taught at all, or very little, in schools. It would be a big step forward to have some horticultural subjects put into the school curriculum. From my point of view, that would be very useful. It would open kids' eyes to the potential of working with plants as a career, and we can build on that.

Alex Payne: I agree with a number of the points. There is work to do in this area. The publicity around horticulture recently has been about the lower-level entry skills and less about the higher level. We need to make it an active career choice. As we were discussing earlier, the STEM agenda is very important here because there is so much STEM in horticulture. It is how we can highlight that to increase how it is viewed.

There are some positives here. Landex has just commissioned research that we are just starting to go through now. The number of young people from 16 to 18 entering full-time horticulture courses has been at a pretty stable level from 2019 to 2022. We have not seen a fall. There has also been a big uptick in the numbers of those aged 19-plus, which is encouraging, and a big uptick in the numbers of apprenticeships.

We expected that as we moved over from the old frameworks to the new standards there might be a drop-off, but we are now seeing that increase again. Yes, there is work to do on how attractive it is and on modelling what that workforce looks like. There is some good news with the numbers that are physically coming through. They are holding their own in 19-plus and the apprenticeship area is increasing too.

Baroness Willis of Summertown: What would you do to increase the attractiveness of a career in horticulture? What are the small or big things you would do to turn it round?

Tim Hughes: I should clarify. Certainly at Kew we get lots of primary school groups coming and engaging with our staff about horticulture and plants. That drops off dramatically when it comes to secondary schools; we do not see so many. That is where we are losing the message. It is about showing the breadth. Sometimes TV programmes such as

gardening programmes do not help to give people the impression that it is a career that you can have. It is about showing the whole opportunities. Getting ambassadors/people into schools to talk about their careers would be a good idea. The careers service in schools seems to have dropped away a bit, which is a shame. Something along those lines might help.

Lord Sahota: I could be wrong and it is just a perception, but, talking about a career in horticulture or agriculture, do you get many from the minority communities coming into farming seeking a career? I could be wrong, but when I go and talk to people I do not think there are many.

Tim Hughes: People with ethnic minority backgrounds are not moving into horticulture as much as we would like. We are actively trying to encourage.

Lord Sahota: What is the reason?

Tim Hughes: That is a whole long debate on the reasons for that.

Baroness Jones of Whitchurch: If you have a further education qualification or even a degree in environmental science or something of that ilk and you wanted to work in the sector, where would you look for a job? I can imagine that you would have lots of people, because you are so well-known at Kew, but there are so many different organisations out there that will not be household names. Is there a platform? Where would you look? We heard earlier about graduate fairs. Do people turn up at graduate fairs and parade these jobs? I am interested to know how you would find the work.

Tim Hughes: You have identified an issue about where people who have no knowledge of the horticulture industry find out about it. Their local land-based college careers open day would be one way. The Chartered Institute of Horticulture has a careers page. Signposting the careers in horticulture is an area that needs work.

Alex Payne: With my other hat on, we have the National Land Based College and we are working closely with TIAH on this. We have a careers platform—it has been there a long time—and if you are looking for a level 2 in horticulture it brings up all the level 2 qualifications that are available, but I think your question is more about the job roles, potentially. There are a number of national publications and websites where you could find them, but not necessarily one centralised area. Would that be fair to say?

Tim Hughes: Yes, it is not easy.

Alex Payne: To go back to your question on diversity, it is less than 5%¹ and it is an area that colleges and universities are working hard on. What are the challenges? Rurality is a challenge. We are very lucky in the Landex membership that we are afforded 13,000 residential beds, but if

¹ Note from the witness: Diversity is less than 5% in the workplace (OHRG 2019)

you are not in one of the 13,000 residential beds, which are obviously to support the specialist provision, you have rurality issues in accessing that. We need, as part of this whole agenda of raising the profile and the career opportunities, to get out into all areas of society to show those opportunities, because they are accessible to all.

Q57 **Baroness Buscombe:** I am going to change my question a bit, because I think the question about demographics has to a large part been answered. First, you both ooze well-being. You are both a fantastic advertisement for going into this.

Alex Payne: Shall I start biting my nails?

