

Skills and training demand study

for the “Local Food: National Skills” project

Report
August 2012

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Summary and recommendations

'Local Food: National Skills' training demand study, 2012

1. 'Local food' represents around 2% of all food sales in Scotland and has a growth rate of 20-30% a year. The market for 'local food' has approximately doubled in value in the past 4 years, and is likely to do so again in the next 4.
2. Two thirds of existing local food businesses want to expand, and they need new skilled staff to do so. In addition, there are around 50% more businesses would like to enter the local food market and establish a new business. These new entrants are either primary producers diversifying into selling their own produce, or specialist small growers and processors starting entirely new businesses.
3. There is a skills shortage in local food staff of around 320 new staff, each year for the next 4 years, in order to meet market demand
4. Amongst existing staff there is skills gap that requires around 250 staff to gain new skills, each year for the next 4 years, to meet market demand.
5. The skills shortage identified is not going to be filled through current provision of courses at Fe and HE level. There is scope to meet some of the shortage – maybe 20 to 25% - by teaching existing courses within local food businesses, and by adding new units in relevant skill areas.
6. The existing short courses provision would fill only 5% of the skills gap for existing staff, and in less than 10% of the topics required.

Recommendation 1:

A national roll-out of the previously piloted 'Local Food Apprenticeship' is required to fill the local food skill gap. This should aim to supply around:

- 100 new staff achieving full skills package training each year
- 150 existing staff achieving one or more new skills units each year

7. Technical skills required are, about equally, in horticultural production (salads, field production, polytunnel production, soft fruit, top fruit) and in simply processed foods (butchery, bakery, dairy, drinks, fish and ready-to-eat foods)

Recommendation 2:

A new training program for simply processed food should be developed, to complement the horticultural course already piloted.

8. There a need for marketing and small business management skills amongst local food staff, as most are micro businesses and sell direct to their consumers.

Recommendation 3:

All participants should gain marketing and small business skills, alongside technical production skills, using a common course for both horticultural and processed food producers.

9. Production and sales of local food takes place mostly in rural areas at present. Almost all areas are under-supplied in local produce: the under-supply is greatest in and around Scotland's seven cities.

Recommendation 4:

Entry to training should be enabled for urban based food businesses, as well as rural ones; and to social enterprises as well as private businesses.

10. The recruitment of younger 'new blood' to train and work within local food businesses is a particular need for existing businesses.

Recommendation 5:

Priority should be given to younger (under 25 years of age) trainees, placed within existing businesses, as well as to all ages starting new local food businesses

11. There is a wide geographic spread of businesses interested in participating in training to gain local food production and business/marketing skills.
12. Over 30 existing producers are willing to act as tutors of new businesses.
13. On-line learning combined with on-site practical teaching, plus access to an experienced mentor, are the preferred learning methods.
14. There are different growing and market conditions in different parts of the country, and participants are willing to travel 60-100 miles to training venues.

Recommendation 6:

Delivery of training should be structured around a combination of 2 day practical sessions and on-line learning. Teaching and mentor support should be provided by experienced producers trained as tutors, working in real businesses; backed up by professional input from industry experts and Scottish Rural University College. Training can be grouped into North and South Scotland clusters.

15. Most local food businesses are micro businesses, with over 90% having 10 or fewer staff. 50% of local food operators are self-employed. Many are time restricted to train for long periods.

Recommendation 7:

Training should be made available both for staff within producer businesses, and for start-up self-employed businesses. The course should be made available over 1 year full time, or 2 years part time.

16. Around 40% of potential trainees would like to work toward a recognised qualification – particularly amongst younger, employed workers. The level of interest in a receiving a VQ increases for older and self-employed workers, once they participate in the training.
17. There are a mix of level 2, 3 and 4 skills in local food production. There is no single qualification that recognises the wide range of technical and business/marketing skills required

Recommendation 8:

A vocational qualification framework and assessment system should be designed, to recognise the variety of skills and skills levels. Active business people should be used as assessors, backed up by college verification and standard setting.

18. Investment in expanding the skilled labour pool for local food production in Scotland is justified on the basis of continued expansion of local product sales (doubling in the next 4 years) and the small size of local food producing businesses (90% are micro businesses with 10 staff or less)
19. Around three quarters of interested businesses would be willing to pay 25% of course costs. Additional bursary or other funding may be needed to enable access for younger participants training within local food businesses.

Recommendation 9:

Seek support from SRDP, Skills Development Scotland, and other funders to support the costs of training delivery over the next 4 years . Based on participants paying 25% of costs. Higher intervention rates may be appropriate to target younger, urban and social enterprise participants.

1 Background

'Local food' in Scotland is generally applied to fresh and simply processed food from suppliers who:

- Grow or process their own food products
- retail at least some of their products direct to consumers
- sell at least part of their product within their own locality
- are mostly smaller businesses
- work to high quality, production and welfare standards.

'Local food' includes many organic certified and 'artisan' products. But local food is not exclusively organic, and businesses often use the latest methods and technology, both in production and in marketing.

The range and availability of 'local food' available in different parts of Scotland varies greatly. The focus is mainly on fresh products – root vegetables; salads; soft fruit; fresh meat; fish; shellfish; milk. And simply processed products – bread; cheese; jam; charcuterie. The basics of a fresh and seasonal diet.

There is no definitive database of 'local food' producers and retail points, and no reliable measure of turnover. Small producers working together is common, with a national network – Nourish Scotland CIC. Network events have identified a lack of skilled workers as a barrier to expand existing businesses, and to starting new businesses. With only limited access to a haphazard range of skills training.

In 2007, members of one of these groups - Highlands and Islands Local Food Network – developed a Local Food Apprenticeship training program to fill the supply and skills gap. With help from LANTRA, they delivered:

- a 44 day training package covering both production and marketing
- trained 11 of their producers as tutors, plus industry experts
- delivered all training within their own businesses plus case studies
- developed 11 training modules and 1100 pages of training materials
- received accreditation from LANTRA for a customised award.

Out of 27 participants in Highland over 2 years, there were 24 completers who achieved the LANTRA award. Of these, 17 are now in business selling their own local food products and others have joined existing suppliers, enabling them to expand their production and product range.

The "Local Food: National Skills" project was commissioned to:

- identify the skills needed for the local food sector to grow in Scotland
- developing a new training package for entrant food growers and producers in Scotland, to be called the "New Farmer program", based on the Highland local food skills training model, to make it accessible throughout Scotland
- Embed the program within the Scotland Food and Drink strategy, and the land based colleges and skills accreditation systems.

The project steering group comprises LANTRA, Elmwood College, Nourish Scotland, SAC and Skills Development Scotland. The project is identified within the Food and Drink Skills Investment Plan, launched at the Royal Highland Show in June 2012

The first phase of the project includes producing a demand study on the training needs of the local food sector in Scotland, and likely demand for the training package over the next 4 years. The study findings will be used to shape the training package for local food producers and seek funds to delivery the program.

2 **Key questions**

This demand study looks at three main areas:

Skills needs in the 'local food' sector in Scotland: a broad brush analysis of the wider skills needs for the local food sector:

- What are the demand trends for locally produced and marketed food in Scotland?
- How is this demand being met?
- What market opportunities exist to expand the sector?
- What skills needs do small businesses have to meet these opportunities? What is the scope and scale of likely training provision needed to enable this market sector to expand?

Likely demand for the New Farmer Program:

What is the likely level of demand for the New Farmer Program over the next 4 years?

- The range of units likely to be taken?
- The profile and location of likely participants?
- Detail on potential participants existing experience; their training needs; how far they can travel to access training, and to what extent they are likely to take up online access?
- Which topics are high, medium and low priority for our target audience?
- Their ability to pay for the course?

How are local food skills needs being met at the moment? Mapping of existing courses, training and support currently available to local food businesses and their staff. Including:

- Current training provision from the 3 land based colleges and SAC
- Short courses from industry groups such as Scotland Food and Drink; Soil Association; FCFCS and others
- Is there potential overlap of duplication with the content of the New Farmer Program?
- What is the 'gap' that needs to be filled?

3 Main findings

3.1 Skills needs in the 'local food' sector in Scotland?

A broad brush analysis of the wider skills needs for the local food sector:

What are the demand trends for locally produced and marketed food in Scotland?

- Consumer demand for 'local food' in Scotland is rising - around 75% of consumers prefer local products, and 13% of consumers were buying specifically local foods each week in 2005, rising to 27% in 2009
- The market growth for local foods has been sustained even through the recent recession.
- Local food and Fairtrade products are the two main growth areas of domestic food demand growth - at the same time, organic produce has peaked and declined slightly; and animal welfare and environment friendly products have plateaued
- Scottish consumers are highly motivated to support and use local producers and local retailers - this and freshness are their primary motivations for buying; and this motivation to support the producer is much higher than among consumers elsewhere in the UK
- The main barrier to consumers buying more local food is lack of availability, and a regular place to buy (they would like weekly rather than monthly markets, for instance)
- There is no collected figure for current consumption of local food in Scotland - and this is in itself a barrier to planned development
- The 'guestimated' market share from several industry experts is around 2% of all food sales in Scotland, with a growth rate of 20-30% a year. The market for 'local food' has approximately doubled in value in the past 4 years, and is likely to do so again in the next 4.

How is this demand being met?

'Local food' producers are a subset of the much wider land based sector in Scotland. With similar profile in many ways to the wider industry:

- Mostly micro businesses – 10% are sole operators; 60% have one staff member working for them; 20% have 2 to 20 employees, and 10% have more than 20 staff
- Two thirds of business operators are self employed, and a third employed.
- A more normal age distribution than most farms – around half of all local food business operators are aged 26-55; and about 40% are 55+
- There are very few recruits under 26 years old - and this is felt to be a real weakness by existing business operators who need 'young blood' to help expand their enterprise

Around one in 20 actively trading local food businesses are social enterprises, the other 95% are private businesses.

Local food businesses use a wide range of market routes to reach their customers:

- The most used routes to market at present are farmer and community markets; chefs and hotels; gate sales and supplying small retailers
- The market routes for expansion in future are farm shops; supplying small retailers; chefs and hotels, and Community Supported Agriculture – and these are the areas where producers say they need new skills to expand

- Around half of all producers are members of a local marketing group or initiative, of which there are many in different parts of Scotland – they can may run markets for their members, or just provide contact and information.

There are significant barriers to expansion for local food businesses, in addition to skills shortages and gaps, and these include:

- lack of suitably skilled staff is a major barrier to growing the existing local food businesses – there is no pool of experienced personnel from which to recruit; there is no clear ‘route-in’ or career progression for staff; and good staff often wish to move on and start their own, similar, business.
- Rising energy costs and other input costs are squeezing profitability and productivity
- Lack of confidence in their abilities – for instance in marketing their produce effectively, and in dealing with regulations around food processing
- Poor access to essential infrastructure – for instance abattoirs nearby that can take smaller numbers of animals
- Access to suitable land is a barrier to expansion for around 20% of existing local food businesses.
- New entrants face a much more significant barrier to accessing land suitable for starting a new local food production business; and find it very difficult to get banks to lend to start-up local food businesses.

What market opportunities exist to expand the sector?

- The market for specifically local food in Scotland has approximately doubled in value in the past 4 years, and seems likely do so again in the next 4
- The rate of sector growth is constrained mainly on the supply side, and consumer demand remains largely unmet – with many consumers frustrated by the lack of regular access to good local food.
- the rate of growth could be increased significantly by interventions to strengthen skills; improve access to infrastructure and enable lending to businesses
- Access to local food has grown thru the use of box schemes, gate sales and farmers markets by ‘early adopters’, but these do not appear to be the likely route to continuing expansion and wider consumer access. The maturing of the market and its transition into a more mainstream customer, coupled with the decline of the High Street and the dominance of multiple retailers of food in Scotland, points toward expansion of access more likely to be in small retail shops, Community Supported Agriculture, public procurement and locally based group marketing of produce
- Eating local food is still a largely rural phenomenon in Scotland – the distribution of farmers markets, producer groups, and respondents to this survey is heavily skewed away from urban areas. Individual producers are able to penetrate their own rural marketplace, but not the cities or larger towns, ad this pattern looks likely to persist, in the absence of intervention. The lead on expanding urban access to local food is unlikely to come form rural producers, and other routes and leaders to local food growth need to be found if the market is to increase significantly in urban centres.

What skills needs do small businesses have to meet these opportunities?

- 65% of existing local food operators want to expand their business
- Around 50% more businesses would like to enter the local food market and establish a new business

- There is a predominance of lamb, egg and vegetable production among existing local food producers
- The majority of existing producers could expand their supply of existing products and add new ones, given access to suitable skills training and support – for instance in soft fruit, top fruit and herbs
- Around half would like to diversify into new products – such as red meat butchery; preserves; drinks and ready-to-eat foods like ready meals and sauces
- A few existing producers have the ability to expand into new areas of primary production, and then process for supply – for instance in beef, chicken and honey – they would need significant training and support to do so.
- The expansion of existing local food products to meet growing market demand can not be met thru expanding existing businesses. A combination of expanding existing business output; bringing other primary producers into local food supply, and a significant number of new entrants is required – the latter groups will have greater and broader skill needs
- Expanding the product offer of local foods – for instance into beef, dairy, chicken, pork, fish and bakery – requires training an almost entirely new cohort of skilled processors and marketers. The range of businesses and skills to serve this segment of the market do not currently exist.
- Around half of all existing producers say they need new skills to carry out essential marketing actions - such as attracting customers; setting prices and researching their market
- Around a quarter of existing producers say they need improved skills to run their business - such as budgeting and finance for their business
- The businesses trend to focus on the practical and production skills required to make a consumer-ready product, and under-estimate the business and marketing skills needed to sell it legally and make a profit
- New farmers – be they existing primary producers who diversify into local food , or entirely new entrants to food production, will have greater need of basic business and marketing skills than existing operators.
- Businesses are currently dependant on skilled workers, but skills are gained more on-the-job skills than thru academic attainment
- Qualifications are seen as useful recognition but not the main way of selecting staff or driving skills acquisition within the sector.

