



Future Growers
Apprenticeships and Traineeships
Handbook



Soil Association

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Contents	
Introduction.....	5
Future Growers scheme aims and objectives	6
After the scheme.....	7
Teaching and learning methods	8
Work-based learning.....	9
Mentoring.....	9
Seminars	10
Seminars and field trips for trainees	11
Seminars and field trips for apprentices	12
The network.....	14
Project (apprentices only)	15
Employment conditions	15
Trial periods.....	16
Host farms.....	17
Admission	17
Fees.....	17
Deposits.....	17
Payment plans	18
Assessment	18
Obligations	19
The Soil Association	19
The Trainee/Apprentice	20
The host farm	20
Disputes.....	21
Annex 1: Future Growers Syllabus	22
Annex 2: Instructors and hosts.....	30

Annex 3: Organic farms involved in the Future Growers scheme..	32
Annex 4: Project guidelines (apprentices only)	33
Annex 5: Suggested reading.....	36

Introduction

The Soil Association was founded in 1946 by a group of farmers, scientists and nutritionists who observed a direct connection between farming practice and plant, animal, human and environmental health.

Today, we are the UK's leading membership charity campaigning for healthy, humane and sustainable food, farming and land use. We have over 150 staff mainly based in Bristol and Edinburgh with certification inspectors working across the country. The Soil Association's Chief Executive is Helen Browning.

The Soil Association is a registered charity. Soil Association Certification Ltd is a subsidiary of the charity which undertakes certification. As a subsidiary company, any surplus income is passed on to the Soil Association charity to raise awareness, and develop and safeguard the entire organic sector.

Practical training in organic crop production and horticulture is currently very limited and existing growers struggle to find suitably skilled staff. In response to this situation, the Soil Association initiated the Organic Apprenticeship Scheme in 2007, working with its partners, the Organic Growers Alliance, the Organic Research Centre, Garden Organic and a number of organic growers. There was a fear that skills would be lost and a recognition that a scheme was needed to train up the next generation of skilled new organic growers.

Since we started the Organic Apprenticeship we have trained up over 30 new organic growers.

In 2013 we relaunched as the Future Growers scheme, introducing a six month minimum traineeship to complement the apprenticeship.

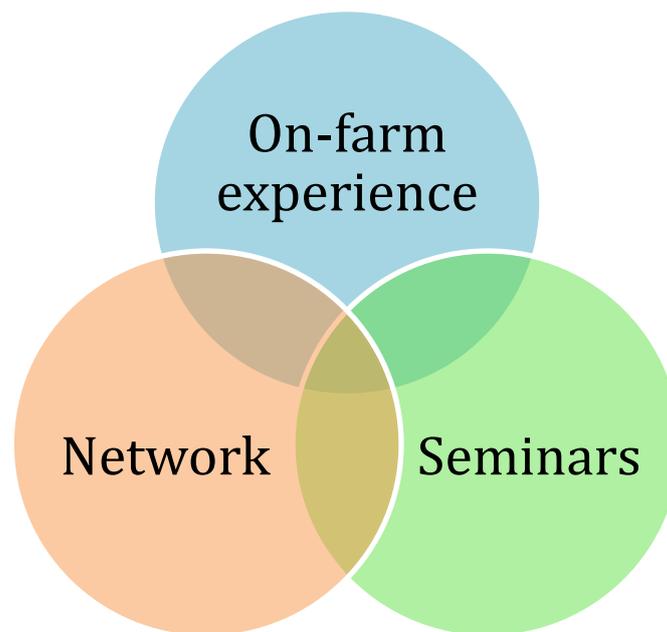
The Soil Association's Future Growers scheme provides

comprehensive training in organic horticulture, with participants working in paid positions alongside organic experts who are passionate about training the next generation and passing on their skills and knowledge. Farm-based work is combined with a series of structured seminars to build upon the practical knowledge gained out in the field.

Since its launch the Soil Association has received an increasing number of enquiries from people eager to join the programme – and develop a career in organic farming.

Future Growers scheme aims and objectives

The Soil **Association's Future Growers** scheme, including the Traineeship and Apprenticeship is designed to develop knowledge, understanding and practical skills in the principles and practice of organic horticulture through a combination of paid work-based training, structured seminars and access to a network of new and experienced growers, all underscored by formal and informal mentoring.



The central aims of the Future Growers scheme are to help the trainee/apprentice to:

- develop an understanding of the organic system based upon biological and environmental concepts
- attain a high standard of practical skill and knowledge
- relate the performance of the system to organic status, soil structure and biological activity

The Future Growers scheme aims to provide trainees/apprentices with the skills and associated knowledge necessary to plan an organic enterprise and to operate the production effectively. This includes the ability to:

- interpret the criteria for site selection, conversion and monitoring
- determine the role of manures and composts

- understand a system of weed, pest and disease control based upon the use of ecological and environmental concepts, including biological control.
- plan a crop rotation
- have a working knowledge of the operation and maintenance of a range of machinery and equipment

The scheme aims to stimulate the personal development and commitment of trainees/apprentices and in particular to:

- increase confidence in their own abilities by thinking for themselves
- allow them to adapt to change and embrace new technologies and to identify their own need to develop new understanding and skills
- make them aware of the possibilities for career development throughout the organic industry
- give them an understanding of the need and opportunities for re/training.

The Future Growers scheme strives to achieve a mutually beneficial relationship between the farmer or grower and the trainee/apprentice, accepting that the trainee/apprentice is there to learn but also to contribute to the business workforce.