Baroness Buscombe: No, it is terrific. I am still on a learning curve with this. I am very close to the equine world at heart. I know a lot of young men and women who go to college, but when they go they do not know what they will do; they have no idea. College then opens up a whole raft of possibilities, so there is a communication issue here somehow.

Tim, your world is so incredible that maybe some feel that somewhere like Kew is beyond their reach—I do not know—but maybe everyone should be made to read a book called *The Multifarious Mr Banks* at school, because that brings in the whole picture: the history, plant science, where everything comes from, the food we eat, the flowers we see and so on.

I have recently been back to my old primary school and every classroom has a picture of a tree or something, but it is lost in translation. Somehow people learn words like sustainability, environment, climate change. That does not necessarily translate to your world, which is incredibly practical with exciting opportunities. How does one break that loss in translation for people growing up? We are probably being repetitive here, but it is more about communication. Is there a role for us, in that sense, as well?

Alex Payne: You are absolutely right. From my perspective, the careers advice and guidance that young people get in those agriculture colleges and universities is very good because, as you said about opportunity, they are suddenly immersed in this world. They may come in and decide that they are going down one route and then go down another because the opportunity is presented to them every day in those 15,000 hectares of land and outstanding resource that are there to support that.

It is about the schools getting people to come in and, as you have identified, to ensure that it is not just people whose normal pathway it is, because that is what their parents and grandparents did. We are opening it up to a wider section of society. I firmly believe that that comes down to national priority. We are working to a national agenda. We need food security; we need to move towards net zero. These are the solutions to delivering on those issues and we need to get behind them. If we do, the national approach to careers advice and guidance should fall in behind.

Baroness Buscombe: Tim, in your world too it is not necessarily rural,

is it? Kew is just down the road.

Tim Hughes: That is right. In horticulture, we have definitely been seeing an increase of career changes coming into the industry. I guess they are seeing it as a change of lifestyle from probably a very busy career in a different industry, which is great because they are bringing different skills with them. I wonder how many want to stay at the grass-roots end for long and want to move back into a management position. It is the younger people we need to encourage in. That is where we are seeing the drop-off in the number of people.

Baroness Buscombe: You use, in the nicest possible way, some of your young people to inspire other young people. Those I meet in your world are very inspiring.

Tim Hughes: They are truly passionate about what they do. Yes, they have gone to schools, attended careers fairs and talked to people who might be thinking about a career in horticulture about what they do at Kew, which is exciting because we undertake a whole breadth of things. I think the younger people we have on the courses at Kew are acutely aware that there is an issue with bringing people into the industry, because there are plenty of jobs within the industry. We need to keep that going. They are more than willing to go to a school and talk about what they do.

When I worked with the RHS, a piece of work was done to find out what young people thought about horticulture in schools. One outcome was that the younger people in schools said that they were more interested in hearing from people nearer to their age who had gone into that industry talking about what they were doing than they were a TV celebrity or someone my age, which made perfect sense. because they can relate more easily to someone nearer their age. If the person nearer their age is talking about horticulture in the passionate way which certainly the Kew diploma students and the other apprentices we have do, that is inspiring to them, which is great.

Q58 **Lord Watson of Wyre Forest:** I feel I should put on the record that our previous witnesses also oozed well-being when they gave us evidence.

Tim, if I could come to you on skills, other than having the best job in the country, you mentioned that you did a rural studies O-level, which was part of your pathway into the industry. Can you reflect on the skills that you required to build your career back then and on the skills base required of young people entering the sector today?

Tim Hughes: I did not come from a horticulture background. My father was in the print industry. I almost thought about travelling that route but did not, luckily, because I have enjoyed my 43 years in horticulture. It is difficult when you are younger to think about what you want to do. I grew up in a small village in Somerset, so I grew up in a rural environment and rural studies was one of the O-levels that I undertook. I can remember thinking, "What shall I do as a career?" It is difficult. I enjoyed digging the bean trench at home for Dad to then plant the beans

and take the glory of the crops that he grew and things like that, so I decided to go into horticulture. My first job was in a local garden centre.

Lord Watson of Wyre Forest: What skills are you looking for today though?

Tim Hughes: What is important in horticulture is that mix of practical ability and academic knowledge. If I were to say to a student, "Can you go and scarify that lawn?" they would understand the process and undertake scarification of the lawn, but they would also understand why that process is undertaken. It is that combination of academic knowledge and practical training that is the best model for training.