What is the scope and scale of likely training provision needed to enable this market sector to expand?

There are both skill shortages - the absence of sufficient, appropriately qualified and experienced people to undertake particular roles when employers seek them, even if other factors such as recruitment methods and rates of pay are appropriate. And skill gaps - within an existing workforce where individual employees lack the requisite skills to undertake the full range of duties in their job.

The likely skills shortage (number of new staff required each year to meet demand expectation) can be estimated at:

Expansion of 20% a year, based on 2% of total land employment = 270 new staff
 Plus replacements, at 4% of current workforce = 50 new staff per year

Annual skills shortage of new staff = c 320 per year

The likely skills gap (number of new staff who need to add skills each year) can be estimated at:

Annual cohort of existing staff requiring new production skills = 175 existing staff per year (50% of local food workforce of 1400 (2%LBS), spread over 4 years)

Annual cohort of existing staff requiring new business and marketing skills= 80 existing staff per year (25% of local food workforce of 1400 (2%LBS), spread over 4 years)

Annual Skills gap within existing staff = c 250 per year

3.2 Likely demand for the New Farmer Program:

What is the likely level of demand for the New Farmer Program over the next 4 years?

Of the 80 local food businesses polled, 40% said they definitely wanted to join a long term training program in local food production and business/marketing skills. 50% are interested, and will join in if it is suitable. 10% are unlikely to join in.

To expand the sector in line with demand, then the total annual skills requirement for local food in Scotland is 400 newly trained staff per year for 4 years.

If 40% of existing businesses take up training thru the program, then there may be around 150 of them, and the remainder are in farms or farmers new to local food production, each year. About two thirds of these as full time employee-learners and a third as business owners adding new skills part time.

Overall, around two thirds of local food businesses are looking for develop new or enhanced horticultural technical skills; and one third for simply processed food production skills. However, this split probably reflect existing business products more than future entrant businesses. Over half of all respondents also say they need business and marketing skills, in addition to new technical skills.

On the teaching side, over 20 existing producers have put themselves forward as potential tutors. With a further 12 willing to act as hosts for apprentices, assessors, case studies or mentors.

The range of units likely to be taken?

The proportion of existing businesses that need new skills amongst current – for **filling the skills gap** - are approximately (based on business responses):

- 20% of existing staff need new skills in simply processed foods – spread fairly evenly across butchery and charcuterie; milk processing and cheese making; bakery; prepared foods and meals, and other products
- 20% existing staff need new skills in horticultural products – with less needing new skills in potatoes, root veg and brassicas; and more needing additional skills in salads, soft fruit, top fruit and herbs
- 40% existing staff need new skills in marketing their produce – across all skills including setting process, attracting customers, supervising staff and researching demand
- 30% existing staff need new skills in running the business – across all skills from book keeping and budgeting, to staff supervision and teaching others to manage parts of the business.

For satisfying the skills shortage of new staff required to grow the local food sector is more difficult to estimate, as very few potential businesses have responded as the opportunity does not currently exist to train them. Market trends point toward opportunities being focused on:

- More fruit and veg – usually the starting point for consumers seeking freshness
- More local meat – especially butchered beef, and new sources of free range chicken and pork
- Local dairy – both artisan cheeses, and micro dairy wet milk supplies direct from farm
- Bakery – particularly in areas without an existing high street baker
- Drinks – fresh and pasteurised fruit juices and smoothies; and micro breweries
- Fish – particularly fresh availability of pelagic fish, from local catch and landings
- Ready meals and ingredients – especially for urban , time-poor consumers.

New entrants will be made up of a mix of both existing primary producers who are new to local food processing and marketing – for instance a beef suckler, family run farm, deciding to finish some of their own stock, and butcher and sell it – who have some of the technical skills required. And entirely new producers - many of whom have existing relevant experience in small business operation or food processing.

The profile and location of likely participants?

The demand for skills appears to be widely distributed across Scotland.

Existing local food businesses are more likely to be rurally based, in areas such as Highland, Stirlingshire, Perthshire, and Dumfries; or on islands, where the availability of fresh food from off island is more constrained. However, the demand centres for more local food are generally urban – particularly in or around Scotland's 6 cities; and in medium sized market towns across the country.

To meet the expressed demand fro new skills, any training program would need to accessible to farms and small food businesses anywhere in Scotland.

Detail on potential participants existing experience; their training needs; how far they can travel to access training, and to what extent they are likely to take up online access?

Two distinct groups of participants can be identified, toward whom training in the skills identified should be tailored:

- full time employees within an existing or new business
 - mainly aged 18 to 26
 - need to learn a full skills set, including both technical and business/marketing
 - want to learn full time and receive a wage whilst doing so
 - interested in a VQ to recognise their skills
 - may move to another employer or start their own business, and take their skills with them

- owner/operators wanting to start a new food businesses or expand their existing business
 - mainly aged 26 to 55
 - need to gain technical skills suited to their products; and a manager level of business/ marketing
 - want to learn part time and don't expect to be paid whilst doing so
 - less interested in VQ to recognise their skills
 - unlikely to move to another employer, but may move into different food categories or market routes

The preferred delivery methods for learning local food skills are (most popular first):

- On-line learning and assignments
- Site based practical training events
- Case studies of businesses and market routes, including visiting them
- Back up support by keeping in contact with other learners and with an experienced mentor.

Potential participants are willing to travel to training events – with the vast majority willing to travel 60-100 miles to get to site based training or case study meetings. Connecting the events to public transport is key for some, and longer stays of 2 or 3 days suit those traveling furthest, especially from islands.

Based on this, possible focal areas for delivery can be described based on distance, growing conditions and travel links:

- North – around the Moray Firth and serving islands, Highlands, Inverness and Aberdeen
- East – around Angus, Fife and Lothian and serving Tayside, Fife, Borders, Edinburgh, Stirling and Dundee
- West - around Ayrshire and serving Dumfries and Galloway, Ayrshire and Glasgow

Their ability to pay for the course?

The full one year training program (or two year part time), including both technical and business/marketing elements, is likely to cost in the order of £2500-2800 to deliver, per candidate.

If the full costs are charged, then none of the business or new entrant candidates say they are bale to afford to do the course. If the course is subsidised at 50% of cost, then only a quarter of currently interested candidates say they could afford to attend. If the cost was subsidised at 75% - with a cost of £700 to the candidate – then around 60% could afford to attend. This level of charging would be similar to the pilot project fees and participation rate.

If the fees are set around £700 or 25% of costs, then there would remain a significant minority who could not afford to take the full course. Those unable to afford to pay are mostly people who would enter whilst training on placement within an existing business, rather than independent new entrants running their own business. As it is the younger new workers within existing businesses who are most needed, and more

difficult to recruit, this may make getting new staff more difficult. Options to overcome this barrier could be either for the employer business to pay the fee, or for fully funded places to be made available to younger, employed candidates.

The ability to pay for shorter, one or two day units, as stand alone training is more flexible. A quarter of businesses say they would be willing to pay the entire cost of a short course – so long as it is exactly what they need and convenient for them. And if the costs is subsidised at 75% - or around £40 a day or £80 for a 2 day unit – then three quarters of existing businesses would be able to afford to send their staff.

3.3 How are local food skills needs being they met at the moment?

Mapping of existing courses, training and support currently available to local food businesses and their staff.

Current training provision from the land based colleges?

There are three main training options currently available within Scottish higher education institutions, with the potential to fill the skills shortage for new staff. They are:

- Mixed farming – available at SVQ 3; HND and degree levels
- Horticulture – available at RHS 2; SVQ 2 and 3; and HND and degree level
- Organic farming – available at Postgraduate diploma and MSc level

The first two options are available full time only, and tend to attract younger people post school and pre-employment. The third option tends is available part time over 2 years, and tends to attract mature students already working in the sector.

The mixed farming option provides a useful route in for potential farm workers, but is mainly taken up by students with links to existing family farm businesses. It carries little or no horticulture, or simply processed foods. They also do not deal with direct marketing of fresh produce.

The horticulture option as it currently exists is mostly delivered for amenity horticulture and not production horticulture, with a focus on parks and gardens or plant and garden centres as the outcome, rather than food and direct retail.

The organic farming option includes some food horticulture at field scale, and some product marketing, generally at commodity scale. The course is only accessible to graduates with at least 2 years relevant experience.

In summary, the existing course offer has some limited potential to meet the skills shortage – at farm worker and organic manager levels. There is no existing higher education course that meets the need for food horticulture, simply processed foods or direct retail skills needed to fill the local food skills shortage.

The skills shortage identified is not going to be filled through current provision of courses at HE level. There is scope to meet some of the shortage – maybe 20 to 25% - by teaching existing courses within local food businesses, and by adding new units in relevant skill areas.

There remains a significant and wide ranging training deficit to fill the skills shortage for new staff and new entrants into local food production and marketing.

Short courses from industry groups such as Scotland Food and Drink; Soil Association; FCFCGS and others ?

Occasional 1 to 5 day courses of use to local food businesses are available in Scotland, mostly from producer groups such as Quality Meat Scotland, Soil Association and Scottish Crofting Federation.

Courses run within the past 2 years include:

- Entry level crofting course
- Tractor driving and maintenance
- Practical butchery
- Soil analysis and carbon minimisation
- Carcass grading
- Farm shops 'planning to succeed'
- Hygiene certificates

These courses are often organised in response to the specific needs and demand from members, or as a result of a larger project programme. Their availability is often not well known and numbers are limited. They tend to be rather haphazard in when and where they occur. None have regular funding streams to support them beyond March 2014.

Overall, the courses provided are mostly in specific technical skills: courses do not generally look at direct food marketing or business management, and organisers report that demand for these topics is low. The courses are very limited in number and in accessibility. The courses are mostly 'one offs'. And not part of a more structured learning programme. They usually have no follow-up or support after the training day. They are generally not aimed at new entrants – with the exception being the 10 evening course class for entrant crofters.

In England, Soil Association run an Organic Apprenticeship course for new entrant farm workers on organic farms. The course lasts 2 years and includes 8 two day taught units on a wide range of topics, ranging from soils and machinery use, to animal enterprises and produce marketing. The course has run for 4 years, and costs £1800 over 2 years, self funded. Apprentices work on a placement farm whilst studying. A vocational qualification award is not used and there is no state funding.

The Organic Apprenticeships are only taught in England – although one student has studied from Scotland and traveled south for training sessions. Soil Association has no plans to extend the scheme to Scotland and would be willing to encourage its members to work with the New Farmer Program to fill the gap in coverage.

Overall, current short course provision goes some way toward meeting the skills gap identified for existing local food businesses – maybe 10-15% of what is needed. There are significant subject gaps, and no structure or follow-up to

ensure learning is effective. The availability and continuity of course supply is also unreliable.

There remains a significant training deficit to fill the local food skills gap for existing and new entrant businesses and staff.

Is there potential overlap of duplication with the content of the New Farmer Program?

Some overlap of units within HE courses does exist, but the overlap is small and the numbers are low. For instance, the mixed farming courses identified do cover livestock production, but not processing or marketing. Generally the full time courses available have less than a 10% overlap – or in other words, if a local food producer attended them they would spend 90% of the time studying non-relevant topics. The post graduate diploma in Organic Farming has some useful elements, but has no practical skills content.

On shorter courses, QMS run a 3 day butchery course for lamb or pork, that could be used as a template for wider use. And the Soil Association Organic Apprenticeship are only available in England.

Generally, the overlap of the New Farmer Program with existing provision would be very small.

What is the 'gap' that needs to be filled?

Analysis of existing provision shows that there remains a very significant gap in existing training provision that still needs to be filled. In broad terms, maybe 10% of the expected demand for new local food production staff could be filled by existing full time course. And then, only with some re-focusing of existing courses and additional top-up training.

The existing short courses provision would fill only 5% of the skills gap for existing staff, and in less than 10% of the topics required.

There remains a wide ranging training need that is unfilled. If the local food sector is to develop in line with the market demand potential, and achieve a doubling of turnover in the next 4 years, then it has a skilled labour requirement of:

- 320 skilled new staff each year
- 250 existing staff attain new skills each year

In all expanding markets, new staff and skills are gained in different ways. Learning 'on-the-job'; poaching staff from existing businesses and running industry led training programs; and in-house retraining, are all routes that will fulfill some of the gap. Not all the skills gap for local food, needs or can be met by the New Farmer Program. A reasonable target – used for instance in the expanding renewable energy sector - would be to set up an industry led program to train 30% of all new entrants; and 60% of all existing staff. At these ratios, for local food, the skills provision would amount to:

- 100 new staff achieve full skills package training each year
- 150 existing staff achieve one or more new skills each year

In addition, new local food skills provision fits well (with the recent Oxford Economics study) with future skills requirement for land based sector in Scotland. Not only in meeting the needs in the growth area of local food: but also in the mode of delivery. In particular, using a training practice based on:

- On-line study
- Business embedded within production teaching
- Level 3 provision
- Flexible access
- Led by industry demand rather than student demand
- Serving under provided areas (NE and NW)
- Validation based on skills needed rather than pre-existing qualification structures.

4 Recommendations

Recommendation 1:

A national roll-out of the previously piloted 'Local Food Apprenticeship' is required to fill the local food skill gap. This should aim to supply around:

- *100 new staff achieving full skills package training each year*
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A new training program for simply processed food should be developed, to complement the horticultural course already piloted.

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All participants should gain marketing and small business skills, alongside technical production skills, using a common course for both horticultural and processed food producers.

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Entry to training should be enabled for urban based food businesses, as well as rural ones; and to social enterprises as well as private businesses.

Recommendation 5:

Priority should be given to younger (under 25 years) trainees, placed within existing businesses, as well as to all ages starting new local food businesses

Recommendation 6:

Delivery of training should be structured around a combination of 2 day practical sessions and on-line learning. Teaching and mentor support should be provided by experienced producers trained as tutors, working in real businesses; backed up by professional input from industry experts and Scottish Rural University College. Training can be grouped into North and South Scotland clusters.