Central to the scheme is the aim to develop a supportive learning community.

Management of the Future Growers scheme

The Future Grower scheme is overseen by a Steering Group, which is made up of key people within the organic horticultural industry, including host farms who oversee the scheme. The Steering group also includes a student representative from the Future Growers scheme.

Connecting the host farms, Future Growers, tutors and Steering Group is Rachel Harries. She acts as the programme lead as well as one of its core resources. She will be joined in 2015 by grower and former Future Grower Apprentice Kate Collyns. Together, they will work to make all

elements of the scheme as effective as possible and guide Trainees and Apprentices from placement and beyond.

After the scheme

When Trainees and Apprentices complete the scheme, they continue to be a part of the network of Future Growers, contributing to and learning from that community. The on-going connection offers inspiration to new entrants by exposing them to what possibilities await after graduating the scheme.

Laura Creen is the head grower at [School Farm CSA](#) in South Devon, just a few years after finishing an apprenticeship at Abbey Home Farm.

After an apprenticeship at Abbey Home Farm, graduate Alex Firman is now the co-ordinator at [FarmStart Manchester](#), teaching and guiding new growers.

Former Future Grower Jon Goodman is entering the second full season at his farm, [Ragmans Lane Market Garden](#) – a business he began with three friends after his apprenticeship at Daylesford Farm.

Alice Holden is now running [Dagenham Farm](#), growing organic veg for an urban community in east London.

Nick Johnson has moved to [Sheffield Organic Growers](#) to begin his own business after finishing an apprenticeship in West Wales at Troed y Rhiw Farm.

These former Future Growers now host the scheme for field trips, showing participants how what they are learning can be put into practice.

Teaching and learning methods

The Future Growers scheme offers a framework to empower the trainee/apprentice to develop their own knowledge and skills in organic horticulture through a range of learning and teaching tools. Trainees/apprentices are expected to take responsibility for their own learning and use all the resources available to them to the best of their ability.

One of the strengths of the scheme is that it draws on an enormous amount of industry expertise, tradition and culture, with all trainees/apprentices, visiting tutors and employers benefitting through this interaction.

The Future Growers Scheme offers the opportunity to learn the skills and knowledge as outlined in the Syllabus (Annex 1)

It is set up so that trainee/apprentices will learn from many different sources including:

- Host farms
- Mentoring sessions
- Expert tutors at seminars
- Farm tours
- Modules and hand outs
- Further reading and events
- Each other!
- The wider organic network

Work-based learning

Work-based practical instruction is the foundation of the learning process, providing an opportunity for the trainees/apprentices to learn through doing - in other words, emphasising the craft of horticulture and the practical application of organic principles.

Trainees/Apprentices should be engaged in as many parts of the business as possible, gaining an insight into all aspects of running the business as well as their technical learning.

Host growers find the time spent with trainees/apprentices very useful for them too.

Mentoring

Host farms are expected to provide on-going and regular mentoring from the start of the placement. This may happen weekly but we recommend that it averages out as:

Trainees 2 hours a month

Apprentices 4 hours a month

It is recommended that when a trainee /apprentice starts their placement, time is set aside to discuss what format their learning with the host farm and specifically the mentoring sessions, will take.

Mentoring sessions may involve the trainee/apprentice coming prepared with questions about things that have happened on the farm. There may be specific topics that you would both like to discuss, or themes that have been covered at the seminars. Alternatively mentoring may take place through an informal chat about the work that is going on.

It is important to regularly review how the mentoring sessions are working and adopt a different approach if necessary.

Some flexibility may be required e.g. during the busy parts of the growing season when it may be better to meet less frequently but for a longer period of time.

It may be that other skilled workers can occasionally undertake mentoring assuming they have sufficient knowledge and experience to answer the trainee/**apprentice's questions.**

Seminars

The main formal teaching method is the Future Growers seminars. The seminars are delivered by expert practitioners and leaders in their field. Soil Association staff and other members of the organic land-based industry are also invited to participate and deliver lectures, workshops and other events. They are hosted by beacon organic farms and provide an opportunity to visit other sites and see other business models in action.

The seminars are intended to provide an overview of the subject and a **starting point for trainees/apprentices' understanding of the topic.**

It is not expected that the tutor will cover everything in the module. More, it is an opportunity to hear a personal take on the subject, learning from the experiences of an organic practitioner who can illustrate the subject with real life examples.

They also help to identify areas of further study and can signpost trainees/apprentices to other farms, experts, events, reports, websites and more.

Through the seminars the trainees/apprentices will also gain confidence in handling, understanding, and discussing facts and ideas presented in the delivery of the core modules and specialist units and be able to translate them into practice on their host farms.

Seminars and field trips for trainees

Introductory Seminars - usually held in June

- Four days of intensive seminars, farm visits, films and talks with a range of organic experts as tutors. Includes: induction; plant biology (half day); organic principles, standards and certification (half day); introduction to organic growing, composts and manures.
- Tutors include: Iain Tolhurst, Roger Hitchings, Mark Stay, Ashley Pearson, Doug Stevens (Soil Association inspector)
- Farm visits include: Abbey Home Farm, Daylesford Organic Market Garden, Tolhurst Organics.
- Includes all meals, camping and transport out to farms.

