

**Organic Horticultural Production:  
An introductory guide**

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## **ABOUT THIS BOOKLET**

This booklet is part of a range of short introductory guides that are designed to help anyone who is thinking about starting an organic enterprise. It is not intended to be a comprehensive guide but aims to answer the most common questions.

The booklets must be read together with the standards of your organic certification body. For example, if you are a Soil Association Certification Ltd licensee then you should read the full *Soil Association Organic Standards*.

## **SOIL ASSOCIATION TRADE AND PRODUCER SUPPORT**

The Soil Association's trade and producer support department is an independent membership-based team within the Soil Association charity, dedicated to helping farmers, growers, primary processors – and the wider organic sector. We are independent of the organic certification process and are here to provide you with information, advice and support.

To find out more about the benefits of producer membership see the rear pages. Alternatively, call us on **0117 914 2400** and we will be happy to help discuss any membership queries you have, or any other questions arising from this booklet.

## **The aim of organic horticulture**

Organic horticulture seeks to produce healthy, good quality food in an ecologically responsible way, for which the grower gets a fair return. The system is designed to avoid the need for agrochemicals and to minimise damage to the environment and wildlife.

Growers apply sustainable management practices to maintain optimum natural fertility and biological activity in the soil, and to enhance the farm environment by encouraging farm wildlife. This helps to support plenty of natural predators, thereby preventing pests and diseases from reaching damaging levels.

A healthy soil helps produce crops that are better able to resist pests and diseases. Healthy crops ultimately mean healthy food.

## **Organic conversion**

### **What is the purpose of the conversion period?**

Organic production is governed by UK and EU legislation. Part of this legislation specifies a conversion period before any land or products can be marketed as organic. This period provides time to start establishing organic management techniques, build soil fertility and biological activity, as well as to develop a viable and sustainable agro-ecosystem.

During the conversion period you will have time to gather information, develop your markets and embark on the learning curve that commencing organic farming brings. It also allows time for the break down of any traces of agrochemical residues left in the soil from previous management practices.

### **How long will it take to convert my land to organic?**

You will need to go through a two-year monitored conversion period before your land gains organic status. Once the conversion period is complete, the next crop planted into the organic soil can be sold as organic. For perennial crops (excluding grassland) the conversion period lasts 36 months. In certain circumstances you may get a short reduction in the conversion period of four months if you can prove that no prohibited inputs were used on the land for at least the same period before the start of conversion. Contact your organic certification body if you think you may be eligible.

### **What is the best time of year to convert?**

To harvest an annual organic vegetable crop you must sow organic seed into fully organic land. So, with annual vegetable crops it is advisable to time your conversion so that your land finishes conversion and gains its organic status at the right time of year for planting. This ensures the minimum amount of time between starting your conversion period and

harvesting your first organic crop. With annual vegetable crops it may be best to start conversion pre-planting time in the spring.

If you are converting an established perennial crop, such as with an orchard, it is advisable to start your conversion period pre-harvest time in the autumn. In this way you can harvest your first organic crop immediately after the end of your conversion period, ensuring the shortest amount of time between start of conversion and sale of the first organic crop.

## **If I convert who will buy my organic produce?**

This must be the first question that you ask yourself: just being organic is not enough to guarantee a market and you will need to develop your market and grow the crops to meet it.

A range of information is available to help you identify and develop a suitable market. The Soil Association trade and producer support department fact sheet *Marketing Information for Organic Growers* provides further useful information and contacts. The Soil Association also produces an annual *Organic Market Report* which gives a useful market overview, while the regular 'Eye on the market' feature in the Soil Association *Organic Farming* magazine highlights recent market trends and prices. Horticultural prices and market information is also available from the trade and producer support department website at [www.soilassociation.org/pricedata](http://www.soilassociation.org/pricedata)

## **Will I need to get my soil tested?**

No, but regular soil tests are strongly recommended. They help to build a picture of the present levels of N, P and K, as well as minor trace elements in your soil. Organic matter tests are also recommended. Soil tests can help with planning your rotation by identifying where particular deficiencies or abundances lie.

Under organic management, a soil analysis may be needed to show specific nutrient deficiencies before your organic certification body allows the use of restricted fertilisers or minerals. Contact the trade and producer support department for details of companies offering soil testing and the fact sheet *Fertilisers for Use in Organic Production*.