Recommendation 7:

Training should be made available both for staff within producer businesses, and for start-up self-employed businesses. The course should be made available over 1 year full time, or 2 years part time.

Recommendation 8:

A vocational qualification framework and assessment system should be designed, to recognise the variety of skills and skills levels. Active business people should be used as assessors, backed up by college verification and standard setting.

Recommendation 9:

Seek support from SRDP, Skills Development Scotland, and other funders to support the costs of training delivery over the next 4 years. Based on participants paying 25% of costs. Higher intervention rates may be appropriate to target younger, urban and social enterprise participants.

5 Methodology

The demand study was conducted in 3 stages:

Stage 1 – a desk study of the market and policy setting for local food in Scotland.

This drew on recent research reports and data from:

- IDG Shopper trends 2006 to 2010
- SAC Marketing team – Scottish market trends
- Oxford Economics, May 2011 – “Scotland’s land based colleges skills requirement forecasting”
- Skills Development Scotland, June 2012 – “Skills Investment Plan for Scotland’s Food and Drink Sector”
- LANTRA
- Review of pilot training program ‘Local Food Apprenticeship Horticulture, 2007-9. Highlands and Islands Local Food Network.
- Scotland’s skills strategy, Scottish Government, 2011

Stage 2 - a survey of existing local food businesses in Scotland, to seek their views on:

- Ability to expand their local food business
- Skills needed by existing staff to enable business expansion
- Requirement for new skilled workers to enable business expansion
- Detail on technical skills needed
- Detail on business management and marketing skills needed
- Interest in receiving training to fill their skills needs
- Interest in acting as host or tutor
- Ability to pay for courses.

Overall, the sample size is good. The questionnaire went out to just over 200 local food businesses in June 2012, through the Nourish Scotland membership. Responses were received from 83 – around a 40% response rate. The sample represents just under 10% of all the local food businesses currently operating in Scotland.

The views of urban based and processed food producers are likely to be under-represented in the survey, due to the sample bias of respondent businesses. The survey also under-represents the skills needs and interest in training from people wishing to gain employment in local food businesses, but not currently working in the sector. It is much more difficult to assess the needs of potential workers.

The skills requirement for new staff not currently working in the sector therefore requires additional extrapolation, based on business expansion projections. Such extrapolation comes with a ‘health warning’, as it is based on assumptions about future market trends and business expansion rates, which are influenced by factors other than training availability.

Stage 3 – a review of existing training provision in relevant skills, accessible in Scotland. Based on information from LANTRA, SAC, Oatridge, Barony and Elmwood Colleges’ Soil Association and Scottish Crofting Federation.

The summary report assesses the three sources of data and seeks to answer the research questions set out in the brief.

6 Results from desk research study

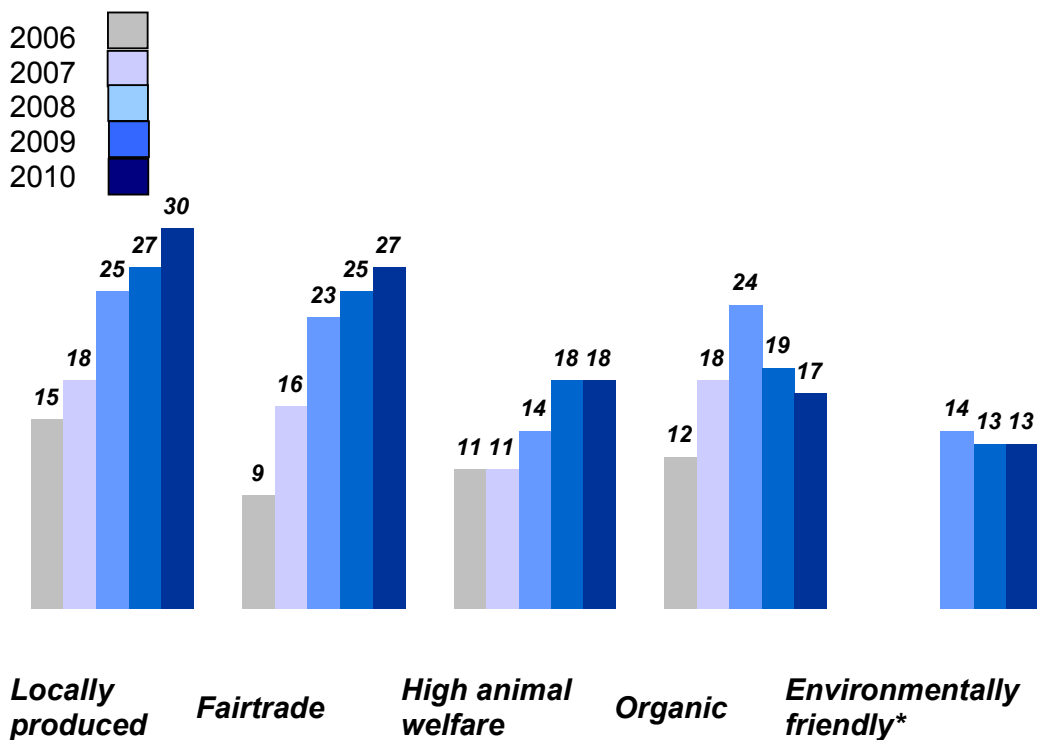
6.1 Consumer research analysis

Consumer market research

Source: IDG Shopper trends 2006 to 2010

Weekly shopping surveys show that the number of consumers who bought specifically local foods during the week they were interviewed, has grown from 13% of all shoppers in 2005 to 27% in 2009.

The market growth for local foods has been sustained even through the recent recession.

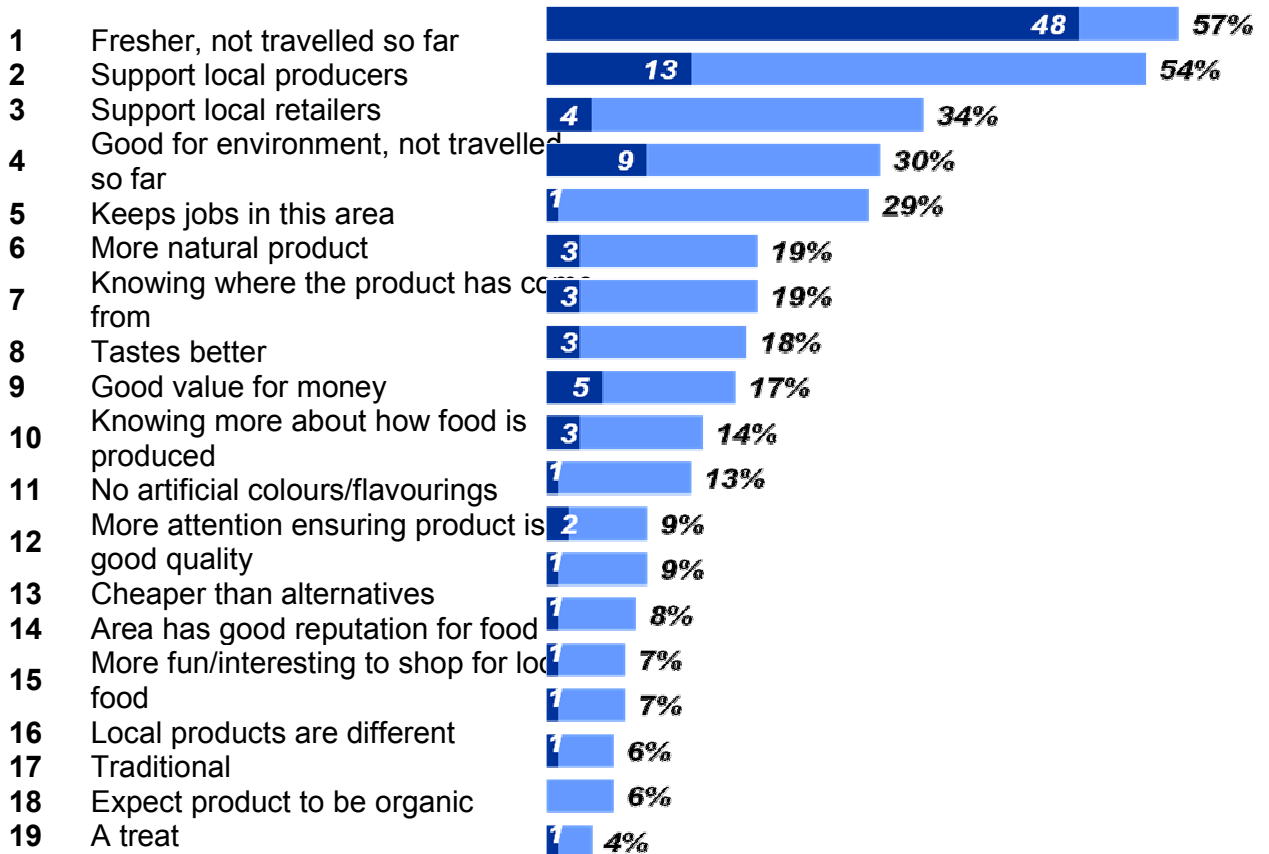


Scottish Origin

- Separate studies have shown:
 - 71% of consumers looking to buy local
 - 49% looking to increase local food consumption
 - 75% of Scots loyal to Scotch beef

Reasons for buying local food

The top two reasons given by consumers for buying local food in Scotland is to support local businesses, and because they get to meet and buy it from the people who make their food. The main barrier consumers say they face to increased consumption of local food is lack of availability.



There is still potential for significant market growth in local foods to meet this demand.

Rural Scottish consumers are among the most likely to buy local food. Largely untapped demand in urban areas of Scotland.

6.2 Labour market analysis

Source: Oxford Economics, May 2011 – “Scotland’s land based colleges skills requirement forecasting”

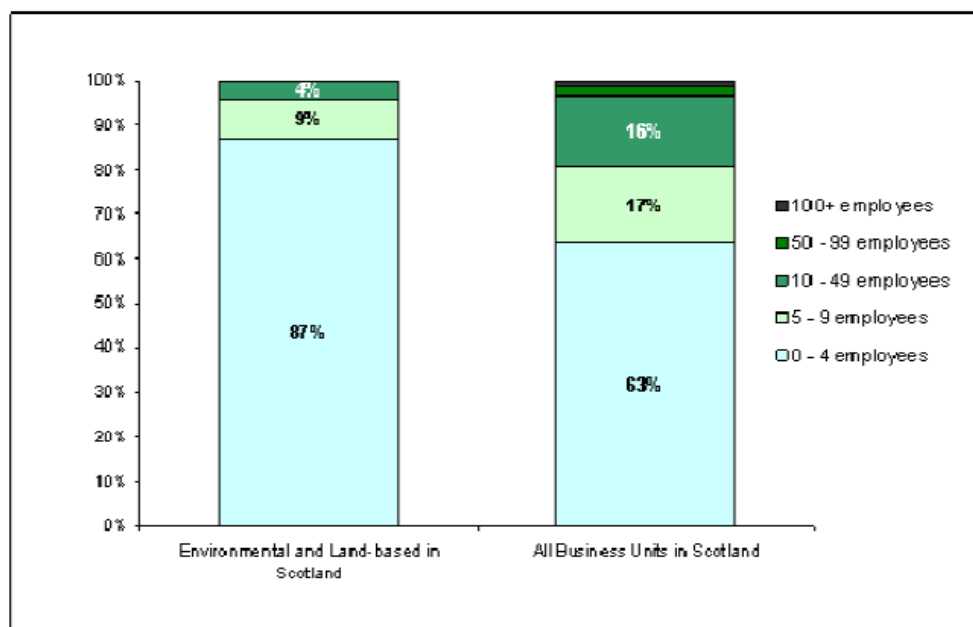
Source: Skills Development Scotland, June 2012 – “Skills Investment Plan for Scotland’s Food and Drink Sector”

Size of workforce

- The land-based sector in Scotland is estimated to currently contribute 69,000 jobs or over 2 per cent of total economy employment
- Following a long period of employment decline, which many people still associate with the sector, employment in the Scottish land-based sector has, according to official data, reversed and experienced noteworthy growth over the last decade in the order of 10,000-15,000 net new jobs.
- employment forecast, based on relatively conservative estimate, is for net employment growth of 460 land-based jobs per year in Scotland over the ten years to 2020.
- In 2008 (the latest year data is available from the IDBR), at least 17,500 businesses were operating in the land-based sector in Scotland, the vast majority of which are small and micro business with fewer than 10 employees.

Business structure

Scotland land-based and total economy business size structure (2008)



Source: ONS Inter-Departmental Business Register 2008 (IDBR)

Like the national picture, micro-businesses and self-employment are very common in the Scottish land based sector. 80% of businesses employ between 1 and 9 people which although slightly lower than the UK average, is still higher than most other sectors.

There are high levels of self-employment with 43% of people in the sector operating sole businesses. This has implications for skills delivery and access to training and may account for less formal qualifications being undertaken within the sector as training may not be seen as a priority or access to training by sole traders could be problematic.