Summer Field Trip - August

- Two days of farm visits and talks to icon organic farms.
- We vary the location each year, but previous farm visits have previously included: Troed y Rhiw, Blaencamal, Oakwood Farm, Barcombe Nurseries
- Inspirational speakers have included: Peter Seggers, Patrick Holden (ex director of the Soil Association)
- Includes all meals and camping and transport out to farms.

Final event

- One day informal farm visit
- Celebration of achievements
- Awarding of certificates
- Includes lunch

Other elements

- A dedicated supervisor to answer question about your placement, learning, seminars etc
- Access to closed google email/discussion group for all Future Growers (continues post traineeship)

- [Soil Association Producer Membership](#) for one full year, including one year subscription to [Organic Farming](#) magazines; access to a range of technical support resources and events
- Organic Farm Management Handbook
- Option to apply for sponsored places at key national organic conferences
- Opportunity to write for the Organic Grower magazine.
- A further year of careers advice and support post traineeship for example to help find work or set up your own business through contacts with the Soil Association and the [Organic Growers Alliance](#)
- Lasting relationships with experts in the organic farming and growing community

Seminars and field trips for apprentices

YEAR 1 - Introductory Seminars - usually held in June based at Abbey Home Farm

- Four days of intensive seminars, farm visits, films and talks with a range of organic experts as tutors. Includes: induction; plant biology (half day); organic principles, standards and certification (half day); introduction to organic growing, composts and manures.
- Tutors include: Iain Tolhurst, Roger Hitchings, Mark Stay, Ashley Pearson, Doug Stevens (Soil Association inspector) plus extra talks from Laurence Woodward
- Farm visits include: Abbey Home Farm, Daylesford Organic Market Garden, Tolhurst Organics.
- Includes all meals, camping and transport out to farms.

Summer Field Trip - August

- Two days of farm visits and talks on iconic organic farms.
- We vary the location each year, but previous farm visits have previously included: Barcombe Nurseries, Blaencamal, Hankham Organics, Oakwood Farm, Troed y Rhiw,
- When possible we invite inspirational speakers. These have included: Peter Seggars, Patrick Holden (ex director of the Soil Association)
- Includes all meals and camping and transport out to farms.

Advanced Seminars 1 - usually held in October, based at Abbey Home Farm

- Four days of intensive seminars, farm visits, films and talks with a range of organic experts as tutors. Includes: soft and top fruit, tractor skills; Tutors include: Tim Deane, Iain Tolhurst, Roger Hitchings, Gwen Eggington, Adam York, John Davenport, Sonia Oliver, Jade Bashford.
- Farm visits include: Abbey Home Farm, Coleshill Organics, North Aston Organics, Pershore College, Purton House, Westmill Organics, Whitethorn Farm, Worton Organics.
- Includes all meals, camping and transport out to farms.

YEAR 2

Winter Field Trip - February

- Two days of organic food and farming visits and talks
- We vary the location each year, but previous winter field trips have been to London and Manchester have included: Growing Communities Stoke Newington Farmers Market, Dagenham Starter Farm, Organiclea, Unicorn Grocery, FarmStart, Moss Brook Growers and Sheffield Organic Growers
- Inspirational speakers have included: Peter Seggars, Patrick Holden (ex director of the Soil Association)
- Includes all meals and accommodation and transport out to farms.

Summer Field Trip – as above

Advanced 2 Seminars - usually held in October, based at Abbey Home Farm

- Four days of intensive seminars, farm visits, films and talks with a range of organic experts as tutors.
- See Advanced 1 for potential farm visits and tutors
- Includes all meals, camping and transport out to farms

Self organised final event

Second-year apprentices plan and produce a self-organised visit, resulting in a field trip that is fully representative of the interests of **that years' Future Growers.**

- Two day field trip organised by apprentices to sites of their choice

- Includes a final evaluation and next steps seminar to help apprentices reflect and plan their next steps
- Previous visits have included: Grown Green, Chagfood Community Market Garden and Trill Farm
- Includes all meals, accommodation and travel costs.

Other elements

- A dedicated supervisor to answer question about your placement, learning, seminars etc
- Access to our closed google email/discussion group for all Future Growers (continues post traineeship)
- Soil Association Producer Member for three full years, including one year subscription to [Living Earth](#) and [Organic Farming](#) magazines; access to a range of technical support resources and events
- Organic Farm Management Handbook
- Option to apply for sponsored places at key national organic conferences
- Opportunity to write for the Organic Grower magazine.
- A further year of careers advice and support post traineeship for example to help find work or set up your own business through contacts with the Soil Association and the [Organic Growers Alliance](#)
- Lasting relationships with experts in the organic farming and growing community
- On-going support to help find work or set up your own business through contacts with the Soil Association and the [Organic Growers Alliance](#)

The network

“All of us knowing each other is a valuable resource to begin with,”
(Alex Firman, Future Grower 2012-2014).

In addition to on-farm learning, mentoring and seminars, trainees and apprentices enrich their education by participating in the virtual and in-person network made up of their fellow Future Growers.

All Future Growers are linked by a closed google group of trainees and apprentices past and present, offering a sounding board for technical questions as well as an easy way to stay in touch about all aspects of the Future Grower experience. The group is also used to promote job

and land opportunities so that Future Growers get to hear of them first.

And after the scheme is done, those connections continue as the network grows.