## **Can I grow both organic and non-organic produce?**

Organic production must take place on clearly defined units of land. The production and storage areas should also be clearly separate from any other unit not producing to organic standards.

Growing the same crop on a mixture of organic and non-organic land on the same holding is known as 'parallel production', and is not allowed.

In annual crops, parallel production would only be allowed if a different and easily differentiated variety is grown on each differently designated area of land.

For perennial crops, parallel production can only take place if the conversion plan undertakes to convert the whole area concerned within five years, or appropriate segregation measures have been discussed and approved by your certification body.

For further information see the *Soil Association Organic Standards*.

## **Can I sell crops as in-conversion?**

One of the aims of the conversion period is to build soil fertility and biological activity, so it is best to take a long term view and use the conversion period for this purpose.

However, if a conversion period of at least 12 months has been completed before harvest then your crop may be marketed as 'in-conversion'. This is especially useful when converting an orchard. There is a market for in-conversion produce where there is an understanding of organic systems, and in some cases it may be possible to sell at a price above that of non-organic produce.

It is important to talk to your certification body about the labelling of in-conversion products. SA Certification licensees can market in-conversion crops under the description 'Soil Association approved organic conversion' once they have been through at least 12 months organic management and they have had in-conversion crops added to their trading schedule.

## **Conversion grants**

### **What government grants are available?**

The following schemes are available to farmers undertaking conversion to organic production:

- Organic Entry Level Stewardship for England
- Organic Farming Scheme for Wales
- Organic Aid Scheme for Scotland
- Organic Farming Scheme for Northern Ireland.

These schemes aim to encourage the expansion of organic production in the UK and offer producers moving from non-organic farming methods to organic farming methods financial help during the conversion period. This takes the form of a 'per hectare' payment, dependent on the type of land they have.

There are specific requirements to qualify for the schemes, so it is essential to read the eligibility criteria in full. The schemes vary slightly as regards rules and levels of payment.

Before you can apply for any of these schemes, you must have registered your land as 'in-conversion' with an organic inspection body, such as SA Certification. A copy of your certificate of registration must be submitted with your completed application. If your land is not yet 'in-

conversion' you will need to contact Soil Association Certification Limited for an application pack as soon as possible.

Each scheme varies slightly according to its requirements and eligibility for payment, as well as the levels of payment. Please contact the trade and producer support department for further information and relevant factsheet on **0117 914 2400**.

Application forms and full explanatory booklets are available from the various government offices. Full contact details can be found at the end of this booklet.

## **Rotation design and fertility management**

### **Why do I need a crop rotation?**

A balanced rotation is the cornerstone of an organic system. Why?

- It varies the demands on the soil
- Provides the nutritional requirements of the crop
- Helps the build-up of fertility by means of grass/clover leys, green manures and appropriate manure applications
- Limits the spread of diseases
- Controls weeds
- Provides a break to pest lifecycles.
- Keeps the nutrient loss to a minimum.

An adequate rotation is the only effective control for soil-borne diseases, such as potato cyst nematodes, onion white rot or club root in brassicas. The rotation should be planned to allow the longest possible period between growing the same family on the same piece of land.

*Soil Association organic standards* also specify that a minimum of three seasons must elapse before potatoes, alliums and brassicas return again to the same area of land. They also require that a field rotation must include a legume to supply nitrogen for following crops.

### **What is a suitable horticultural rotation in practice?**

A suitable rotation would take into account the following basic principles:

- Shallow rooting crops following deep rooted crops
- High root mass crops following low root mass crops
- Weed susceptible crops following weed suppressing crops
- Nitrogen fixing crops following nitrogen demanding crops
- A recommended rotation could be: two years grass clover ley/ potatoes/legumes/brassicas/green manure (such as vetch over-winter)/roots and salads.

It is important that rotations are designed to suit farm conditions and your marketing strategy. Below are a few examples of rotations used by farms participating in the Henry Doubleday Research Association (HDRA) conversion project.