Ageing workforce

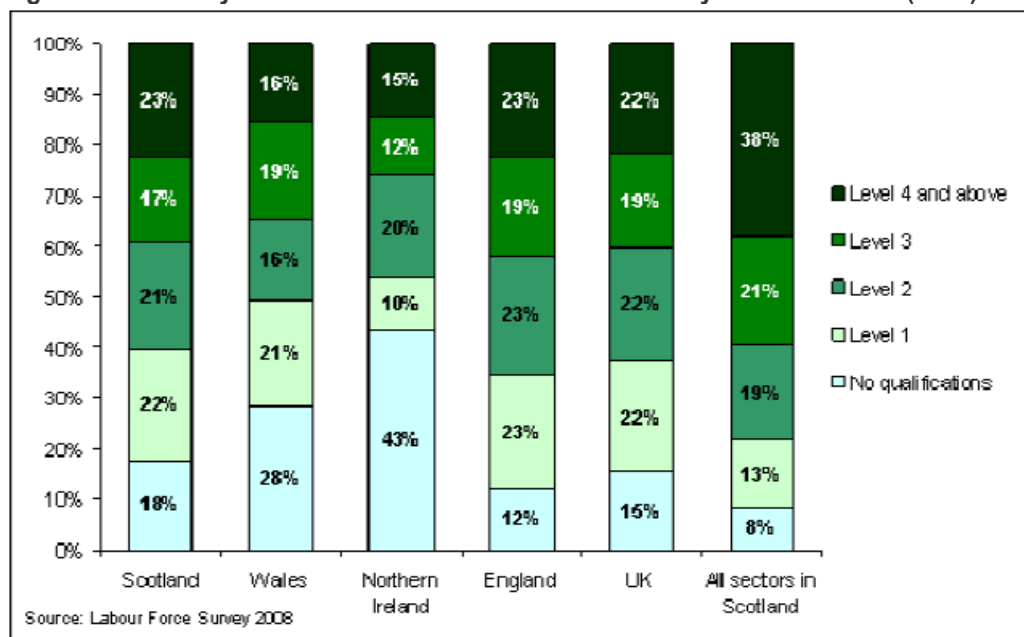
- The workforce of the land-based sector in Scotland is made up of a relatively high proportion of older workers. Many of these workers will be leaving the sector over the coming years (or will want to retire), creating a relatively high 'replacement demand' to be filled by new entrants from a number of sources, including leavers from the further and higher education sectors with different types and levels of qualification.
- Oxford Economics' estimate of net replacement demand for the land-based sector, which nets off joiners, is in the order of 2,600 posts per year.
- This quantum, plus the expansion demand of 460 jobs per year, gives a total demand of around 3,000 pa, which will need to be filled by new entrants from education (primarily full-time leavers) and from immigration from outside Scotland.
- High replacement demand in addition to moderate employment growth will give rise to substantial demand for newly-qualified people to join the sector.
- This has major implications for future skill needs in terms of not only replacing the potential large numbers of retirees (if workers are able to retire, e.g. owners of farms), but also their experience and long-developed skills over time.

Declining and expanding employment categories within the land based sector

- Declining:
 - Mixed farming
 - Forestry
 - Sheep farming
- Expanding:
 - Agricultural services
 - Growing of vegetables, horticultural specialties and nursery products
 - Cattle farming and dairy farming

Skills structure

Fig 3.5: UK country land-based and Scotland total economy skills structure (2008)



Compared to the economy as a whole, as shown above, the land-based sector has a below average share of its workforce qualified to degree level and above, as well as an above average share with low level qualifications.

- Furthermore according to the UK Skills Survey 2006, a high proportion of respondents from the land based sector stated that someone would not require qualifications if applying for their role today. Together therefore, it might be considered that the land-based sector is low to mid skilled.
- **However further evidence from the UK Skills Survey reminds us that skills are not just about formal qualifications but also about attributes and experience that enable workers to productively fulfill their job roles. Across all sectors, the land-based sector had one of the highest shares of employees reporting that it took 2 or more years to learn to do respective jobs well.**
- **We conclude from this that the land-based sector is still dependent on a skilled workforce and can be thought of as high skilled, but more so in terms of practical skills and on-the-job experience, as opposed to formal qualifications which are less recognised/appreciated by some employers in the industry.**
- This is a critical issue for thinking about provision given the role of 'on-site' practical training (and cost of such facilities) and work-based learning offered by land-based colleges. A useful aim for the sector would be attempt to minimise the time taken for employees in the sector to 'learn to do respective jobs well', as this could have a positive impact on the industry's productivity and performance.

The land-based workforce is relatively old compared to the economy average (it is also male dominated). According to the LFS, almost half of the workforce is aged 50+ compared with 30% for the economy as a whole.

This has major implications for future skill needs in terms of not only replacing the potential large numbers of retirees (if workers are able to retire, e.g. owners of farms), but also their experience and long-developed skills over time.

Furthermore according to Lantra, the land-based sector in Scotland has the highest proportion of employees aged over 45 compared to other UK country land-based sectors.

Of 194 different subject classes in FE colleges in Scotland, horticulture/ agriculture (combined) rank 31st.
No specialist production horticulture ranking given

While by no means a perfect comparison, it does suggest a potential over-provision of courses in 'gardening, floristry & plant sales' and 'pets & domestic animal care', an issue also corroborated by our consultations.

In contrast some superclass groups have seen an absolute fall in student numbers – crop production, forestry & timber production, animal husbandry, fish production & fisheries and rural & agriculture business organisation. This is despite a rise in employment in many activities related to these superclass areas between 2003 and 2008. Again this issue was identified in consultations. Poultry farming and food technology were identified as sub-sectors where increased employer demand has not lead to increased take-up of courses in these subject fields.

Skills Shortages

- _ In 2006 83% of **vacancies** were **hard to fill** and are linked to skills shortages.
- _ This compares with 60% across the whole of Scotland. In line with evidence from the whole of the UK, skills shortages are most prevalent in Skilled and Trade roles – these roles include farmers, stockmen, green keepers and florists.
- _ **These skills shortage issues are often coupled with location, pay and type of work which has resulted in higher numbers of migrant labour being used in recent years to address skills shortages and vacancies.** ⁴⁵
- _ Where migrant labour has played a significant role in the sector it has tended to be in the lower skilled manual labour jobs including fruit picking and vegetable production.

Agriculture – **there is an increase in learners coming from a non-agricultural background.** SAC was also seen to be a more attractive destination for those learners wanting to study agriculture.

Forestry and horticulture – clear challenge within the industry about acceptance of the requirement for training. Many people in the industry are 'self made' and do not have formal training. The industry is highly regulated - often the regulation is seen simply as constraining on the sector.

Relevant recommendations

At qualification level 3, there is also relatively clear evidence of an imbalance between demand and provision – too low a share of level 3 provision - resulting in a valid argument to encourage greater progression of DPG01 students beyond level 2, and at least certainly to level 3³².

Need to develop more flexible provision, e.g. on-line provision, bite-sized learning

Focusing now on distance learning, we highlighted before how overall the share of provision of distance learning courses was small at less than 1%. Given the reluctance of land-based business owners to sometimes release staff for training (especially given the dominance of small firms in the sector) and the wide geographical spread of employment, greater use of distance learning (technologically permitting in some localities) would be an appropriate medium to address a potential unmet training demand. This could not only address issues of access but also potentially bespoke and specialist provision (as specialist provision does not need to be provided from a single fixed location).

Box 8.1: Collaborative opportunities for the land-based colleges

'Validating' the significant element of course provision not leading to recognised qualifications (NRQs) and national certificate modules not leading to listed qualifications (e.g. accrediting an classifying)

- Developing online teaching materials and joint provision of distance learning
- Developing cross-cutting and generic business support modules (finance, marketing, business planning) for both learners and employers - this provision could be developed as

both stand alone modules and embedded into existing courses and could incorporate online content to respond to employer needs

- Enabling progression between further education and higher education
- Driving forward spatial expansion to areas of potential unmet demand (e.g. parts of the north east/Aberdeenshire and possibly the north west)
- Working together to ensure greater and simultaneous rationalisation and specialisation
- Managing strategic investment and funding cases in a more collaborative and joined-up manner
- Refocusing provision more towards industry as opposed to student demand
- Addressing sector data quality limitations (e.g. especially around demand) and 'setting the pace' for Lantra in terms of information requirements
- Tracking student destinations, progress and the economic returns to land-based education

6.3 Land sector economic analysis

Source: LANTRA

Food and Drink is one of the seven key growth sectors that the Scottish Government has identified as having the potential to increase Scotland's economic growth.

The mission is to grow the industry both at home and overseas. Building on strengths of significant advantages in the provenance of its products – which people immediately associate with quality, authenticity and trustworthiness. And a reputation for naturally healthy foods.

Structure

86% of the 19,000 businesses in Scotland's food and drink sector are farms and crofts; 10% are fishing, and 4% are processing food.

Over half of farms and more than two thirds of fishing businesses have no staff – they are one-person micro businesses.

In comparison, two thirds of food processing businesses have between 5 and 50 staff.

Economic contribution

The Gross Value Added (GVA) from food and drink is £4.8bn a year.

The value of exports is £5.4bn (in 2011)

Characteristics of workforce

- Ageing – average age 59 for farmers; and 45 for food processors. The industry needs new entrants.
- Lower skilled occupations, in comparison to the whole economy
- Low levels of qualification
- Many hard-to-fill vacancy gaps, compared to rest of economy – particularly for primary producers, due to skills shortages
- Many skills gaps among existing workers, compared to rest of economy – particularly for food processors

Lower levels of employer funded training, compared to all industries. Due to lack of provision, and high unit costs for small sized businesses

Drivers for future demand

Climate change/sustainability – environmental sustainability is growing in importance for land-based businesses. Resource management is critical to ensure that crop development, crop type and water supplies are maximised as resources become scarcer. Longer-term planning is required by the sector to help protect surrounding landscapes and to implement effective approaches to sustainability, especially in relation to reducing carbon emissions (e.g. carbon storage schemes) and managing chemical usage. The skills associated with this shift will continue to grow in demand and in some cases, would be most effectively met through incorporating principles of sustainable resource management into existing training provision.

Food security – as mentioned earlier, the issue of food security and how the UK ensures there is availability of and stable prices for food has increased in importance over recent years. Currently the UK is 61% self sufficient in food production, a decrease of 7% in the last decade. This decrease, coupled with an increase in bio-security risks, has resulted in growing pressure on the industry to ensure that quality assurance processes and traceability of food

production is clearly implemented. Having the right management skills in place to ensure quality assurance will remain very important for the industry.

Animal health and welfare – recent legislative changes have seen the introduction of the Animal Welfare Act. This has resulted in additional implementation of codes of practice, especially in relation to duty of care regulations. Disease identification, containment and bio-security all continue to have an influence on the sector. Continual up skilling and refreshing of knowledge is required to meet the needs of animal health and welfare.

Energy and fuel security – minimising energy consumption is critical to the survival of and profitability in many land-based businesses. As we showed earlier, there is a close correlation between oil prices and food prices, as well as agricultural profit margins. Fuel price rises are expected to continue over the coming years, as our forecast showed, adding additional pressure to the already tight financial margins within the sector. However, rising fuel costs, if it feeds through to shipping costs, would also increase the cost of imported products. Managing resources and maximising energy efficiency will support the protection of natural resources as well as improve profitability. The sector is also at the forefront of developing energy solutions through bio-fuels.

Labour supply – as shown in chapter 2, the land-based sector has an ageing employment profile. As a result, there is a need to recruit more young people into the sector and ensure retention of the existing workforce. The sector does currently suffer from an inability to recruit high numbers of young people, a problem not unique to the UK but affects land-based industries worldwide¹⁴. Training provision, via the further education sector, is a key way of promoting the sector and providing a progression route. Although there has been an increase in workers from the EU and the Seasonal Agricultural Workers Scheme is still in place, the long-term issue of an ageing workforce and the challenges this poses remain.

Economy – the impact of the recent recession and the global economic downturn have been felt differently by the different parts of the sector. Those sectors that are reliant on discretionary spending (e.g. floristry) and sub-sectors linked to the construction industry, such as timber, have been more adversely impacted. Clearly prospects for consumer spending (impacted by tax and interest rates) and the construction sector are therefore very important. The food production industry has however been more resilient as it is less affected by economic cycles. That said pressures on incomes and rising living costs could push some consumers towards cheaper imported goods. The food industry however remains highly competitive and globalised and the sector is influenced heavily by the European Common Agricultural Policy (CAP) and its ongoing revisions (which long-term, especially with expansion of the EU, point to a reduction in subsidies).

Support for local produce - attitudinally the difficulties faced by some land-based businesses in recent years and still today are well recognised in the UK, and support for local produce is increasing. The quality end of the market, where produce can be traced back to 'source' and the organic market segment are all expanding even as the UK is emerging from its most severe recession since World War II.

Competition for land - although the pressure on land for development has eased in response to the recession, there are other potentially conflicting demands. In particular, the demand on coastline and rivers from alternative energy sources can clash with demands for the aquaculture sector. Clashes between demand for farming land and for timber production are less common but nevertheless, the need to strategically plan land use requirements is a significant one.

Technology – the land-based sector continues to rely increasingly on technical and computing requirements as the technology used in all aspects of land-based production continues to advance.

6.4 Feedback from pilot local food training program

Source: Review of pilot training program 'Local Food Apprenticeship Horticulture, 2007-9.

Highlands and Islands Local Food Network.

The aim of the LFA pilot was to : “develop new local food growers able to meet consumer demand for fresh fruit and vegetables across the Highlands and Islands; and to do this by transferring local knowledge and skills from existing to new producers in the area.”

The three objectives of the project were to:

- develop new and viable local food businesses through providing Scotland's first local food apprenticeship
- develop the ability of local producers to transfer skills to a new generation of food producers in the area
- establish the 'mainstreaming' of the LFA after completion of the pilot program, and its roll-out to across H&I.

The outputs achieved against these objectives are:

- 27 apprentices joined the program. Of these 9 were existing farmers, looking to start new enterprises; 8 were crofters looking to utilise their land; 7 were gardeners looking to make a living through expanding their hobby; 3 were from social enterprises growing and selling fresh food
- At September 2009, of these 27:
 - 15 have become self-employed making their primary income from growing and selling horticultural produce to local customers in the Highlands and Islands
 - 3 are employed full time as staff in local food businesses in H&I
 - 2 have become employed but outside H&I
 - 5 have yet to use their new skills
 - 2 left the course before completion.