Project (apprentices only)

The Future Growers scheme requires apprentices to produce a project. Apprentices are encouraged to seek out a subject or issue of interest to explore in depth. This is an important part of the scheme and enables the apprentice to:

- develop an innovative approach to problem solving
- apply the knowledge and skills acquired throughout the scheme
- develop the **apprentice's ability to communicate ideas**
- develop the **apprentice's inter**-personal skills

It is expected that the mentor plays a key role in helping the apprentice to develop and deliver their project. As a guideline the project should be between 5,000 and 8,000 words, though it could also take the form of a project diary or film of a practical project.

The apprentice is expected to submit the project to the Course Manager on or before completion of the apprenticeship.

More details on the project can be found in Annex 2.

Employment conditions

The trainee/apprentice is employed by the host farm and as such should have a contract of employment which details pay, hours, holiday etc.

The host farm is responsible for paying the trainees'/apprentices' wages and ensuring that their pay and conditions are in line with National Minimum Wage rates. See <https://www.gov.uk/national-minimum-wage-rates>

Note that the rates listed for trainees and apprentices do not currently apply to this scheme. All other conditions, including work breaks and holidays, are in accordance with Agricultural workers rights. See <https://www.gov.uk/agricultural-workers-rights/pay-and-overtime>

Employment must be for at least 30 hours per week with approximately 80% of time spent in horticultural activities. Any variation on this must be agreed with the Soil Association. There may be some variation here due to weather or other circumstances, particularly outside of the growing season (within the winter months) however this must be in agreement with the trainee/apprentice.

Trial periods

The Soil Association recommends that the following trial periods are adopted:

Trainees 1 month

Apprentices 3 month

All trainees/apprentices will be given an induction into their role which will include what they can expect to learn during their placement and how and when mentoring will take place.

Mentoring should take place throughout the trial period to allow both parties to fully experience the trainee/apprentice/host relationship. At the end of these trial periods, the host farm needs to communicate to the trainee/apprentice and the Soil Association that the placement is confirmed.

Host farms

Host farms in the Future Growers scheme are chosen because of their knowledge and commitment to organic practices, and their ability and enthusiasm to train the next generation of organic growers.

Host farms recognise a commitment to provide training, support and mentoring which may go further than that provided for casual employees.

Admission

The Future Growers Scheme is open to everyone aged 16 or over who is eligible to work in the UK. Some relevant work experience (including voluntary) is desirable and high standards of commitment and behaviour are essential.

Trainees/Apprentices may start with their employer at any stage prior to the start of the introductory seminars which take place in late spring or early summer.

Trainees/Apprentices are interviewed by the host farm and then offered a placement.

Once the trainee/apprentice has been offered a placement they can enrol onto the Future Growers scheme. This requires them to:

- provide a copy of their CV or application to their host farm
- sign the Future Growers agreement
- pay their deposit (see below)

Fees

Course fees to participate in the Future Growers Scheme are as follows:

Trainees £950.00

Apprentices £3200.00

Deposits

A non-refundable deposit of £350 is to be paid either upon completion of the trial period or prior to the start of the first seminars, whichever happens first.

Payment plans

Trainees are required to pay the remainder of the fees either in one instalment of £600.00 or by four direct debit instalments of £150.00 a month. The first payment will be set up once the trial period is completed.

Apprentices are required to pay the remainder of the fees in one instalment of £2850.00 or by direct debit in monthly instalments of £142.50 in 20 months.

Some potential sources of funding are listed on our website on the fees page.

Any refunds to fees are made according to the Refund Policy, available on request.

Assessment

Assessment within the Future Growers Scheme takes place in several ways:

- Continual assessment throughout the work placement is done by the mentor.
- Logbook. The trainee/apprentice is expected to complete a logbook to record their progress. This includes the **“Record of Skills Form”**, where competency in a number of key tasks is recorded. The logbook is signed off by the mentor.
- Apprentices are also assessed through the project and are expected to give a formal presentation of their project to their year group at the final sessions.

Trainees/ apprentices are assessed on a pass or fail basis.

Some modification of the assessment process may be necessary to ensure that the methods are suited to the trainees/apprentices.

A trainee/apprentice may request a review where there are exceptional circumstances, which may have significantly affected their performance.

Obligations

The success of the Future Growers scheme is dependent on all parties meeting certain obligations. These are outlined here. All parties are required to sign a contract agreeing to meet these obligations as far as is reasonably possible.

The Soil Association

The Soil Association commits to ensuring that all Future Grower trainees and apprentices receive the tuition and learning support associated with the scheme, as far as reasonably possible.

The Soil Association agrees to provide:

- In-depth seminars at inspiring organic farms, learning about organic principles and the practices of growing and farming
- Learning resources appropriate to the scheme outline
- Further signposting to relevant resources and events
- Facilitation of the network of past and present Future Growers
- Soil Association Producer Membership for one year for trainees and three years for apprentices, including subscription to **Soil Association's Organic Farming and Living Earth magazine** along with other relevant reports and publications
- On-going support in developing your organic business or career, where possible
- Additionally, trainees/apprentices are eligible for a discounted membership rate with the Organic Growers Alliance. The £15 Student/Apprenticeship Membership is the equivalent of a £35 Associate Membership and includes:
 - Digital access to quarterly magazine, back issues and online-only technical articles contributed by experienced members
 - Access to ask questions on the OGA web forum, offering a wealth of member experience
 - Access to information about upcoming events, job opportunities and announcements exclusive to members
 - Discounted rates to many events aimed at OGA members

The Soil Association will make all reasonable efforts to deliver the scheme as outlined in the handbook. We reserve the right to alter the programme if necessary but commit to informing you of any changes as early as possible.