**CASE STUDY 1: LINCOLNSHIRE**

Converting from: Intensive vegetable production to organic field vegetable production  
Previous land use: Vegetable trials and arable  
Fertility policy: Stockless rotation – no brought in manure  
Market: Selling to packer/multiple  
Conversion started: January 1997

**Rotation:**

i. Apr '97 – Feb '98: Mown grass clover ley  
ii. May '98 – Oct '98: In-conversion potatoes  
iii. Mar '99 – Sep '99: Onions  
iv. Nov '99 – Feb '00: Overwinter green manure  
v. Jun '00 – Nov '00: Carrots  
vi. Apr '01: Grass clover ley for two years.

**CASE STUDY 2: SOUTH DEVON**

Converting from: Mixed farm with dairy to mixed system with field vegetables  
Previous land use: Pasture, barley and fodder crops  
Farm under countryside stewardship  
Fertility policy: Own farmyard manure  
Market: Selling to local organic co-operative, wholesale and local sales  
Conversion started: February 1997

**Rotation:**

i. Feb '97–Jan '99: Grazed grass clover ley  
ii. Feb '99–July '99: Early potatoes  
iii. Aug '99–March '00: Cauliflower  
iv. April '00–Sept '00: Spring barley  
v. Peas undersown with grass clover mix, before a minimum three years in ley.

### **CASE STUDY 3: WEST LANCASHIRE**

Converting from: Field vegetable production to organic field vegetable production  
Previous land use: Brassicas and salads  
Fertility policy: Brought in farmyard manure  
Market: Packer/multiple  
Conversion started: September 1996

#### Rotation:

- i. Sept '96–July '98: Fallow (set aside)
- ii. Aug '98–March '99: Grass and red clover ley
- iii. April '99–Oct '99: Lettuce
- iv. Nov '99–Feb '00: Grass clover ley
- v. March 2000: FYM
- vi. April '00–Sept '00: Carrots/parsnips
- vii. March 2001: FYM
- viii. April '01–Oct 01: Celery
- ix. Back into red clover.

### **How do I build and maintain soil fertility?**

Maintaining soil fertility is fundamental to the production of healthy crops. Fertility should be maintained primarily through the use of leguminous fertility building crops, nutrient cycling on the farm and the regular application of green manures, FYM and compost.

Mineral fertilisers and brought in manures must only be regarded as supplements for use when adequate nutrition of the crop cannot be achieved using the methods mentioned above. There are a number of permitted fertilisers which can be used to correct deficiencies. These include natural rock phosphate (Gafsa) and ground limestones. Many mineral fertilisers will come under the 'with approval' category within the organic standards, which means that permission needs to be obtained from the certification body before use. To gain permission for these products, in most cases you will need to send the results of a soil test to your organic certification body showing that you have a deficiency that needs to be corrected.

The terms 'with approval' used by SA Certification is equivalent to the term 'must be approved before use' used by Organic Farmers and Growers (OF&G).

Animal-based fertilisers, such as bone meal and dried blood, have been placed within the 'with approval' category and may only be used for propagation with prior permission from your certification body and only on units where there are no cattle or sheep. Fish meals and fish emulsions are likewise restricted for use only to treat severe deficiencies and only used in propagating composts, protected cropping and perennial crops with the prior permission on the certification body.

For details of approved fertilisers see the trade and producer support department fact sheet *Fertilisers and Plant Tonics For Use in Organic Production*.

## **Can I use brought-in non-organic manures?**

You should attempt to source organic manure before bringing in manure from non-organic holdings. It may be worth getting hold of a regional organic producer list from your certification body and contacting local organic producers to see if any surplus manure is available, or if a long term relationship could be formed.

All sources of non-organic manure are restricted and require approval from the certification body who will also require a declaration to say that the manure is GMO-free. Manures from intensive systems are prohibited. This includes broiler units, battery units and intensive livestock systems which rely on permanent housing, slatted flooring and slurry systems.

Normal farmyard manures, stable manures and straw based pig manures are acceptable to be brought in from non-organic sources on a restricted basis as a supplementary nutrient supply, as long as the stock have not been fed rations containing GMOs or their derivatives during the preceding three months. You cannot rely on non-organic manures as the main source of fertility for your organic farm.

## **Do the manures need any special treatments?**

Soil Association standards specify the required stacking or composting periods for the different types of brought-in manure.