Eleven existing farmers and crofters have been certified by LANTRA awards as Instructors and paid to tutor on the course

The tutors have taught on 47 very full days of training delivery each year:

#	month	duration	topic
A	February	4 day	Direct marketing
B	March	4 day	Propagation
C	April	4 day	Soils and Fertility
D	May	3 day	Tractor and implements
E	May	4 day	Field cultivation
F	June	4 day	Protected cropping
G	July	4 day	Learning journey
H	August	4 day	Pest and diseases
I	September	4 day	Herbs
J	October	4 day	Fruit
K	November	4 day	Food processing
L	December	4 day	Business planning
	Total	47 days	

The LFA course has been registered and approved by LANTRA as a 'customised' vocational qualification award at Level 2/3. It appears to be the first course of its kind in the UK, and not just Scotland. In September 2007, the LFA won the 'Innovation Award' in the Highlands and Islands Food and Drink Awards.

Apprentices feedback

Feedback session with the Apprentices revealed a high level of satisfaction with the course, plus a range of suggestions for improving its delivery in future years. The overall satisfaction rating for the 2007 LFA was 77%.

The LFA was seen by participants to be successful for 4 main reasons:

- **practical skills**
 - *"It's very practical....we couldn't have learned this from a book"*
 - *" we've learned real skills on real farms, taught by real farmers"*
- **confidence building**
 - *"people take me seriously doing this now, and I suppose I take myself seriously too"*
 - *"I used to dream of doing it – now I am doing it"*
- **business focused:**
 - *"I am using the skills right now, to run my new business and earn a living"*
 - *"I thought it was just about growing....I've prepared a business plan that it taking me in a direction I hadn't even imagined before the course"*
- **networking**
 - *"I was trying to do this all on my own, now I know 20 or 30 other growers in the Highlands....people who will help me as a get going"*
 - *"other producers are the ones most wanting me to succeed.... they make me feel I 'belong'"*

Asked if they would recommend the LFA to other new growers, 100% said they would. Apprentices think that the course should continue to be offered as a full programme, as well as a 'DIY apprenticeship'. However, the full year of training is essential, and the course should not be run as a 'pick and mix' of units.

There was praise for the main farms used for teaching; the quality of 'experts' adding their input; and for the number of visits to case study businesses.

The mentoring element of the LFA was felt to be weak and could be improved.

Suggestions are for:

- mentor to visit the apprentices land early on in the course and for the apprentice to visit the mentor's farm too
- three or four visits by the mentor to the apprentices land and that this should be the main contact
- mentor to help with reviewing their Business Plan and decision making, as it is put together

Instructors feedback

A feedback sessions with the farmer-instructors revealed that the course structure of a year of monthly training session works well. And using experienced farmer to teach practical skills on their own farms, backed up by 'expert' input and business marketing sessions is a successful way to transfer skills to new growers. There are very few changes needed to the syllabus or teaching team, but the associated

support for apprentices such as mentoring and assignments does need more thought and development.

The five strongest elements of the LFA for instructors are:

- LANTRA system of teaching delivery that they had been taught works well.
- Teaching days were usually structured with 5 x 90 minute sessions per day: starting with a classroom session; followed by two practical sessions on site; then a review session, usually on site; and then an evening seminar session. This format work well and give at least 50% of time spent on practical sessions. Instructors would like to see the proportion of time spent to practical session increased to 60% or even two-thirds.
- The continuity of having the same 12 pupils every session for a year is excellent, and means that delivery can be tailored to their needs, and topics can be linked together over several months. This structure works.
- 'experts' input has added to the theoretical knowledge of the course and all this years 'experts' should be used again. Contact between the tutors and the experts before relevant sessions is essential to make it work
- The syllabus content was about right. Two areas where many apprentices were lacking were in plant physiology; and in spreadsheet use. These two areas need specific teaching sessions to be added in future years.

Five areas where improvements need to be made are:

- sessions plans were often drawn-up at the last minute and minor changes made to the timetable – this was difficult for instructors to adapt to, especially during busy summer months. And the tutors for each block should meet one month before to prepare.
- some topics went 'over the heads' of some apprentices, and need to be brought to the appropriate level. Marketing and nutrient budgeting were two examples
- the 'crop maintenance' session at the end of each 4 day block were not fully utilised. These sessions could be done away with and replaced with a series of practical tasks each month that the appreciates have to complete on their own
- Mentoring is not working effectively. Apprentices need help with developing their own business rather than with the course itself. But not enough time was allocated to mentors to visit their apprentice. Additional mentor training is needed for tutors, and a timetable for mentoring agreed that includes 3 or 4 visits to each trainees site, plus catch-up calls between. This will take significantly more time per tutor to deliver
- the assignments were time consuming for the apprentices and involved mostly writing and costing work. The assignments would be more practical in nature, and written exercises should be shorter in duration.

Personally the instructors had gained a lot of enjoyment teaching on the LFA and are all keen to teach on the course in future. Most have been teaching for the first time and their confidence in their teaching ability and in their own expertise has risen markedly as a result of delivering the course. Several have gone on to do other speaking and training sessions as a result of their experience with the LFA course.

Many tutors commented that the apprentices were all self-starters: looking to run their own business on their own land. This was good for motivation on the course although time for many apprentices was at a premium as they had other jobs to support their fledgling horticulture enterprise. Apprentices were generally older (average age 39) than anticipated, which brings maturity and experience. However,

the course does not currently attract younger people who intend to work in someone else's farm business, and these people do need to be attracted to the industry, to bring new workers to help expand existing businesses.

Future demand

Future need for skills development to meet consumer demand for local foods is difficult to measure directly, as it is a new and emerging market trait within a much larger and mature marketplace. For this review HILFN has had to collect its own, new data on potential training needs, and research a number of avenues to estimate demand. The needs expressed in each are:

Take-up – demand for places on HILFN courses is consistently high :

- LFA in 2007 – had 67 applications for 12 places, with each paying £500 per place for the course; in 2008, 103 applications for 15 places, each paying £600
- Local Food technical seminars – had 157 businesses attend 11 seminars during 2007, with each paying £25 per place; and 124 businesses attending seminars in 2008, at the same cost.

Needs expressed by producer groups – a questionnaire was sent to 52 small producer groups that have members supplying local food in Highlands and islands. 50% responded, from groups in all LEC areas, who between them have a total producer membership of 560 local food producers Their responses reveal:

- producer groups would like to see the LFA available in 4 new areas: Western Isles; Argyll mainland and islands; North West Sutherland and Wester Ross; Cairngorms National Park. 9 groups said they would be willing to work with us to help develop LFA in their area
- there were requests to run 123 one day technical seminars over the next 3 years, for these groups and their members. The requests cover a range of 6 meat supply topics; 8 horticultural production topics and 6 local food marketing topics. There was on average a demand of 2 one day courses per member over a 3 year period, which is reasonable. Of the 123 course requests, 88 are deemed to be viable, in so far as they would attract an audience of 10 or more for technical topics and 6 or more for marketing topics
- 8 out of every 10 groups would be likely to attend an annual 'Local Food Producer Groups seminar' for all groups, with late November/ early December being the best time to stage this event. Most groups would like to send two delegates
- 9 out of every 10 groups would like to access technical advice visits for their members. There was felt to be a great shortage of technical advice help to address local food market development needs, and several groups had sought advice from HILFN via their LEC and Development Partners, but only one group had received any advice on the ground using this route. Lining-up multiple visits, where a local food 'expert' could visit 4 to 6 producers to give advice, over a 2 or 3 day period was requested by many groups.

Conclusions from review of LFA pilot

Overall, the LFA pilot has been a success. It has delivered on all three objectives that were set:

- As a result of the LFA, 15 new local food businesses have been started by apprentices in Highlands and Islands, and 5 apprentices have been employed in expanding local businesses in the area

- The LFA model of creating a 'fast track' to local food business start-up by using experienced existing local food produces to pass on their skills to new growers is successful. All the apprentices would recommend other new growers to take this route, and all the farmer-instructors would like to teach on the course again.
- The LANTRA system of training farmers to be instructors; of HILFN being its own training centre and of a recognised certificate being issued for an entirely new syllabus, all work well.

The pilot programme has shown the LFA approach to be successful and deliverable, and this has been achieved within the budget and timescale set. The course is now ready to be rolled out to other areas.

When rolling out the LFA course, a number of minor changes to timetabling and syllabus need to be addressed; plus a re-think of the mentoring arrangements and assignments.

However, making these changes and then re-running the LFA will meet only part of the demand for local food skills expressed by small businesses in the region. If the full range of staff and skills are to be available that are needed to allow businesses to meet the growing demand for fresh local food, then there needs to be a significant number of new start-ups and business expansions. Enabling this to take place requires a skills programme that can tackle five 5 needs. These 5 needs are critical to the success of the emerging local food sector and can be summarised as:

1. Attract more, younger new apprentices....
2. to Local Food Apprenticeships that cover all parts of Highlands and Islands....
3. for local food products that are in strong consumer demand.
4. Offer existing businesses access to Local Food technical seminars
5. backed-up by one-to-one expert advice.

7 Analysis of policy setting

Scotland's skills strategy

_ The Scottish Government has recently published their revised skills strategy for Scotland. The Strategy, Skills for Scotland: Accelerating the recovery and increasing sustainable economic growth, is built around four priority themes. These are:

_ **Empowering people** to ensure they can access the right support, opportunities and skills to help them to contribute to and benefit from future economic success

_ **Supporting employers** by better understanding and assessing skills needs and ensuring that the supply of skills training and qualifications responds to this

_ **Simplifying the skills system** to ensure it is easier to understand for individuals and employers

_ **Strengthening partnerships** to increase collective responsibility between public, private and third sectors to help improve skills and the contribution to Scotland's social and economic aspirations.

_ There are a number of key sectors and skills identified within the strategy which relate directly to the land-based sector. _ These are:

Skills for a Low Carbon Economy,

Tourism, Food and Drink and

Colleges and workforce training opportunities.

Skills Investment Plan for Scotland's Food and Drink Sector, June 2012

Food and Drink is one of the seven key growth sectors that the Scottish Government has identified as having the potential to increase Scotland's economic growth.

The mission is to grow the industry both at home and overseas. Building on strengths of significant advantages in the provenance of its products – which people immediately associate with quality, authenticity and trustworthiness. And a reputation for naturally healthy foods.

Priorities for support in skills development in the food and drink sector:

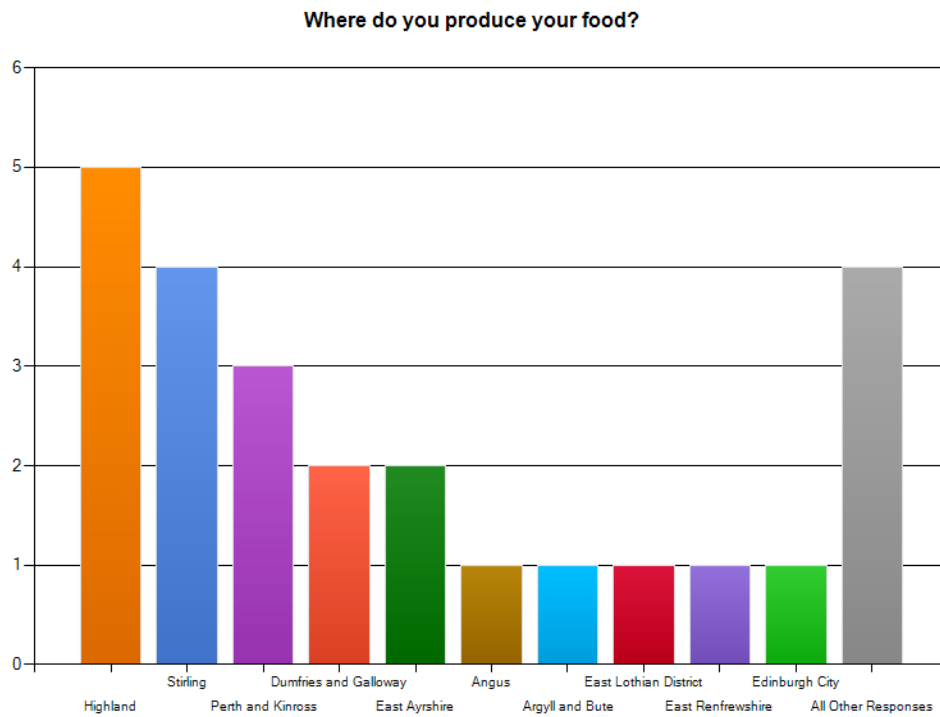
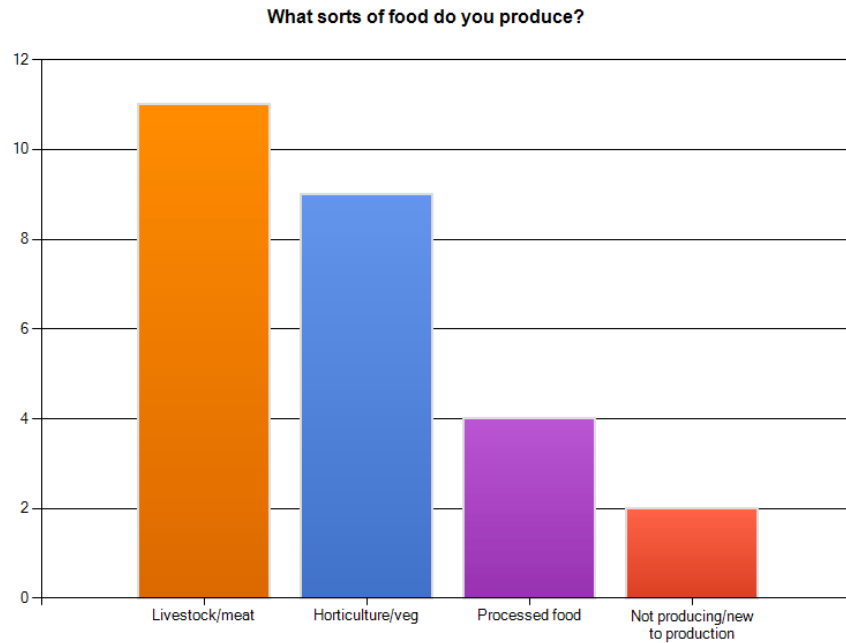
1. Attracting new entrants
2. Supporting company capacity to innovate
3. Leadership and management within the sector
4. Development of skills for business growth in the workplace