The Soil Association commits to treating all trainees/apprentices fairly and on an equal basis.

The Trainee/Apprentice

The trainee/apprentice commits to take responsibility for their own learning, working in partnership with the host farm and the Soil Association to gain all the experience necessary to achieve the aims of the scheme.

The trainee/apprentice agrees to:

- Act in a professional manner while on the work placement, undertaking all work to the best of their ability and according to the contract of employment
- Attend all seminars and events that are required as part of the Scheme, undertaking any necessary preparation, being punctual and at all times conducting themselves in an appropriate manner.
- Pay all fees for the scheme according to the terms laid out in the handbook.
- To notify both the Soil Association and the host farm of any changes to their circumstances that may have an impact on their participation in the Scheme.

The host farm

Host farms commit to ensuring that the trainee/apprentice experiences a rich learning environment, while recognising that they are there to work.

The host farm agrees to:

- Provide paid employment according to national minimum wage standards (AWO 2013)

- Provide the opportunity to work in as many different areas of production as possible (eg soft and top fruit, protected cropping, propagation). For apprentices, host farms should also be able to involve the apprentice in the business planning, budgeting, marketing, longer term planning as well growing.
- Ensure their farm is a safe place to work, with that good health and safety procedures adhered to.
- Provide regular 1 to 1 mentoring
- Allow flexibility to allow the trainee/apprentice to attend Future Grower seminars events.
- Raise any issues with performance as early as possible in a manner consistent with standard employment law.
- Notify both the Soil Association of any changes to their circumstances that may have an impact on participation in the Scheme.

Disputes

It is important that grievances and disputes between the Soil Association, the host farm and/or the trainee/apprentice, are dealt with as early as possible. Any concerns that cannot be resolved locally should be raised with the Future Growers scheme manager.

It is also important that employers understand their obligations regarding discipline, grievances and dismissals.

The Advisory, Conciliation and Arbitration Service (Acas) contains a wealth of information in dealing with disputes and conflict and is a vital resource on all issues related to creating better employment relations. More details here: <http://www.acas.org.uk>

Disputes regarding the Future Growers scheme that cannot be resolved informally will be referred to an Acas approved mediation service.

Annex 1: Future Growers Syllabus

Traineeship and Apprenticeship Core Modules			
Code	Title	Practical skills Future Growers should be able to:	Knowledge Future Growers should be able to:
1	Organic principles, standards and certification	Not Applicable	<ul style="list-style-type: none"> • Understand the underlying principles of organic production • Identify organic food production as a system working with nature and avoiding the use of chemicals • Be aware of practical methods used to adopt the principles of organic production • Differentiate between the national and international organisations involved in organic standards
2	The Living Soil	<ul style="list-style-type: none"> • Determine texture and structural state of soil through visual and touch assessments • Identify potential nutrient deficiencies by observation of crop • Prepare ground for seeding and planting and create good tilth for a range of direct sown crops. Students should be able to do this manually (though for many crops machinery may be used) 	<ul style="list-style-type: none"> • Understand the importance of soil organisms to the health of the soil • Be able to identify different soil types based on texture and structure • Understand the importance of a good soil structure and how it relates to plant health • Understand the link between soil fertility and organic matter content and why it is important in organic farming systems • Understand the role of oxygen and good aeration in the soil

			<ul style="list-style-type: none"> • Understand the role of soil analysis on the organic farm • Understand the nitrogen and carbon cycles and their role in soil health • Be able to identify drainage issues within the soil • Be able to identify soil erosion and its causes
3	Plant biology - including classification and seeds	<ul style="list-style-type: none"> • Demonstrate effective plant selection for seed, seed saving and storage techniques • Be able to carry out a new variety trial on their holding 	<ul style="list-style-type: none"> • Understand plant classification systems and basic plant biology • Have knowledge of plant structure and hormones • Understand the process of seed production (organic and conventional), including regulatory framework • Be aware of the pros and cons of F1, open pollinated and other seed types • Understand the importance of variety selection, seed quality, viability and disease resistance • Be aware of national trial sites and the organisations that are carrying out organic seed research • Understand the concept of seed saving
4	Introduction to organic crop production	<p>Composts and manure</p> <ul style="list-style-type: none"> • Demonstrate the involved in building and maintaining an effective compost system (i.e. aerating, covering, etc) 	<p>Composts and manure</p> <ul style="list-style-type: none"> • Understand the role of composts and manures in enhancing the soil

		<ul style="list-style-type: none"> • Apply compost or manure to a rotation to maximise benefit to crop <p>Rotations</p> <ul style="list-style-type: none"> • Be able to identify crop families • Plan and carry out successful rotations <p>Weed, pest and disease control</p> <ul style="list-style-type: none"> • Identify a wide range of weeds (we suggest 5 annual and 5 perennial) and manage them effectively in relation to the protection of particular crops • Identify a range of common crop diseases (we suggest 5) and understand how to control them • Identify a range of common pests and beneficial insects (we suggest 5 of each) and understand the techniques to control/encourage them 	<p>Rotations</p> <ul style="list-style-type: none"> • Understand the core rotational practices used in organic systems <p>Weed, pest and disease control</p> <ul style="list-style-type: none"> • Understand the principles of weed, pest and disease management in organic systems
Future Growers Apprenticeship Advanced Modules			
5	Propagation	<ul style="list-style-type: none"> • Demonstrate the ability to successfully raise crops (within their own requirements) through the following processes: <ul style="list-style-type: none"> - Sowing (direct and in modules) - Hardening off/transplanting/thinning 	<ul style="list-style-type: none"> • Understand the different methods of propagation • Be aware of the pros and cons of doing your own propagation vs buying plants in • Understand the requirements for propagation using seed, cuttings, layering