All brought-in non-organic manures, plant wastes and by-products from non-organic food processing industries must be processed before use. For non-organic pig and poultry manure this entails a minimum of 12 months stacking, or six months stacking with the muck being turned over at least twice, or proper composting. For other livestock manures and plant wastes from non-organic sources this entails a minimum of six months stacking, or three months stacking with the muck or waste being turned at least twice or proper composting

Composting is an aerobic process that causes substantial increases in temperature in the heap. The heap should be turned regularly in order to achieve sufficiently high temperatures throughout the material. A temperature of over 55°C for three days will destroy most weed seeds, pathogens, chemical residues and antibiotics. The heap then undergoes a cooling down phase as organic matter is converted to humus.

Long-term stacking has been shown to be effective in removing pathogens, but the end product does not deliver the same benefits in terms of stable nutrients and disease suppression as real compost.

In addition, the *Soil Association Organic Standards* include further recommendations on the timing of application of manure-based

fertilisers. These serve to protect against any risk of pathogen transfer from manures to ready-to-eat horticultural crops.

## **Is there any limit on how much manure I can use?**

Excessive applications should not be used due to the soft growth this may produce, leading to high nitrate levels in leafy crops and greater susceptibility to pest or disease attack. Not using excessive applications also avoids leaching and pollution problems.

The EU regulation 2092/91 specifies that the total application of nitrogen from both organic and non-organic manures should not exceed 170kg N/ha. This equates to approximately 30 tonnes of cattle manure and is an average over the holding or linked holdings. In other words, in excess of 170kg could be applied to a one hectare field provided the average across the farm did not exceed the 170kg limit. However, SA standards also prescribe an upper limit of 250kg N/ha which cannot be exceeded. Protected cropping is currently exempt from the Soil Association 250kg rule but not the European rule limiting average applications to 170kg N/ha.

Another issue to take into consideration when deciding how much manure to apply is that you will need to ensure that heavy metal levels in the soil do not exceed the limits specified in the *Soil Association Organic Standards*

Recommendations for time periods which should elapse between manure applications and harvest with regard to ready-to-eat crops can be found in the *Soil Association Organic Standards*.

## **What about other soil amendments?**

The use of all plant wastes and animal manures from non-organic sources must be justified at inspection. This includes green waste composts that have been composted for three months or stacked for six months providing that a non-GM declaration can be provided.

Sewage sludge, effluents and sludge-based composts are prohibited.

## **Weed, pest and disease control**

### **Can I use any herbicides?**

No. All herbicides are prohibited under UK-wide organic standards.

### **How do I control the weeds in horticultural crops?**

Mainly by cultural techniques such as stale seed beds and mechanical means using steerage hoes, brush weeders, finger weeders, flame weeders and mulches.

Some hand weeding is invariably needed at some stage on drilled crops such as carrots. A certain level of weed growth is not generally detrimental to the crop and can be tolerated although it is important to bear in mind the economic threshold of weeds in the crop.

Balanced rotations, under-sowing crops, use of transplants, proper composting and in-field hygiene all contribute to weed control.

## **How do I control pests such as aphids?**

By growing in a healthy soil you will produce healthy plants which are more resistant to insect attack. Plants that are artificially stimulated to grow, such as those under high nitrogen regimes, are more likely to suffer pest and disease problems. Combine this with careful choice of varieties and the maintenance of a diverse ecology to support predator populations within and adjacent to the crop. Hedges and wild areas encourage predatory insects and birds which help maintain pest populations below economically damaging thresholds. Fleece and fine mesh can also be used to prevent infestations.

In protected organic horticultural systems, biocontrol agents can be used to assist pest control measures.

See our fact sheet *Materials for Pest and Disease Control in Organic Crops* for further details.

## **Can I use any pesticides to control a pest infestation?**

A limited range of insecticides such as insecticidal soaps are available. Products such as pyrethrum are harmful to beneficial pest-predators so permission should be sought from the certification body before use. Soil Association licensees can get a derogation form from the producer technical officers in Soil Association Certification. Products that require prior permission should only be used when absolutely necessary– such as when there is a major threat to your crops. Products such as derris can only be used as a treatment of last resort.

## **How do I control fungi?**

By rotating the crops to prevent the build-up of fungi in the soil, by growing hardy plants which are resistant to fungal attack and, where possible, using plant varieties which have been bred for resistance. The use of good compost to build diverse soil flora and fauna has also been shown to be beneficial in suppressing fungal diseases.