And within (4) above - development of skills for growth in the workplace, the key areas for action are:

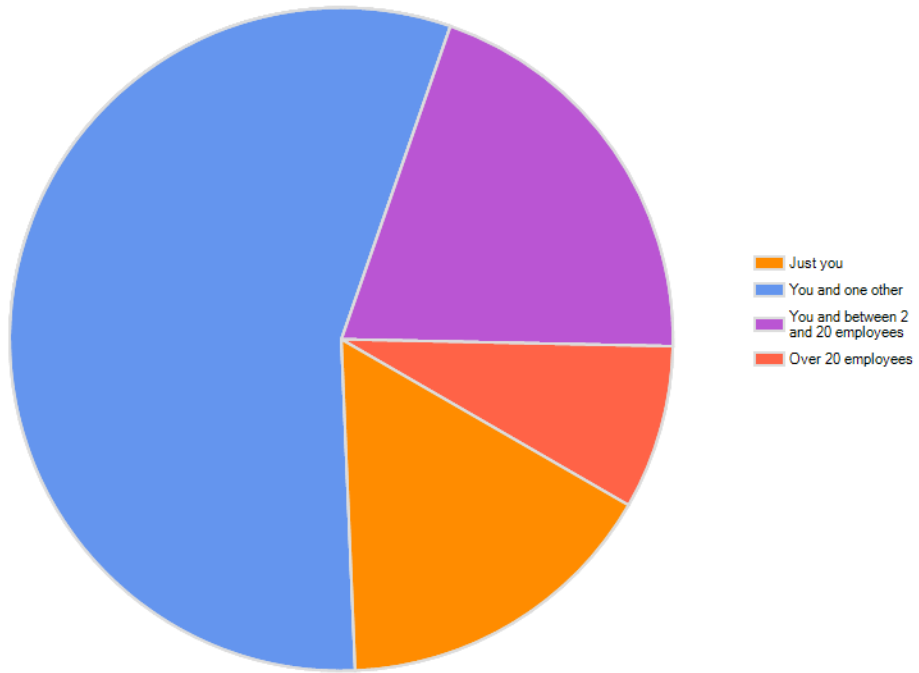
- Promoting the benefits of collaboration
- Assisting companies with UK market development
- Helping businesses reduce waste and increase sustainability
- Promoting and supporting workforce development

Within workforce development, existing actions include: "Local Food Provenance Skills" (the project of which this study is part).

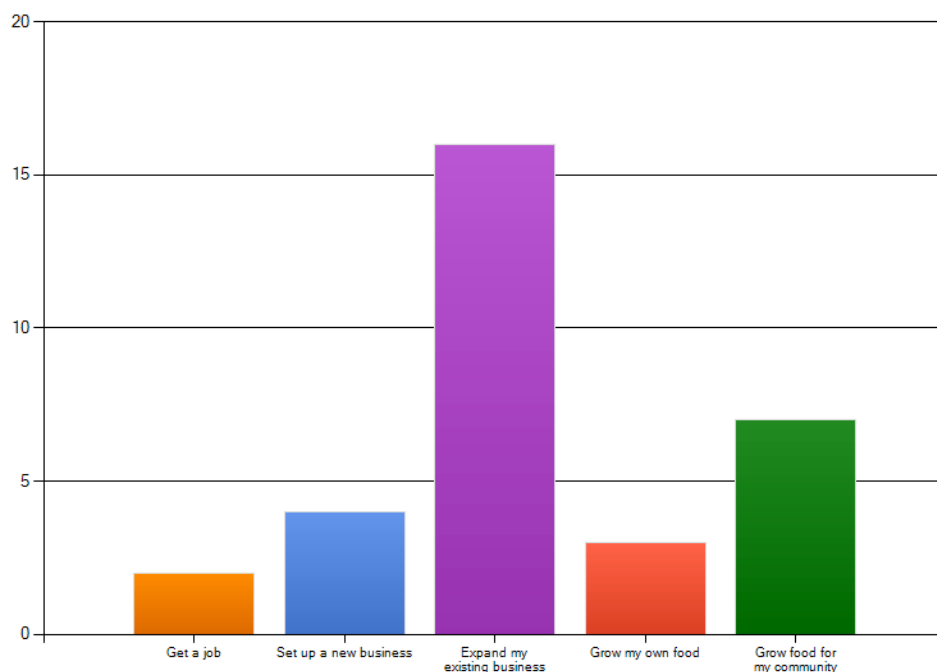
8 Results from on-line survey of businesses



How many people are involved in growing food at your site?



What's your interest in food skills training?



I'd like to know more about local markets, how to grow for them and gain more skills in growing commercially

Learn how to do things professionally with minimum wastage

I would like to set up a small local food business where I could sell/trade locally grown food stuffs to earn some money and reduce food miles and carbon footprint

I am also interested in establishing a food growing business of my own that could contribute to my income

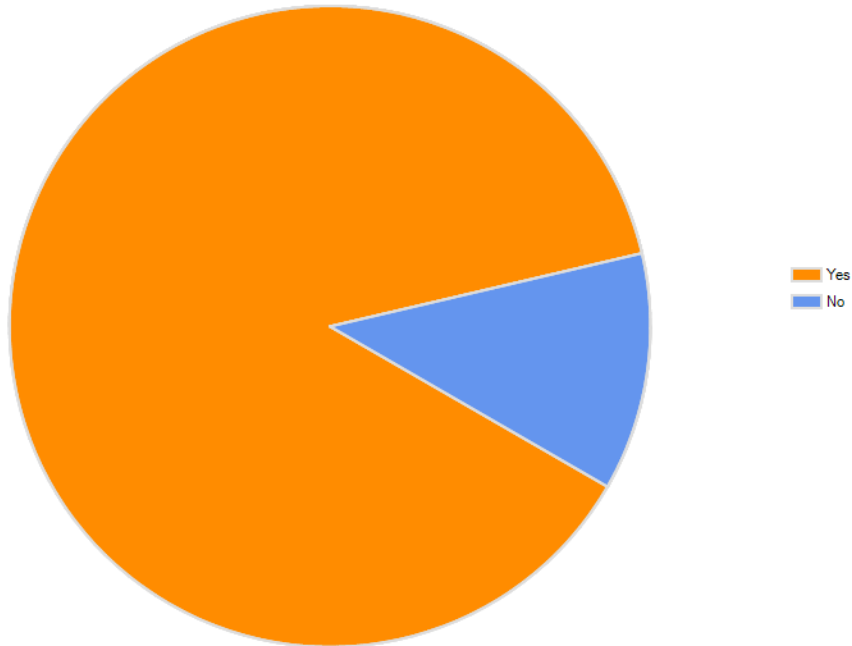
To learn how to best market my business and possibly set up a local market in our village

We need specialised information, both for ourselves and staff

Training in these particular skills seem non existent anywhere near my area, and charcuterie training only seems available in southern England at tremendous expense

to work more efficient, being able to work out a business plan and whether and how my business is making some profit

If you already produce, or want to train to produce food, do you have access to the land you need to set up or expand your businesses?



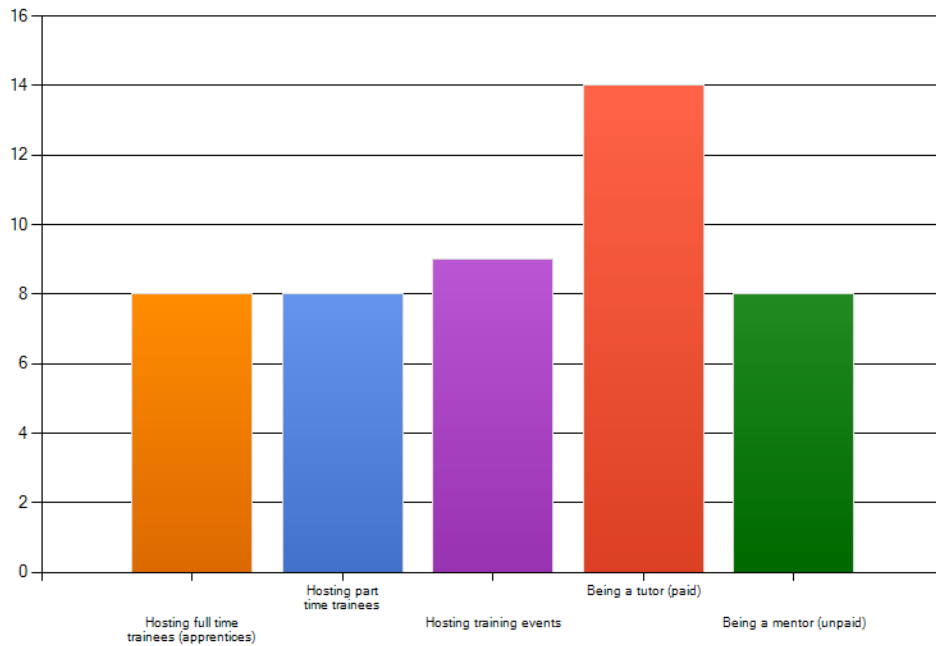
I can't afford to buy land to produce food

If going to produce as a business would need more land than currently have access to

It's access to 'suitable land' which also includes being connected to a consumer base, land surrounding cities for example are ideal however incredibly unaffordable for small scale growers and are a huge barrier to young farmers wanting to get into growing.

“We have recently tried to purchase a croft but were turned down flat by banks who were A) not aware of new crofting regulations regarding ownership B) Turned down by crofters commission for support as we were not suitably high enough up the waiting list “

We are also looking for businesses to host trainees and training events. Would you be interested in:

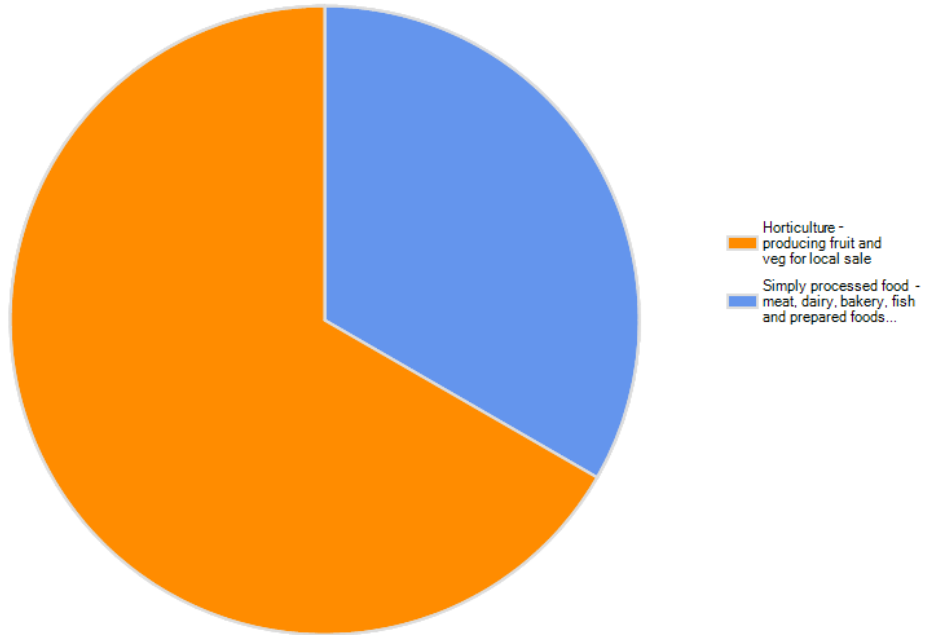


We only have basic amenities at the moment, but our house and outhouses should be built by the year end and we hope to have our own on site butchery and pack house.

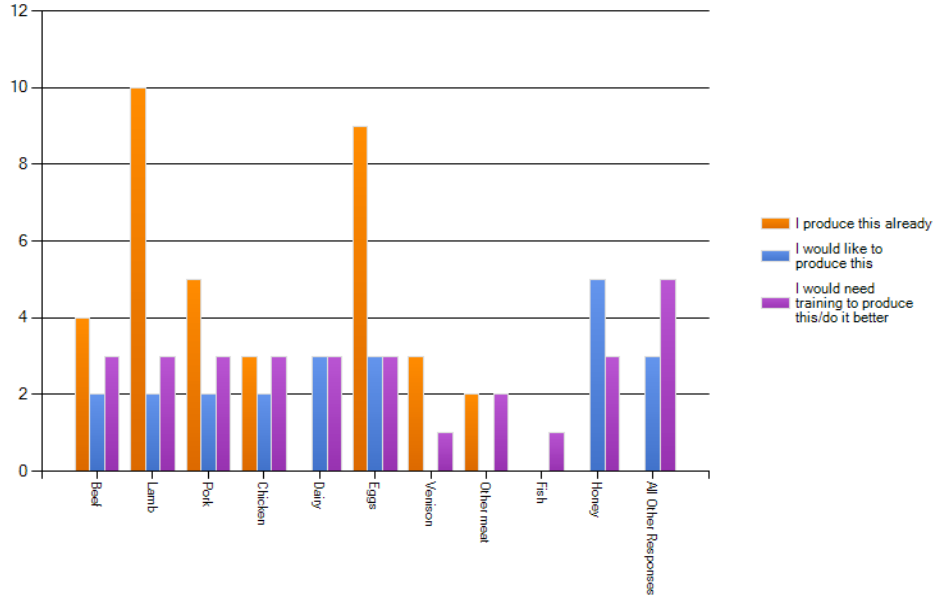
Many start up food businesses overlook the basics of process plant development and design + the legal requirements for sound Food Safety management systems and the foundations required to set them up. All food businesses upstream from Primary production by law have to have Food Safety management systems based on HACCP.