		<ul style="list-style-type: none"> - Protecting - Pinching out 	<p>and division</p> <ul style="list-style-type: none"> • Be aware of the facilities that would be required to propagate on farm • Be aware of the importance of hygiene and plant care in the propagation process • Be aware of ideal properties of propagation compost
6	Compost and Manure	<ul style="list-style-type: none"> • Demonstrate the processes behind building and maintaining an effective compost system (i.e. aerating, covering, etc) • Apply compost or manure to a rotation to maximise benefit to crop 	<ul style="list-style-type: none"> • Understand the role of composts and manures in enhancing the soil • Understand the principles of recycling and reusing waste on-farm • Be aware of other sources of fertility to help with soil management
7	Rotations and fertility building	<p>Demonstrate the ability to successfully raise crops (within their own requirements) through the following processes:</p> <ul style="list-style-type: none"> • Identify crop families to plan and carry out successful rotations • Inter-cropping • Under-sowing 	<ul style="list-style-type: none"> • Understand the role and importance of soil fertility • Be aware of different methods for improving soil fertility • Understand what nutrient budgeting is and be aware of the major nutrient requirements of plants • Recognise the role of soil analysis and why it is important • Understand the core rotational practices used in organic systems • Understand how to manage and develop a rotation • Be aware of when and how soil compaction

			occurs within a rotation
8	Weed, pest and disease control	<ul style="list-style-type: none"> • Identify wide range of weeds (we suggest 10 annual and 10 perennial) and manage them effectively in relation to the protection of particular crops • Practice weed control using a range of methods • Identify a range of common crop diseases (we suggest a target of 10) and have an understanding of how to control them • Identify a range of common pests and beneficial insects (we suggest a target of 10 of each) and understand how to control/encourage them 	<ul style="list-style-type: none"> • Understand the principles of weed pest and disease management in organic systems • Be aware of available chemical controls in organic systems • Understand how to monitor pest and disease occurrence on farm • Be aware of the effect of weed populations in organic systems • Be aware of biological control methods for pest and disease control
9	Protected cropping	<ul style="list-style-type: none"> • Carry out a range of protected cropping techniques including: <ul style="list-style-type: none"> - managing the environment in a protected cropping area, through ventilation, irrigation and damping down - building and managing cloches - maintaining poly tunnels (including re-covering) - laying and maintaining floating mulches (removing and storing) - maintaining 	<ul style="list-style-type: none"> • Understand how to use a range of protected cropping environments to extend the season and grow tender plants • Understand how to maintain the long and short term fertility in a protected cropping environment • Know what factors need to be assessed before siting a tunnel or glasshouse and understand the relevant planning regulations • Be aware of the pros and cons of polythene tunnels versus glasshouses • Understand a range of irrigation and climate

		glasshouses/constructing other barriers (i.e. fencing, raised beds, etc)	<p>control systems for protected cropping environments</p> <ul style="list-style-type: none"> • Be aware of the major pest and disease threats in protected cropping environments and know how to deal with them • How to control weeds in protected cropping environments
10	Handling and storage	<ul style="list-style-type: none"> • Be competent at efficiently harvesting a range of crops • Demonstrate the techniques for storing a range of crops (eg clamps) • Be able to grade a range of crops for storage (we recommend 5) 	<ul style="list-style-type: none"> • Recognise the opportunities for mechanical harvesting and the risks involved • Understand the options for packing and storing organic produce • Understand the regulations that apply to washing and packing organic produce • Understand the benefits of storing crops • Be aware of the storage requirements and methods for a range of crops • Be aware of some common storage problems and how to minimise the risk of them occurring
11	Tools and machinery 1	<ul style="list-style-type: none"> • Be competent at using a range of hand tools and machinery, including hand rotavators, wheel hoes, seed drills, mowers and strimmers 	<ul style="list-style-type: none"> • Understanding when to use a tool or piece of machinery
12	Tools and machinery 2	<ul style="list-style-type: none"> • Be competent at driving and attaching implements to a tractor • Be able to use a range of irrigation systems, both manual and automatic 	<ul style="list-style-type: none"> • Understand how different soil types should be cultivated • Be able to recognise the best method of cultivation and the appropriate timing

		systems	<ul style="list-style-type: none"> • Be able to recognise the appropriate machinery for a range of tasks, and understand the benefits and drawbacks to its use • Understand what “water holding capacity” is and how to assess it. • Assess the need of a range of crops for irrigation
13	Soft and top fruit production	<p>Soft fruit production</p> <ul style="list-style-type: none"> • Carry out the following within the requirements of individual soft fruit crops: <ul style="list-style-type: none"> - Planting - Propagating - Training and pruning - Protecting - Identify pests and diseases - Weeding - Harvesting <p>Top fruit production</p> <ul style="list-style-type: none"> • Carry out the following within the requirements of individual top fruit crops: <ul style="list-style-type: none"> - Planting - Training and pruning - Identify pests and diseases 	<p>Soft fruit production</p> <ul style="list-style-type: none"> • Identify the organic standards relating to soft fruit production • Understand the marketing requirements for soft fruit • Understand the site and establishment requirements for an organic soft fruit orchard • Recognise the factors affecting varietal choice for organic soft fruit production • Explain of the management requirements of an organic soft fruit orchard • Understand the harvesting requirements • Understand the packing and storage requirements <p>Top fruit</p> <ul style="list-style-type: none"> • Understand the site and establishment requirements • Understand a range of formative and