Good general hygiene, including using clean equipment and fast disposal of diseased plant material is also important.

## **Can I use any fungicides?**

Three fungicidal materials are available that with prior approval based on a detailed plan can be used on growing crops where conditions mean

that the above practices are not working. These are based on potassium bicarbonate, copper salts, such as copper oxychloride, and sulphur. A plan to use these products this should be supported by agronomic justification, which may include the need for crop tissue analysis. There is a restriction on the amount of copper that can be used of 6kg per hectare a year.

### **Can I use plastic mulches?**

Yes, these are acceptable. You should aim to dispose of waste plastic in a responsible way, ideally by recycling. You may like to consider GM-free biodegradable plastic mulches. For information about plastic disposal contact the trade and producer support department.

## **Organic seed and plant raising**

### **Do I have to use organic seeds?**

You should use organically produced seeds, seed potatoes, onion sets and vegetative propagating materials. In the absence of suitable varieties or supplies of organic seeds, a derogation is available to use non-organic, untreated seed. However, licensees must obtain prior permission from their certification body before using non-organic seed, and this will have to include providing evidence – such as correspondence from seed suppliers – that suitable varieties were not available. If you don't get prior permission you run the risk of losing the organic status of the crop.

*Soil Association Organic Standards* also require that if you use transplants – bare roots, blocks or modules – they must have been grown to organic standards by a registered organic grower. Contact the trade and producer support department for details.

### **Where do I get organic seed from?**

A number of seed suppliers specialise in supplying organic seed. Others can supply untreated seed if the order is placed early enough and the non-treatment specified. Find out about organic seed and transplant availability on [www.organicxseeds.co.uk](http://www.organicxseeds.co.uk) or call the trade and producer support department.

### **Can I raise plants in conventional propagating compost?**

All organic plants must be raised in compost that does not contravene the organic standards and for which you can obtain a GMO-free declaration. The *Composts, Plant Raising Media and Mulches* fact sheet is available from the trade and producer support department and lists a range of suppliers. If you are looking at raising plants, you need to be aware of labelling regulations. If the plants have been planted into the soil on a registered organic holding then the plants can be labelled as 'transplants suitable for use in organic systems'.

## **Can I buy in plants from a commercial plant raiser?**

Yes, provided that the plant raiser is registered with a certification body and subject to inspection. See the trade and producer support department fact sheet *Suppliers of Transplants, Herbs and Rootstock for Use in Organic Systems*, and the website [www.organicxseeds.co.uk](http://www.organicxseeds.co.uk) for more information or call trade and producer support department .

## **Can I raise my own plants?**

Yes, raising plants in approved compost for use on the holding is encouraged.

## **Can I sell potted plants such as herbs as organic?**

The only plants that you can grow in pots or other containers are ornamentals or herbs (including salad cress). You may sell them as organic only if:

- The substrate is composed of a minimum 51% (by fresh weight of the end product) of materials from organic farming origin, and
- The balance of the substrate, including additional mineral requirements, falls within the permitted categories of the standards.
- The substrate provides more than 50% of the plant's nutrient needs until the point of sale
- You make sure the substrate is biologically active, for example by including composed material
- The entire plant and pot are sold together
- You do not use peat or slaughterhouse wastes
- You do not use soil from organic farms.

Seeds used to grow potted herbs should be organic. You must not harvest parts of herbs or ornamentals that have been grown in pots and sell them as organic. For further details see the *Soil Association Organic Standards*.

## **Glasshouses and polytunnels**

### **How can I rotate crops in a polytunnel or glasshouse?**

Satisfactory rotations in glasshouses can be difficult to achieve as the traditional crops come from a limited number of plant families. Tomatoes, peppers and aubergines are from the solanaceae family and cucumbers, melons and courgettes are all from the cucurbitae family. Plants within the same family are subject to similar pest and soil-borne disease problems.

When you cannot produce crops within a rotation – such as when protected cropping is used – organic standards allow mono cropping or annual cropping of the same genus (though **not** alliums, potatoes or brassicas) provided that the potential pest and disease problems can be

controlled by the permitted practices and materials. However, a rotation is recommended for the aforementioned reasons.