Obviously I have been lucky in working for the National Trust careership, the RHS in its practical training and now Kew, where those models exist. I think the horticulture resources at colleges have seen a dip. Horticulture is an expensive industry as a qualification to run as a college because you need lots of resources. It is not like teaching computer skills, where you have a room with a few computers. You need grounds, you need plants, you need lots of resources, and they are expensive. We are seeing the practical input of teaching at colleges being whittled down.

Q59 **Lord Watson of Wyre Forest:** Alex, if I could move that on a bit, as the industry moves to focus more on automation, AI and digital, in the training environment are you looking for different skills at entry level, both students and workers?

Alex Payne: Obviously the qualifications that are delivered in a college environment are qualifications that are funded by government and draw down UCAS points or promote progression. There are a fixed number of qualifications that are designed by industry and are industry-led, because that is exactly what the Government's initiative is aimed at: the level 3 reform and reducing the number of those qualifications so they are industry-led.

What is interesting, as Janet mentioned, is that the wheels of churn turn quite slowly in developing those qualifications, skills, knowledge and behaviour, so the consultation position is here and X number of years later it gets rolled out here. So when we are discussing knowledge, skills and behaviours and thinking about the future, that is something that we could get better at. Some of the discussion is more about the just-in-time stuff—"I need this tomorrow"—than necessarily what we need the next day.

We heard the Hadlow example, but there are other examples of institutes of technology or agritech centres and horticulture investment that is taking place. I take the point that in some cases they have reduced that, but in others they have expanded it, and the numbers that are going into the sector gives some confidence there, but we need to have a mechanism. We have a review mechanism: the T-level will have a review, the apprenticeship standards have a review, and all those reviews have to be conducted by industry and industry-led, but we are in a sector

where we are dominated by micro and SMEs. It is very difficult to get people to come off the tools to come into an environment where you can feed in actively what knowledge, skills and behaviours you want for the future. That gets picked up and eventually comes into a qualification.

It is two things for me. First, in areas like this where we are dominated by micro and SMEs, we need to trust and rely on organisations such as TIAH and Landex, which have an overview, a membership and an understanding and take that into account instead of it having to be individuals. The individuals are important, but the overview is important.

It is also having a degree of flexibility, an agility, in the qualifications, so that those qualifications can, in an agile way, meet changing priorities. One advantage that is coming through currently is that members are working with their chambers of commerce for the local skills improvement plans and others, and as they are doing that a whole range of additional skills are coming out that they would like to see developed. We have a qualification that is 90% developed, so it will come out in additional work that they do that is not funded, or they will have to wait until the next thing. What if we had a percentage in all these qualifications that was funded to meet that regional need and to react to current agendas? I think that is an exciting space.

Q60 **Baroness Fookes:** Can I pursue this question of qualifications? If you were a student wondering what avenue to go up, it seems that you could go for an apprenticeship or go into a college. What are the benefits or disadvantages of these various ways of doing it, and how satisfied are you that the T-level qualifications are up and running? I get the impression that they are very much in their infancy.

Tim Hughes: I do not think T-levels have been launched yet for horticulture. We are keen to see it in order to help out by becoming a work provider at Kew, so I am interested to see that. My understanding, if I am correct, is that it has not been launched into schools yet.

Baroness Fookes: Who is doing the launching?

Alex Payne: DfE and IfATE are launching. They were due to have the whole agricultural land production management T-levels launched in 2023. One arm of it has been delayed, but that does not impact the discussion today. They will be launched in September 2023. They consist of a core pathway followed by a common core, which will see horticulture, crop production, and trees and woodlands in a common core element, and then you will move on to your occupational specialism. That could be ornamental and environmental horticulture and landscaping, or it could be crop production, which includes containers.

That T-level has a strong aspiration, as do the Government's priorities, to be industry-led and work-based with a large industry placement. The providers have worked hard to develop that capacity to allow that to happen. These things are seldom perfect first time around. It is industry-led. There is no way you can stand back and say that this qualification

has been designed somewhere. The whole point of this is that it has had to have industry feedback into it, but all these things need to be constantly reviewed and its content and priorities will need to be reviewed moving forward.