		<ul style="list-style-type: none"> - Weeding - Harvesting 	<p>maintenance training and pruning systems</p> <ul style="list-style-type: none"> • Understand how to manage fertility in an organic orchard • Understand how to manage pests and disease Understand the classification system for top fruit • Understand how to harvest top fruit to ensure maximum marketable yield
14	Marketing and business	<ul style="list-style-type: none"> • Carry out business planning • Understand the market they are growing for • Undertake realistic pricing of produce for different markets (eg retail, wholesale) and know where to look for price comparisons • Be competent at marketing their produce through a variety of different routes to market, eg: <ul style="list-style-type: none"> - Box schemes - Farmers Market - Farm Shop - Restaurants - Public procurement 	<ul style="list-style-type: none"> • Understand the elements of business planning • Understand the concept and benefits of conducting a SWOT analysis • Understand how to carry out market research relevant to organic food businesses • Understand how to set pricing for a product • Understand how to promote their business and products • Understand a range of local marketing options for organic produce • Recognise the different models and benefits of community supported agriculture (CSA)

Annex 2: Tutors and hosts

The following are some of the expert organic farmers and growers that teach or host field trips on the Future Growers scheme:

Tim Dean runs one of the longest running veg box schemes in the country from [Northwood Farm](#) in Devon. He leads the module on weed, disease and pest control.

Andy Dibben worked as head grower at the [Community Farm](#) in Bristol where he mentored many trainees. His new role as head grower at [Abbey Home Farm](#) includes passing knowledge on to the next generation through mentorship of apprentices as well as running a beautiful market garden.

Pete Dollimore of [Hankham Organics](#) uses his extensive experience of growing under cover to lead the module on protective cropping.

Gwen Egginton is an experienced grower and holds a PhD in Soil Science. She runs [Green Growers](#) and teaches the Compost and Manure module.

Huw Evans is the owner of [Sheffield Organic Growers](#), an innovative **land access project including Huw's Hazelhurst Fruiterie and former Future Grower Nick Johnson's new enterprise.**

John Everest is academy manager at [Perschore College](#) and leads the advanced module on tractor skills.

Alex Firman is a graduate of the Future Growers scheme and is now the co-ordinator at [FarmStart Manchester](#), teaching new growers in their programme.

Roger Hitchings has acted as an expert for the [Organic Research Centre](#) and others on a wide variety of topics relating to organic horticulture. He leads the introductory module on soil for the Future Growers scheme.

Stuart Jones and Rob Alderson run [Moss Brook Growers](#), a farm in Greater Manchester on land owned by Unicorn Grocery – where Stuart also works.

Ashley Pearson and his partner run a flourishing flower growing business in Oxfordshire called [Green and Gorgeous](#). Ashley leads the introductory module on plant biology.

Nathan Richards farms at [Troed y Rhiw](#) in West Wales. A keen salesman, Nathan sells at area markets year-round, as well as runs a box scheme.

Martin Soble runs [Whitethorn Farm](#), a thriving and diverse farm business in Herefordshire. He leads the module on soft and top fruit.

Mark Stay farms at [North Aston Organics](#) in Oxfordshire, running a box scheme and market stall to sell his products. He leads the introductory module on propagation.

Doug Stephens is an inspector for the Soil Association and will lead the introductory module on organic principles and certification.

Jez Taylor runs the market garden at [Daylesford Farm](#) in Gloucestershire. He has mentored past apprentices that have gone on to start farms of their own and he often leads a farm walk during the **group's visit to the property in June.**

Iain Tolhurst – Tolly owns and farms one of the longest running organic farms in the UK, [Tolhurst Organic](#). He has mentored and inspired many farmers over the years and leads the introductory module on vegetable production in June and rotations and fertility building in October.

Adam York is a founder of Unicorn Grocery in Manchester and now owns and farms [Glebelands Market Garden](#) in Wales. He will lead the advanced module on handling and storage.

Annex 3: Organic farms involved in the Future Growers scheme

The Soil Association's Future Growers scheme is supported by some of the most inspiring and innovative organic farms, markets gardens and businesses in the UK. The following are just some of those involved either as placement hosts or sites for seminars and field trips.

[Abbey Home Farm](#)

[Barcombe Nurseries](#)

[Dagenham Starter Farm](#)

[Daylesford Organics](#)

[FarmStart Manchester](#)

[Hankham Organics](#)

[Moss Brook Growers](#)

[North Aston Organics](#)

[OrganicLea](#)

[Pershore College](#)

[Purton House](#)

[Sheffield Organic Growers](#)

[Stoke Newington Farmers Market](#)

[Tolhurst Organics](#)

[Troed y Rhiw](#)

[Unicorn Grocery](#)

[Whitethorne Farm](#)

[Westmill Organics](#)

[Worton Organic Garden](#)

Annex 4: Project guidelines (apprentices only)

This document provides a broad introduction to the project apprentices complete as part of the Future Growers Scheme. It describes the purpose of the project, gives details of when the various stages should be completed and gives some guidance on what you might choose to do.

There is also the opportunity for projects to be published on the Soil Association Future Growers and the Organic Growers Alliance websites.