Wherever you can within the rotation, the longest possible interval should be allowed between growing the same crop again in the same ground. Diversity of crops grown within the same glasshouses is also recommended.

## What is a recommended rotation?

A single greenhouse could grow tomatoes one year, cucumbers the next, followed by peppers and finally salads. In a polytunnel it may be economically viable to grow a break crop such as a green manure, possibly combined with livestock such as chickens or ducks to extend the rotation and reduce the incidence of soil fungi and insect pests such as slugs and snails.

It is not always possible to comply with a balanced or self sustaining rotation under intensive horticultural situations, due to the need to maximise income from a small area and the high loss of nutrients in the crops sold.

Below is a sample three year rotation for intensive organic vegetable production.

	<b>April</b>	<b>July</b>	<b>October</b>	<b>January</b>
<b>Year 1</b>	Climbing beans	Cucumbers	Salad packs	Early carrots
<b>Year 2</b>	Tomatoes	Tomatoes	Crimson clover	Crimson clover
<b>Year 3</b>	Peppers	Peppers	Overwinter salad onions	Overwinter salad onions
<b>Year 4</b>	Climbing beans	Cucumbers	Salad packs	Early carrots

## Can I grow out of the soil?

Production out of the soil is prohibited for field and glasshouse vegetables as well as fruit. Standards for the production of pot grown herbs and ornamental plants grown in pots are encompassed within the *Soil Association Organic Standards*. See 'Can I sell potted plants such as herbs as organic' above.

## How can I meet the high potash requirements?

Appropriate use of composts and manures should be the primary means of supplying potash, phosphate and trace elements for the crops. Nitrogen should be supplied by compost and legumes in the rotation.

Where deficiencies still occur, the use of products that require prior approval such as natural rock potash, Silvinite/Meadowsalt or sulphate of potash may be approved by your certification body. The latter is

normally restricted to use on soils with a clay content of less than 20% that are particularly susceptible to low potassium levels

## **How do I avoid diseases such as wilts and root rots?**

By crop rotations and regular applications of composted manures to maintain a biologically active soil.

Where the soil becomes infected, grafting tomatoes and cucumbers onto resistant root stocks is an effective means of combating soil-borne diseases.

## **Can I use any hygiene materials to clean the glass, propagation equipment and irrigation lines?**

Ecover is effective as a cleaning agent. Dilute bleach and Citrox P can also be used as cleaning agents as long as you wash down cleaned areas with potable water afterwards. Citrox P must also not be allowed to come into contact with the soil. This means that for cleaning the inside of glasshouses you will be restricted mostly to water treatments such as steam or hot water. However, materials like Citrox P can be used on the outside of a greenhouse where they will not be coming into contact with organic soil.

# **Organic fruit production**

## **Can I convert an existing orchard or soft fruit enterprise?**

Perennial crops such as fruit trees and cane or bush fruit can be converted. A minimum of 36 months under organic management following the last non-approved input must take place before the fruit can be marketed as organic.

Planting a new orchard is recommended as the best approach to organic top fruit production. This enables you to choose varieties and rootstocks most suitable for organic production and to tailor orchard design towards a less intensive approach.

## **How long will it take to convert?**

Because of the length of time taken to convert to organic fruit production it is important to give some thought to the date that you wish to start conversion in relation to planting dates and harvest dates.

If you are intending to convert an established fruit enterprise it will be the fourth harvest after the start of land conversion which can be marketed as organic. For this reason it is advisable to start your conversion pre-harvest time so that after the statutory 36 months you will not have to wait long before you can harvest a crop eligible to be sold as organic.

If you intend to start a new enterprise and can plant organic stock/transplants into certified organic land then the following harvest could be sold as organic. It takes a two year monitored conversion period for land to gain organic status, so if you plant organic stock/transplants into organic land there is the potential for the harvest in the third year after the start of land conversion to be sold as organic. This would be most applicable to soft fruit such as strawberries that can be cropped in the same year as planting.

If planting into in-conversion land you would have to wait until the end of 36 months from the start of the land conversion before you could harvest a crop to be sold as organic.

### **Can I convert only a part of my orchard?**

Growing the same crop on a mixture of organic and non-organic land is known as parallel production. Organic production must take place on clearly defined units of land such that the production and storage areas are clearly separate from those of any other unit not producing in accordance with the organic standards.