Ultimately, yes, you can go into a college and start off at level 1, which is sort of below GCSE level. You can start off at level 2 in horticulture and then you progress on to your level 3, which could be your T-level now, but ultimately sitting alongside that there is an apprenticeship arm. That apprenticeship arm is seeing a lot of growth there. This is across different sectors, young people deciding that being out in the workplace is of real benefit. It is about developing and having those apprenticeships.

Those new standards have come on board. That is level 2, GCSE level, and then there is level 3, which is more of your supervisor level, right the way up to level 5 and ultimately level 6. That is your second and third year of your degree programme level. There is a raft of provision there, both in apprenticeships and in full-time study, as well as part-time offers around the RHS and others.

Q61 **Baroness Fookes:** If you were an ambitious student looking perhaps to gain degree qualification, is that made clear if you go with either of these two routes, or is that cut off?

Alex Payne: Absolutely not. I am keen—to get on to another bandwagon: other reforms—that in any reform that we do in the educational space, young people need to be given the opportunity to change their minds, jump off and move sideways, because people do not decide at 16 that this is categorically what they want to do. They need to be given the opportunity to do that, and we need to ensure that it is as transferable as possible. Absolutely some of the discussions going on are about going down the apprenticeship route, the A-levels route, the full-time route, and that is it. Let us try to be a bit more flexible on that.

Baroness Fookes: If you have an apprenticeship with Rolls-Royce, you are on to a good thing, are you not?

Alex Payne: Absolutely.

Baroness Fookes: I want to see whether that could be opened up to students wondering what to do.

Tim Hughes: There are apprenticeships in horticulture. With the new trailblazers, I looked at the figures yesterday and there are just under 900 students involved in horticulture.

Baroness Fookes: Will the more specialist qualifications that are offered by Kew and I think by the RHS, where you were before, be separate from or absorbed into these new arrangements that we are talking about, the T-levels? I am not quite sure how it all works.

Tim Hughes: It is different.

Baroness Fookes: I rather guessed that.

Tim Hughes: We have our own qualifications, although we do run the trailblazer apprenticeship. Before that we ran our own apprenticeship, but we now follow the trailblazer apprenticeship and we add things to it.

The RHS in-house training programmes were its own qualifications, but because the RHS is an organisation that is also an awarding body, it could not have them together, so it had to decide to turn its in-house training programmes to follow the national training programme qualification. We are not an awarding body so our qualifications sit on the brand and reputation of Kew.

Q62 **Baroness Willis of Summertown:** A quick follow-on from that. When we were at the Horticultural Trade Association, we talked to people from the National Trust there who said that the problem with the apprenticeship scheme was that you have match fund it. Some of the properties had that match funding and that was fine, but you do come to a problem with the funding of the apprenticeship scheme.

Tim Hughes: There is a levy, so if you are an organisation of a certain size you are paying a levy into that. Kew pays a levy, a substantial amount of money, but we can then bring back some of that funding that pays for the college training that our apprentices do on day release.

Baroness Willis of Summertown: My question is whether that becomes, particularly for some of these smaller properties or smaller gardens—

Tim Hughes: The training is fine, because they can get that paid. What is not paid for them is the salary of the apprentice.

Baroness Willis of Summertown: The point I was making is they do not then run the apprenticeship because they cannot give any wage. From your perspective—and also Alex's—have you come across this?

Alex Payne: We are seeing increased uptake of apprenticeships by taking on board exactly what you are saying. As we know, it is dominated by micro and SMEs but having an apprentice does seem to be a route that more people are taking. There is some positive news as well as the sustained uptick on 19-plus.

Baroness Willis of Summertown: One of the questions is whether or not we should be saying those apprentices should be fully funded rather than 50% because that is where the problem comes in.

Alex Payne: I am always going to get on board with increased funding. You have won me over there. Funding is a tricky one. A lot of the apprenticeship standards are currently going through review and as a result of that review the funding gets looked at as well. I do have some concerns around some of the methodology that is being used and we are keeping a close eye on that.

With funding per se for further education, it is well publicised at the moment that there are challenges in further education. I have to say we have extremely good relationships with DfE and ESFA and have benefited from the recognition that these qualifications do take more to run, by virtue of their specialist resource: the 365-day nature, the high staff-student ratio, health and safety and so on. Governments have recognised that consistently and weighted it appropriately. You could argue though that if qualifications are weighted at one point, a programme cost weighting, as the cost of living and costs go up, that chasm widens potentially. It is certainly recognised by government.