The purpose of the project

The project is designed to give you an opportunity to use your imagination and interests to explore one aspect of farming or growing in more detail.

Deadlines

Stage 1: Proposal	By the end of the first year of your placement
Stage 2: First draft	Six months before the end of your placement
Stage 3: Submission	The end of your placement

Stage 1: Proposal

You should start to think about what topics might interest you once you begin your placement. It would be helpful to involve your mentor at this point as the project should also be related to the holding you are working on. Stage 1 requires the submission of a draft project plan using the following headings:

- a. Working title (20 words)
- b. Short description of what you intend to research, showing its relevance to the holding you are working on (no more than 200 words)
- c. A brief description of the sources you plan to use to research your project (a minimum of two sources should be listed) (50 words) maybe a couple of examples, SA literature, fruit expert etc

The draft project plan should be submitted to Rachel Harries at the Soil Association either by email to rharries@soilassociation.org or by post to Soil Association, South Plaza, Marlborough Street, Bristol BS1 3NX.

Stage 2: First draft

You will need to submit the first draft of your project. The project can be produced in any format you choose e.g. written, film etc.

Suggested written format

- a. Introduction explaining what the project is about and summarising what you will discuss
- b. Main aspects you need to consider for your chosen topic. This should follow a logical progression and where possible relate back to the benefits for your holding. It would be a good idea to look back at the topics you listed in the draft project plan to help you with this.
- c. Conclusion which summarises the main points and looks at how easy/difficult it would be for your holding to employ any suggestions you make in your project. You should not include any new information in your conclusion.

You should submit your first draft as above (for the draft project plan). Your draft will be reviewed and then returned to you with comments and suggestions for how you could add to it.

Stage 3: Submission

For stage three you will need to submit your project in its final form. You should take into account any comments and suggestions made by the project review team and make sure these have been incorporated into your final version.

Format

We recommend that your project is supplied in pdf format. Please make sure you include the following:

- Your name
- Some background about yourself and the host farm
- The fact that your project has been undertaken as part of the Soil Association Future Growers scheme in the title or information page

Role of your mentor in your project

You should involve your mentor in all stages of your project, from deciding on the topic (for instance so that it benefits your host farm), through to research, implementation and write up. It is important to use your mentoring sessions as an opportunity to discuss your progress.

Examples of previous projects can be viewed on the Future Growers website.

Example project plan

Planning a top fruit orchard

Stage one

Title: Creating a plan for a 1 hectare orchard of local varieties at X farm

Short description: I will look at suitability of site, possible local fruit varieties suited to organic production, management and planting systems, weed pest and disease burden etc

Sources: local suppliers, Soil Association briefing papers, fruit books, experienced fruit growers

Stage 2

Introduction: This project will look at planning and planting a top **fruit orchard using local varieties. It will discuss**

Main aspects: Firstly I assessed all the fields on the farm and, then I worked out how many trees would fit by doing X, then what varieties and rootstocks I might use and how easy they would be to source etc

Conclusion: Would this be a good enterprise for x farm to undertake based on your research, give reasons for and against

Annex 5: Suggested reading

This is a list of reading materials on organic farming and growing which you may find useful. These books are by no means compulsory but could help widen your knowledge and reinforce what you have already learnt.

The Soil Association has a wide range of books available (including some listed below). Look for current titles at

www.soilassociation.org/shop

Core Texts

Lampkin, Measures & Padel: "Organic Farm Management Handbook 2014"

Eve Balfour: "The Living Soil"

Tom Batey: "Soil Husbandry: a practical guide to the use and management of soils"

Gareth Davies & Margi Lennartsson: "Organic Vegetable Production: a complete guide"

Jenny Hall & Iain Tolhurst: "Growing Green: Organic Techniques for a Sustainable Future"

Gareth Davies & Becky Turner: "Weed Management for Organic Farmers, Growers and Smallholders: A Complete Guide"

Andy McKee and Mark Gatter: "The Polytunnel Handbook"

NIAB Organic Vegetable Handbook 2007

Mandy Pullen: "Valuable Vegetables: Growing for Pleasure and Profit"

Simon Hickmott: "Growing Unusual Vegetables: Weird and Wonderful Vegetables and How to Grow Them"

Stella Cubison: "Organic Fruit Production and Viticulture"

Charles Dowding: "Organic Gardening the Natural, No Dig Way"

Lawrence D Hills: "Organic Gardening"

Eliot Coleman: "New Organic Grower" - classic text – great for inspiration

J O Baker: "The complete market gardener" and "2 acres and freedom"
"RHS Fruit Garden Displayed/Vegetable Garden Displayed"

Organic Texts

Francis Blake: "Organic Farming and Growing"

J Newton: "Profitable Organic Farming"

N Lampkin: "Organic Farming"

Soil Association Technical Guide: "Soil Management on Organic Farms"

General Interest

Philip Conford: "Origins of the Organic Movement"

Sir Albert Howard: "An agricultural testament"

F Sykes: "Humus and the farmer"

Newman Turner: "Fertility Farming"

Vandana Shiva: "Soil Not Oil"

Dr Elaine Ingham: "The Compost Tea Brewing Manual"

Sir Albert Howard: "Farming and Gardening for Health or Disease"

Lionel Picton: "Thoughts on Feeding"

John Steinbeck: "The Grapes of Wrath"

Masanobu Fukuoka: "The One Straw Revolution"

Rachel Carson: "Silent Spring"

EF Schumacher: "Small Is Beautiful: Economics As If People Mattered"