For perennial crops, parallel production can only take place if a conversion plan is produced which undertakes to convert the whole area concerned within five years, or appropriate separation measures have been discussed and approved by your certification body. See the *Soil Association Organic Standards*.

### **Do I have to buy in organic plants if planting a new site?**

The use of organically-produced vegetative propagating materials such as trees, bushes and canes is required. In the absence of reliable supplies of organic materials a derogation can be obtained from the certification body to source non-organic stock. See the trade and producer support department fact sheet *Suppliers of Transplants, Herbs and Root Stock for Use in Organic Systems* or [www.organicxseeds.co.uk](http://www.organicxseeds.co.uk) for more details.

For the purposes of claiming the organic top fruit grant in England under the Organic Entry Level Scheme you must already have planted the trees before you enter conversion – planting at this point would not require organic stock to be used, but variety choice and layout of the orchard must take into account the future organic management.

The minimum area of orchard that you can claim is half a hectare and this area must be planted with at least 40 evenly spaced trees (note the 80 trees a hectare is the stated requirement for the definition of an orchard under Organic Entry Level Scheme).

# Organic top fruit

## How do I maintain fertility in my orchard?

Fertility should be maintained and built primarily through legumes in the sward and the use of composts. Composts not only help to build fertility but also improve soil structure and water retention. Leaf analysis is recommended during late blossom so that any deficiencies can be corrected to benefit the developing fruit.

## How do I control fungi such as mildew and scab?

The following cultural practices can be used to reduce the incidence of disease:

- Use of resistant varieties and orchard hygiene must be the principal means of controlling fungi
- Careful pruning to allow good air circulation and to remove any scab-affected branches
- Remove and destroy badly infected fruitlets during the June thinning
- Ensure leaves are decomposed as rapidly as possible after leaf fall as these offer over-wintering sites for scab spores. This can be assisted partially by mowing leaf debris.

The role of compost in suppressing disease by increasing the level of soil organic matter and enhancing soil microbial communities is also becoming more apparent. Biologically active soils will also substantially help the process of decay of leaf litter.

Three fungicide materials can be used on a restricted basis where cultural methods are ineffective. These are based on potassium bicarbonate, copper salts, such as copper oxychloride and sulphur. See the trade and producer support department fact sheet *Materials for Pest and Disease Control in Organic Crops* and the *Soil Association Organic Standards*.

Some varieties, such as Cox and Bramley, are difficult to grow organically due to their susceptibility to mildew and scab.

## How do I control insects such as codling moth?

The maintenance of natural predators by encouraging wild flowers and a diverse habitat will assist in the control of insect pests. Natural insect predators such as earwigs, lacewings and other generalist insect predators can be encouraged by providing artificial refuges in the trees. Beneficial birds such as tits can also be encouraged with nesting boxes and sources of water.

Pheromone traps can be used to monitor the population of male moths and sticky bands around the tree trunk will prevent the wingless adults from climbing up the trunk to the fruit. Sticky bands will also prevent

the passage of the ants which protect aphids. There are also commercially available biological pest control materials such as insect predators, bacteria and fungi that can be used.

For further information see the trade and producer support department booklet, *Guidelines for the Production of Organic Apples and Pears in the UK*.

## **Organic soft fruit**

### **How long is the conversion period?**

Organic strawberry runners can be planted after a two year monitored conversion of the land.

### **Do I need to use organic runners and canes when establishing a new site?**

Yes, the use of non-organic strawberry runners and raspberry canes is only allowed as a restricted practice.

### **Do I need to use a rotation?**

It is sensible to use a rotation when growing organic soft fruit. For example, strawberries could be cropped for two years followed by a four-year break, so the rotation will last six years.

### **How do I combat botrytis in strawberries?**

Try growing your strawberries in tunnels as long as you have adequate ventilation. However, you will need to have some outdoor crops if you want to extend the harvest period.

### **How do I control weeds in organic soft fruit production?**

Weeds can be controlled through various methods. When establishing a new site, ensure that all perennial weeds have been removed and start off with a stale seed bed. Plants can be grown through woven polythene mulches or deep straw mulches can be used to suppress weeds. Dwarf growing clover can also be used between plants and in pathways.