not sure, depending what that might involve and how confident I would be feeling

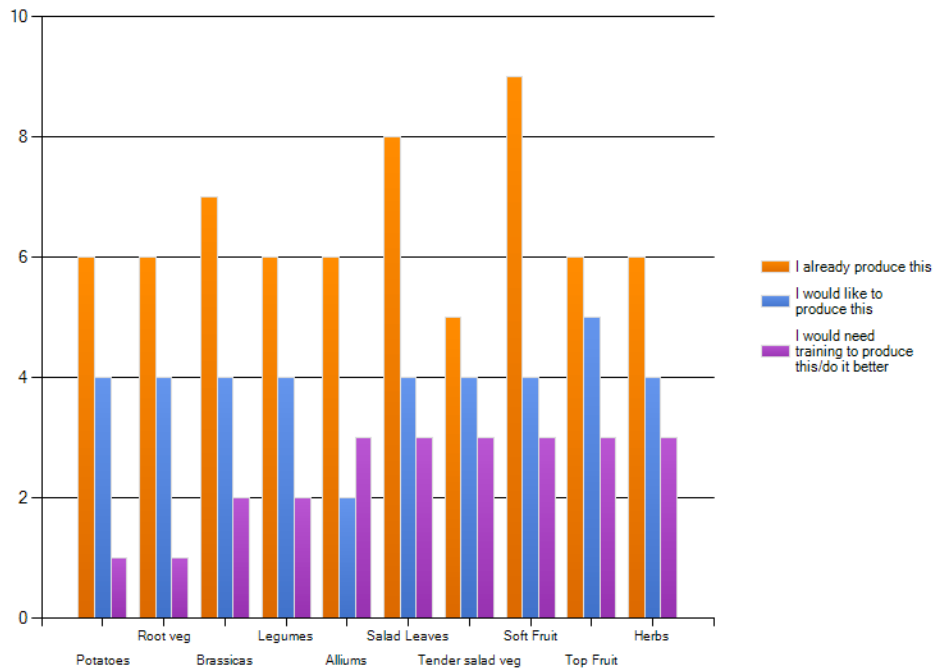
All participants in the full program will do local food marketing units and small business management units. There are 2 technical options, please tell us which you would choose:



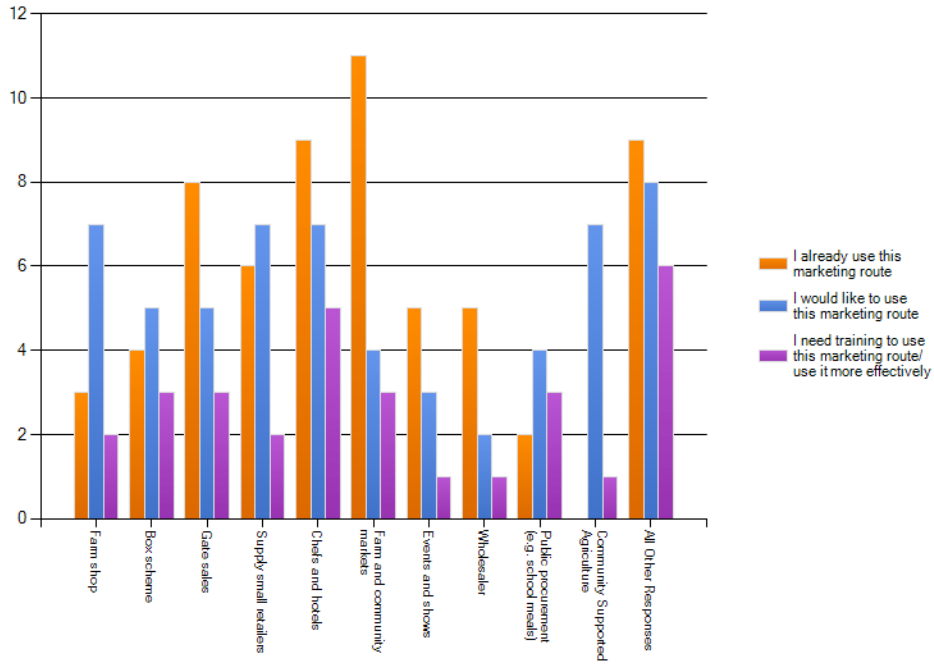
Which farm products do you produce and/or need training to produce?



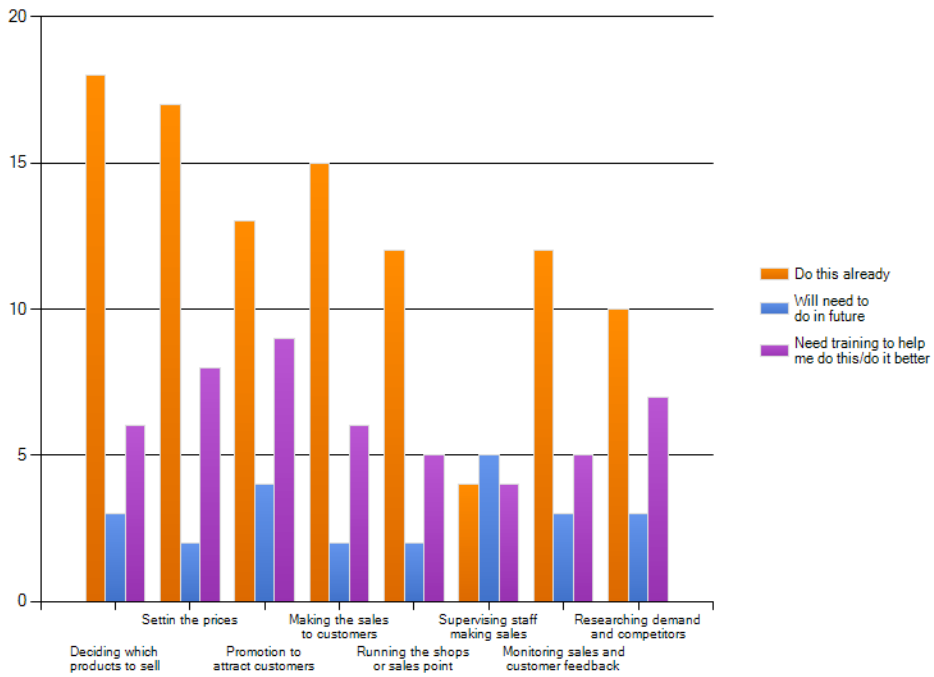
Which horticulture products do you produce?



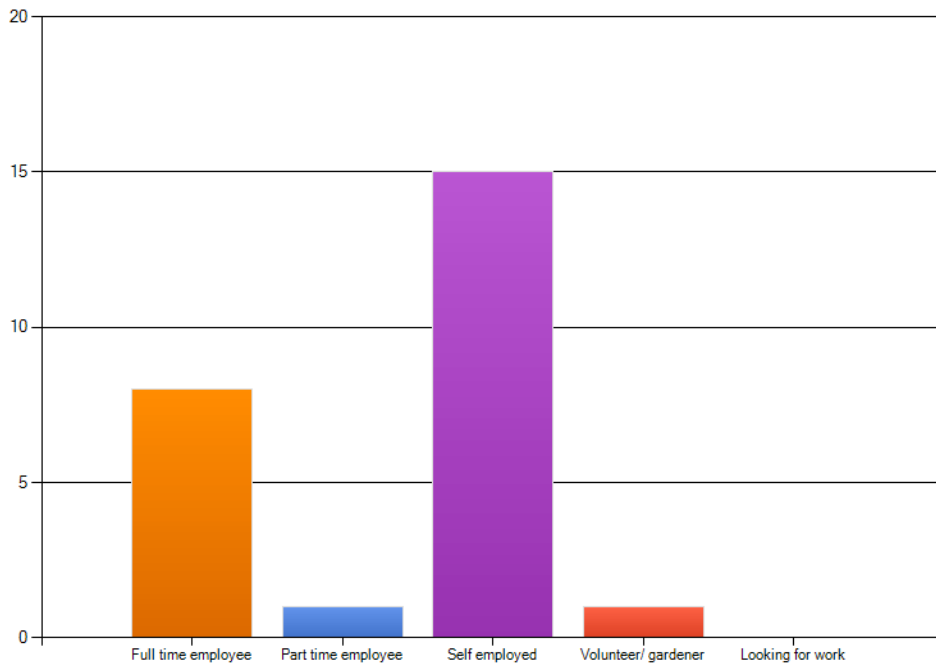
Which marketing routes do you use?



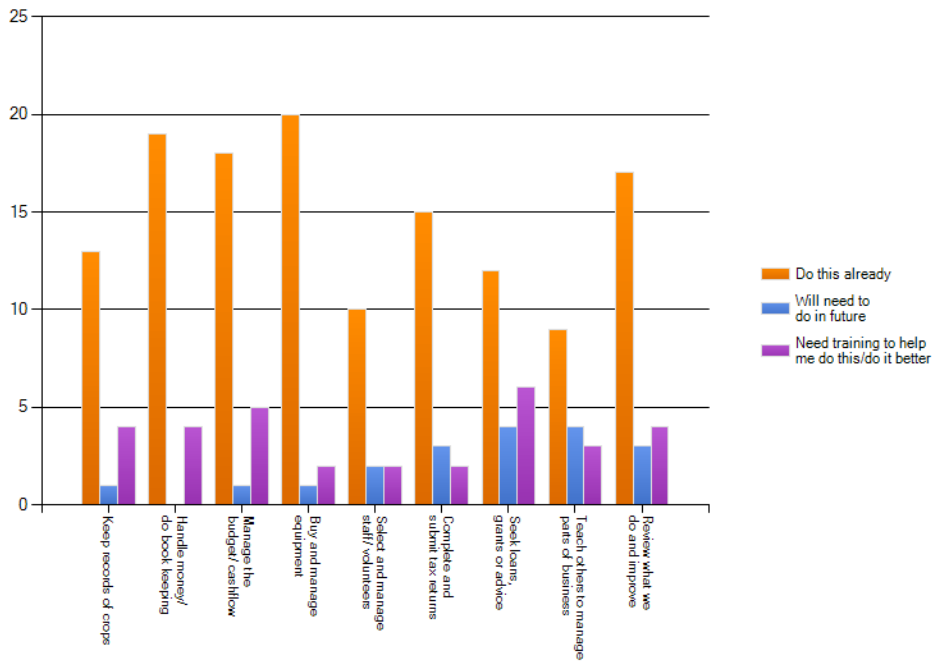
What marketing actions do you do yourself?



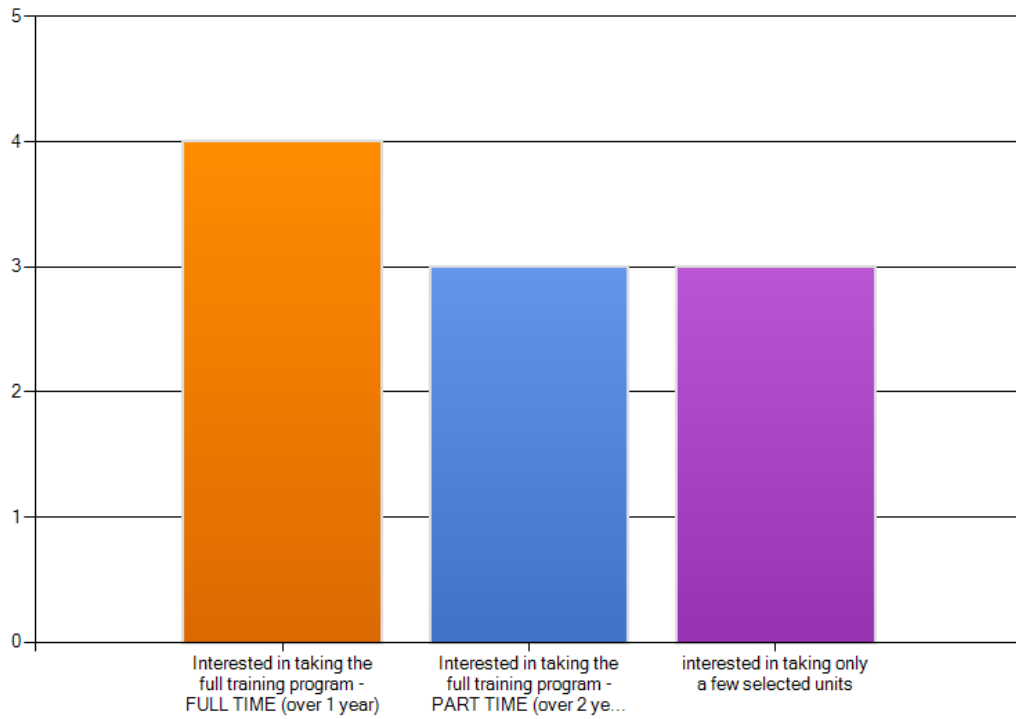
How are you employed?



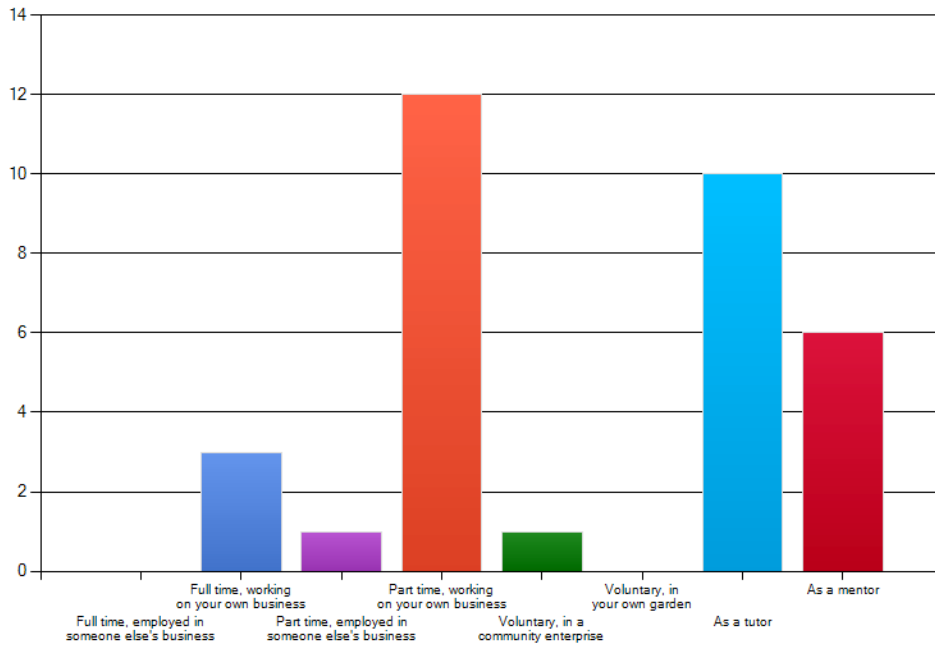
If you are responsible for managing the business, do you....