Tim Hughes: You are right, the smaller firm might struggle. It might want to have an apprentice but not be able to afford the salary, so that is a barrier. Though the levy will pay for that apprentice, it does not cover the—

Baroness Buscombe: Just quickly, regarding gardens and people who are apprenticed to work in gardens, we do have a lot of gardens across the whole of the UK that charge an entry fee. If one looks across to see how many people are visiting their gardens, in some instances it is a huge amount. There must be an income there as well for quite a lot of those gardens that open to the public to support the apprenticeships.

Tim Hughes: Sure, there are many schemes out there. The Professional Gardeners' Guild has its own traineeship. The Historic and Botanic Garden Training programme has its own traineeship as well. The National Trust too is bringing that back, which will be great. Obviously, there is the RHS and Kew—so there are a number of organisations that are doing that.

Q63 **Baroness Walmsley:** I will dig a little further into your assessment of the careers advice that young people are getting at a very early stage and whether you think it is good enough or broad enough. I reflect back to how lucky I was to be able to do A-level botany at school. You cannot do that now. I went on to do botany as a career, my early career anyway.

It occurs to me that a young person would need to know that they are interested in that. I did it because I liked it, not because I knew there was a job in it. They are not going to go to the British Association of Landscape Industries or the Chartered Institute of Horticulture for information until they know that they are interested in that sector. In particular, I would like to know whether you think the careers advice is broad enough. Does it differentiate between fieldwork and packaging and processing of food, for example? What about all the equipment that can be used nowadays in automation, technology and maintenance and the use of that sort of equipment? Are young people being made aware of the importance? Decades ago I realised that plants were going to save the planet. Do young people get that now?

Tim Hughes: Yes, you are right, without plants there is no life. It is very important. Again, a younger person would not know to look on those websites to find careers.

Baroness Walmsley: It depends on the schools, does it not?

Tim Hughes: At Kew we have a whole department that looks after schools and runs school trips and integrates what horticulture does, what Kew does as a botanic garden and engages with many school groups that come around, which is fantastic. Like I said earlier, they are mainly primary; in secondary very few come through. Primary is great, you can engage with youngsters on horticulture, but the secondary school is where it lacks. That is where we need to focus because that is when people start thinking about a career. They are not thinking about a career as a primary school child, they are just enjoying what they are doing, they are enjoying being at Kew or wherever it might be, whatever garden. It is the secondary school where we need to target. We need to allow them to understand that it is not just about weeding outside in the cold. There is a huge range of horticultural jobs out there, professions within the horticulture sector.

That needs some expertise in the schools or something to deliver that information. There is a school in Ridlington where one of the teachers is very keen on orchids and they have embraced horticulture and the growing of orchids. Those students are gaining some great knowledge there, but that is because of that teacher's interest. If you do have a teacher that is interested in horticulture then they can enthuse on that and talk about it, but if they do not, there is no one there who can do that.

Baroness Walmsley: What can the organisations that you represent, Alex, do?

Alex Payne: You are absolutely right, there needs to be a broad overview. Let us face it, careers advice and guidance have a tough job to do. There are a lot of jobs out there and we want ours to be at the forefront, of course we do, but they have a broad remit. What can we do there? Many of the members that we have—or all the members that we have—work extremely hard with their local schools to ensure that they get out there as much as possible. Many of the colleges invite those local schools in and they go into those schools to provide seminars and so on. There are examples where that works very well. There are examples where the doors are not opened and it is much harder for those colleges and providers to get in there. That is absolutely true.

In the research that we have done, it is interesting. When you look at the sphere of influence of those 39 colleges, it is the ones with the benefit of the residential spaces we can recruit on a national basis: where they are able to get into those schools around them, that is where you get the sphere of influence pulling from a local perspective and from those surrounding towns and cities. That is the point that we can break down some of these demographic areas as well to increase the inclusion. Otherwise it is more difficult.

In my mind, it is about ensuring that it recognises a national skills priority and that it is a national area for investment. With that, it should be mandated therefore that it is within careers advice. Surely the areas that

are a national priority should absolutely be spearheaded within our schools careers advice and guidance.