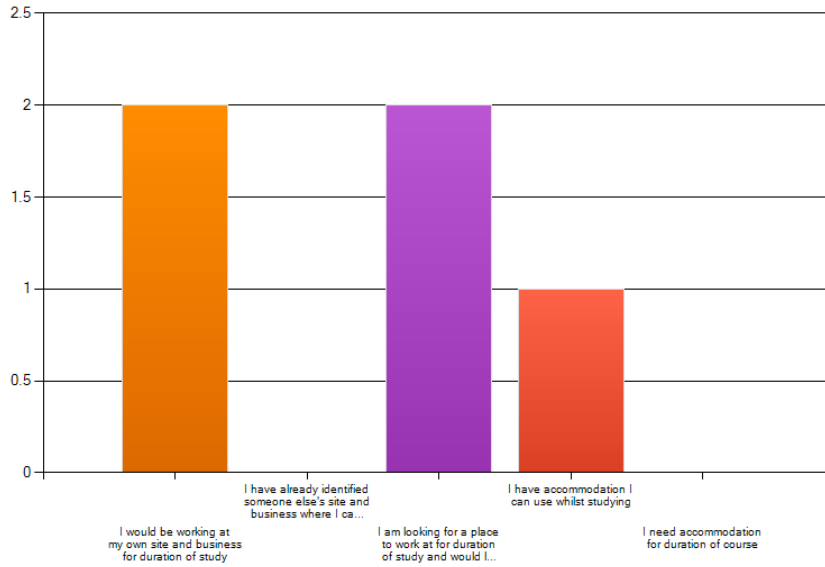
Are you:



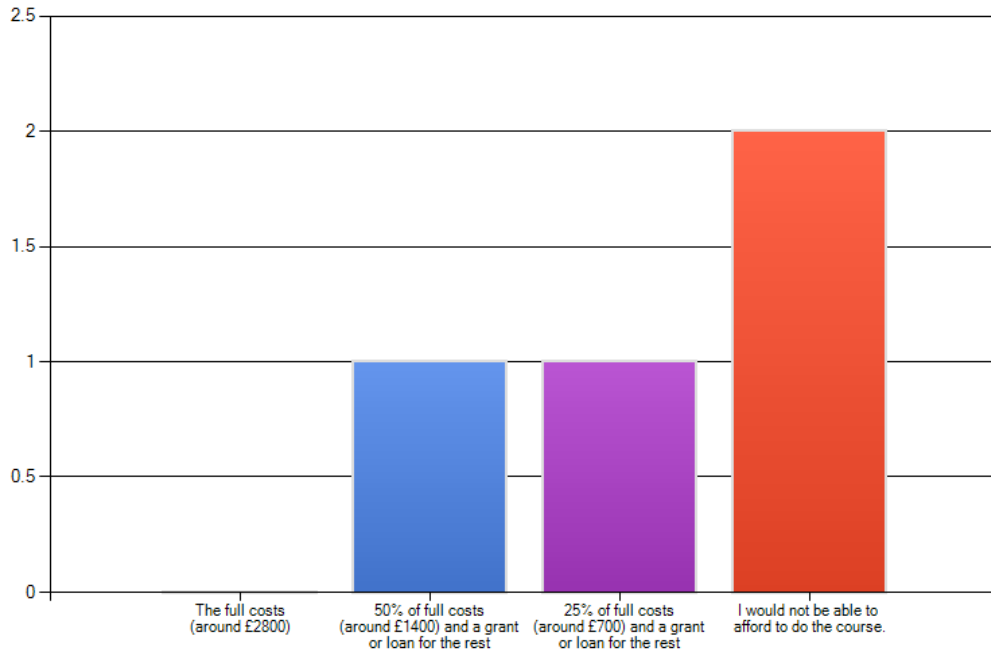
If you would like to join the programme, or are thinking of it, would you be likely to join in as....



For students interested in taking full training programme, please indicate which of the following apply to you:

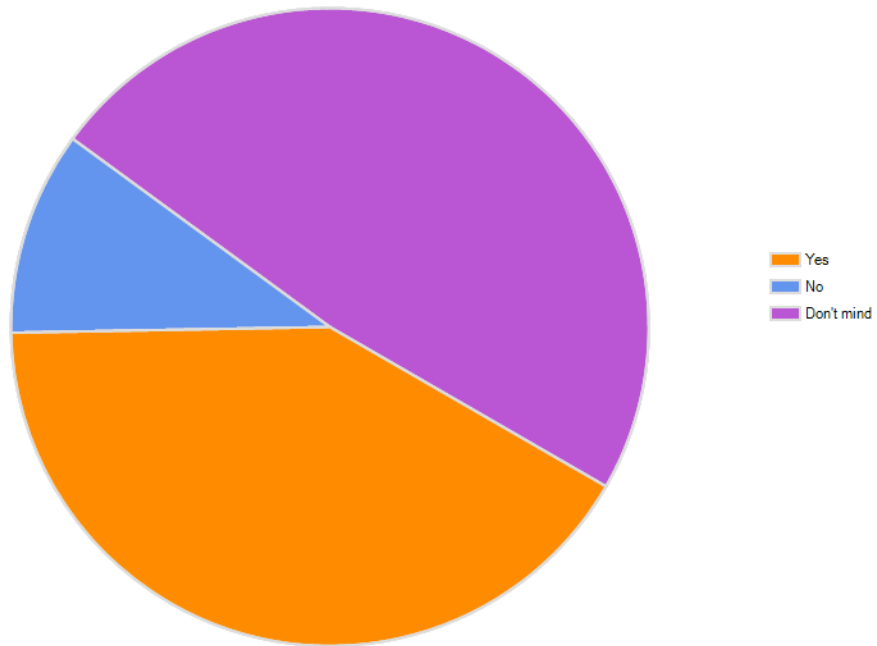


We anticipate that the full course will cost around £2800 per student to deliver. If you want to do the full programme, how much of that are you able to fund yourself, from savings or working for your host during the course?

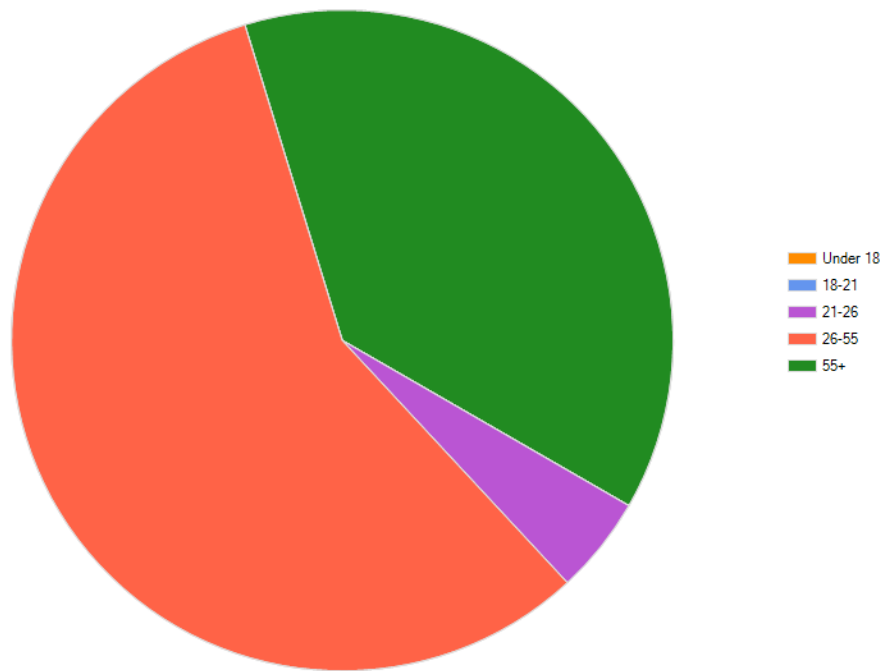


“Having to work to support my family whilst studying if I had to work away”

Would you like to work toward a recognised qualification as part of your training?



What age are you?



9 Results from desk study of current training provision

Tertiary Education - Scotland

College	Course title	level	duration	Content overlap
Elmwood	Certificate in Horticulture	RHS level 2	48 weeks	Getting Started in Business Horticulture Mechanism Principles Plant Growth and Development Horticultural Practices Soil Management
Elmwood	Introduction to Professional Gardening		1 year	Horticultural Machinery Use The Use of Hand Tools Tree and Scrub Planting Maintain Plants Outdoors Small Engine Powered Machine Operation
Elmwood	Mixed Farming	SVQ level 2/3	1 year	Provide Feed and Water to Livestock Assist with Maintaining the Healthy Performance of Livestock Prepare and Cultivate Sites for Planting of Extensive Crops Monitor and Maintain Health and Safety Develop Personal Performance and Maintain Working Relationships Maintain and Repair Structure and Surfaces Maintain Communications and Records within the Organisation Monitor and Maintain the Healthy Growth of Extensive Crops Control the Movement of Livestock Prepare and Operate a Tractor with Attachments
Oatridge	NC in Horticulture and Garden Design	SQF level 5/6	1 year (3 days a week)	Soils - Structure and Function Plant Husbandry Tree and Shrub Planting Hand Tools in Horticulture Plant Identification Soft Landscaping - General & Specialist Planting Soft Landscaping ; Trees & Shrubs

				<p>Small Engine Powered Machine Operations</p> <p>Pot Plant Production</p> <p>Propagation by Seed and Vegetative Means</p> <p>Landscape Construction</p> <p>Plant Structure and Function</p> <p>Communication, Information Technology.</p>
Oatridge	HNC in Horticulture	SQF level 7	1 year (2.5 days a week)	<p>Horticultural Practices</p> <p>Plant Recognition and Use</p> <p>Soil Management</p> <p>Plant Protection : Problems & Control</p> <p>Horticulture Mechanisation Principles</p> <p>Plant Growth & Development</p> <p>Plant Physiology</p>
University of the Highlands and Islands	Mixed Farming	SVQ 3	2 years	<p>Prepare, monitor and cultivate sites for planting crops</p> <p>Promote and maintain the healthy performance of livestock</p> <p>Promote, monitor and maintain health, safety and security</p> <p>Develop personal performance and maintain working relationships</p> <p>Receive, transmit and store information within the workplace</p> <p>Prepare and operate a tractor with attachments</p> <p>Monitor, maintain and evaluate the provision of feed and water to livestock</p> <p>Monitor and maintain the selection of livestock and prepare them for transfer</p> <p>Promote, monitor and maintain the healthy growth of extensive crops</p> <p>Monitor and maintain the storage of harvested crops</p>
Barony College	Mixed Farming	SVQ 3	1 year	<p>Livestock and Grassland Production Systems</p> <p>Animal Health and Welfare</p> <p>Farm Records and Performance</p>

**Industry
provision -
UK**

Scottish Crofting Federation	Entry level Crofting Induction Course (desk based)		10 evenings or 2 days	
Scottish Crofting Federation	Practical Skills Training Programme		1 or 2 days for each unit	<p>Crofting Livestock (sheep shearing; lambing; basic livestock husbandry)</p> <p>Croft Land Management (fencing; pest control; soil analysis; equipment use)</p> <p>Crofting Conservation and Environment (muirburn; improving grassland; managing wetland)</p> <p>Crofter Forestry (coppicing; structural support for trees; deer management)</p> <p>Crofter Horticulture (use of polytunnels; crop disorders; soft fruit growing)</p>
The Soil Association (England only. Not certificated by a college)	Organic Apprenticeships		2 years	<p>Manures and composts</p> <p>Marketing and business</p> <p>Plant biology, classification and seeds</p> <p>Rotations and fertility building</p> <p>Harvest, transport & storage</p> <p>Propagation</p> <p>Protected cropping and nursery production</p> <p>Tillage and machinery: cultivations and machinery: post cultivation and irrigation</p> <p>Soft fruit production</p> <p>Top fruit production</p> <p>Grassland management</p> <p>Arable</p> <p>Cattle – Beef</p> <p>Sheep</p> <p>Pigs</p> <p>Chickens – laying and meat</p> <p>Tillage and machinery Cultivations</p> <p>Tillage and machinery Post cultivation</p> <p>On farm processing</p>

College	Course title	Level	Duration	Organic element
University of Worcester (Persnore)	Organic Horticulture	Full-time HNC	2 year PT	All
University of Worcester (Persnore)	Horticulture	Full-time HND	2 year	Organic & Sustainable Horticulture as one of 3 pathways
University of Worcester (Persnore)	Horticulture	Full-time Degree BSc	3 year	Organic & Sustainable Horticulture as one of 3 pathways
Royal Agricultural College	Agriculture - (Agriculture (Farm Management))	Sandwich Degree	3 year	Can select as module in 3rd year
Scottish Agricultural College	Agriculture	Full-time HND	2 year	
Scottish Agricultural College	Agriculture	Full-time HNC	1 year	
Scottish Agricultural College	Agriculture	Full-time Degree	3 or 4 year	Can select as module in 3rd year
Scottish Agricultural College	Organic Farming	MSc/PGDip	Distance learning	6 week placement
Newcastle University	Organic Farming and Food Production Systems	MSc	1 year	All organic, focus on ecological and sustainable farming with options to diversify into global food production and law/policy There are eight taught modules, one each month, followed by an 18 week dissertation period
Schumacher College	Sustainable Horticulture and Food Production	MSc	1 Year	
Harper Adams	Sustainable Agriculture	MSc	1 year	Research project worth half of master