- Q64 **Baroness Buscombe:** Just a thought: 50% of all adults are gardeners, I think I am right in saying. My love of gardening and horticulture came from my parents. Schools of course have a critical role to play, college or whatever, but should we be thinking a bit more too about the role of parents and therefore the way that you, as representatives of the sector, communicate and to whom you communicate? Many people have the RHS information and so on, but if they are not a member of the RHS there must be other ways. Tim, you said that television is not always helpful. Maybe a different kind of television would be more helpful. Parents have a massive role to play in this, do they not?

Tim Hughes: Yes.

Alex Payne: It is interesting. Some of these are small ideas. We all have small ideas to try to have an impact. Currently we have a scheme with a partner where we are going to be rolling out videos to schools with all the links to the careers and how to find further links to the providers in there. It is being aspirational about the careers that are out there, because if you are giving careers advice and guidance in the school, you may not feel confident or an expert in that, but it is very easy to turn on a video that has been produced by experts with the links on the end so they can access that. It is tiny—I am not trying to say it is the answer to everything—but it is one example.

Another example is that within the membership we are developing a virtual farm. It is a virtual online farm, an escape room, aimed primarily at level 3, but ultimately there is real potential to roll it out into schools as well. You would go into the virtual farm, you would go down to the glasshouse and you would, through virtue of an escape room, fill out puzzles, interact with videos and things and get a certificate or what have you at the end. It is a start. It is a start at piquing interest and in having that sustainability environmental arm to it. It is not an answer to everything, but these are examples of potential starting points that might have an impact in some instances.

I would not like you to think there are not great ideas out there of ways in which it can be done: there are, but they are not going to change the world. A national priority, careers advice and guidance, going down to the local skills improvement plans, is where we need to be: the national agenda.

Tim Hughes: It is also about seeing horticulture not as a nice hobby for parents but as a profession. That is a difficult hurdle to jump. It is an interesting question.

Baroness Buscombe: How you communicate with parents, with carers and so on to imbue that sense of something special.

Tim Hughes: If you look at the craft level, the skill level, that parent who is keen on their garden, if their heating boiler broke down they

would pay a lot of money for somebody of a similar craft level to come in and fix that, but if a shrub dies in the garden they are not that worried about it. The perception of the skills base is very different.

- Q65 **The Chair:** Unfortunately we have jumped one of the questions. Perhaps I could come back and ask a question for the committee. How can we ensure qualifications remain up to date with sustainability requirements and technology developments?

Tim Hughes: Industry engagement is very important in developing any qualifications. Personally I believe that horticulture qualifications should start off and have a good foundation. Wanting people to specialise very early on is not beneficial. There needs to be a foundation of knowledge first and then you build on that. Industry involvement is very important.

Alex Payne: We know the reform that is coming is all industry-led, which is a great start. We need it to happen regularly and we need to ensure when we are consulting with industry that we are encouraging ourselves not to look at today's problems but to look at tomorrow's and 2030 and beyond, because that is how we need to be educating our young people and inspiring them with the knowledge, skills and behaviours to set them up ready. That STEM piece is all about showcasing to the young person's influencers that this is a career of choice with ambitious opportunities there.

- Q66 **Baroness Jones of Whitchurch:** Tim, this question is aimed at you. I want to explore the funding of R&D. We heard evidence before about the potential for rapid change in the sector and how the science is moving forward, how the technology is moving forward at a fast pace, but also that we are being overtaken by other countries who are doing it quicker and faster and reaping the rewards of all that.

It is a career in its own right of doing research and development, not just in university, but you could take it forward into a permanent career. What do you think about the funding for the institutions that would make that happen? Listening to you both today and looking at the briefings that we have received, it is a complicated sector for where that research might happen. It is not just at university; it is at specialist research institutes or commercial organisations where you can do a lot of that research and development. What do you think about the funding? Do you think that UKRI and the government streams of funding are recognising the potential in your sector? Is it going to the right organisations?

Tim Hughes: That is a difficult question for me to answer because I am not quite in that area. Certainly Kew works with over 100 different countries on a lot of different scientific projects. There are 40 to 50 different plant scientists working on things like coffee, which is a popular one with climate change. The current cultivars and the species that we use will not cope with climate change, so they are identifying new species that will and will also give us a decent cup of coffee. Those things are happening all the time and there is money to do that research. I am not involved in that so I would not be able to answer it in detail.

Baroness Jones of Whitchurch: Presumably even at Kew you have specialist scientists who are not raking the grass or whatever you described earlier but are doing some very forward-thinking science about how plants can tackle dry climates.

Tim Hughes: Absolutely, but I do not have any knowledge of how the funding works on that.

Alex Payne: OHRG and RHS have a strong positioning on this and they feel there could be more funding in that area. The only bit that I would add to that, my bandwagon, is that we have 15,000 hectares of educational land here plus state of the art facilities in terms of classrooms, teachers and all the rest of it. There is fantastic stuff going on, on automation and research and genetics and all the rest of it. When it comes to the rolling out of that and encouraging adoption across the country, utilise that network of colleges to be places that do small base projects that not only inspire the young people who are within those institutions so they can see the forward-thinking technology, but also on one Saturday in the year invite all the local farmers and growers to that area to see that being implemented, being adopted and working. What a great impact you could have in one go. That is something that Northern Ireland does well. One of our members is CAFRE and the way it does that with adoption of technology is something that is worth looking at. There is real opportunity with the rollout and adoption of technology as well within the sector.

Baroness Jones of Whitchurch: Do you do research on your land?

Alex Payne: There will be member colleges that will be doing research because some of them are universities. They vary hugely. You will have demonstrator farms, which are far smaller because they are potentially in a less rural area, and then you will have huge farms with uplands and lowlands, elements of them and university elements, and we will be doing research. There is more work certainly that could be done, but I believe that all of that network could be involved in the adoption and the rollout to support the sector.

Do not think that is not something I bang the drum about. We have a good relationship with Defra and that is something we are actively working on with its farming innovation programme, to look at ways in which the network could be involved in that.

Q67 **Lord Watson of Wyre Forest:** We have taken evidence from the ornamental sector that, for example, a third of London's landscape is back gardens and therefore we gardeners have a role in Britain's sustainable future. Tim, do you do any research or collaboration with the industry that might advise on putting different kinds of plants in a garden to try to achieve that, or is that a bit of a stretch from the work you do?

Tim Hughes: Last summer when we had that very hot period we noticed lots of plants had suffered through that. We have predicted climate change and are actively looking at plants that will be able to cope with

what the prediction is. There is a lot of work taking place on that. That is worldwide. There is a lot of research in Australia that we have been looking at and we are building a database on plants and their climate resistance.

Lord Watson of Wyre Forest: How about plants that could take more carbon out of the atmosphere and put it back into the ground?

Tim Hughes: Yes, big studies in Wakehurst on that, not only on the soil but the plants and how much carbon capture there is for that. There is currently a study going on with that. It is very important work.

Q68 **The Chair:** We are down to the last two minutes and it is my question to ask. If there is one thing you want in the report, now is your chance to say.

Alex Payne: You probably picked up from me that it is not just one thing, it is part of a bigger thing. We have made good inroads and the Prime Minister has made some commitments around food security, so let us bring that into action. We are only producing 58% at the moment at the farm gate. We need to increase that, so if that is a priority we will start to get the investment. If it is a national priority, we can pick it up. Then we have our environmental net-zero priorities, we have our green skills priorities—we are working closely with the ONS on green skills—and horticulture must be recognised as part of those green skills. We are needed in order to deliver the Government's ambitions.

If that becomes an absolute said and done, then as a result of that everything will flow out; the careers advice and guidance will flow out, and the local skills improvement plan. It will be there consistently, it will be a priority, the funding will flow through and the delivery methodology will be there with the fantastic resource, obviously from my perspective, with the land-based colleges and universities that we have. Let us get them invested in it and make sure that we have the local skills improvement priorities there to support them.

Tim Hughes: A coherent and planned approach across horticulture to raise its profile and attract people into education and into the industry, because they are vitally needed. There are jobs within horticulture, there are some great jobs within horticulture and we need that skills base when we look at what is happening with climate change and biodiversity.

The Chair: You have finished on 12.30, which is exactly what was needed. Thank you very much for giving evidence to the committee and this is the end of the committee.