### **How can I encourage beneficial insects?**

Use of herbage in the alleyways is a good way to encourage beneficial insects. Mixtures of clover, ryegrass and flowering plants will provide habitats to support ground beetles which are natural predators of the vine weevil and will provide nectar for hoverflies and other beneficial insects. Herbage in alleyways also helps to maintain soil structure while allowing vehicle access.

## Storage

### **Can I use a bulk store which also stores non-organic crops?**

Yes, provided that the cold store, storage area or bulk bins used for the organic crop are dedicated to the organic crops and are labelled as such.

Shared equipment must be thoroughly cleaned before use to prevent contamination. Chemical treatments such as fumigants, insecticidal sprays and anti-sprouting dusts are not permitted in a store where organic crops are stored due to contamination risk.

### **What packaging can be used to market the products?**

While packaging needs to ensure your product is presented in optimum condition, safety and hygiene, the packaging of organic products should also meet the best possible environmental practice. Consumers expect this, too. The Soil Association has developed specific standards on packaging and you must be able to demonstrate, at your inspection, that you have met the best possible environmental practice. You should refer to the Soil Association guidance document *Reduce, Re-use, Recycle: A guide to minimising the environmental impact of packaging* to help you meet these standards. Please contact us for a copy.

A range of suitable packaging supplies are available through the Soil Association Sales and Services department, including quick-fold boxes designed for box scheme distributors and fully compostable bags. Call the Soil Association Sales and Services department on **0117 914 2446** to discuss requirements.

### **Are there rules covering the labelling of organic crops?**

All the existing EC grading regulations and labelling regulations apply to organic crops as to non-organic crops. However, additional rules apply for organic products. Organic produce marketed through wholesale or retail outlets must be transported in closed containers such as boxes, nets or sacks. The name and address of the holding must appear on each container plus the name of the product, its organic status, and the code of the certification body. For Soil Association licensees this would be organic certification UK5. The use of the individual farm's licence number and symbol is optional.

Bulk containers sent to other registered pre-packers or processors need not be sealed but must be labelled or accompanied by documents which give the same details as above. All documentation relating to organic produce, such as delivery notes and invoices, must indicate the organic status of the products, either individually or as a whole.

## Where can I get further advice and support to help me decide?

### Choose producer membership with the Soil Association:

To get advice before you even go into conversion you can become a producer member with the Soil Association.

Producer membership is designed to assist you in the essential task of gathering the information and advice that you need before you even start the conversion period. As a member you can gain access to the same advice and support available to fully organic producers:

- Receive the excellent 52-page full colour quarterly journal, *Organic Farming*, which provides invaluable technical and market information, as well as a full range of news and feature articles
- Use our on-line telephone services for **free** technical advice, support, information and contacts
- Attend a varied national programme of on-farm **training events** and farm walks. Here, farmers and growers can meet to share information, see organic farming demonstrations and socialise. Members receive priority booking status and substantial discounts to all events and seminars
- **Have your views heard.** Over 70% of the UK's organic producers are represented by us in all major agriculture, environmental and food industry forums. This is particularly important when battling for European levels of support - including aid payments - to be made available to UK producers
- Benefit from our **market development** work. We support a range of initiatives to ensure UK producers succeed in the market place.
- Receive support with waste minimisation and energy efficiency.

Once you enter conversion with Soil Association Certification Ltd all of the above benefits and services are FREE, provided as part of your licence fee.

## Useful contact numbers

### Organic Conversion Information Service (OCIS):

A Government-funded free advisory service is available in Scotland, Northern Ireland and Wales for producers interested in conversion.

- In Wales call **01970 622100**
- In Scotland call **01224 711072**
- In Northern Ireland call **02894 426752** (for livestock) and **02890 701115** (for crops).

Until recently, free advice and information concerning organic farming was available in England but the service is currently closed. An announcement concerning the introduction of a replacement advice service will be made by Natural England shortly.

## Main contacts for the government's Organic Farming/Aid schemes in the UK:

### Natural England (formerly Rural Development Service) contact details for information on Organic Entry Level Stewardship:

T: 0300 060 1113

### National Assembly for Wales (Agriculture) Divisional offices:

Llandrindod Wells      T: 01597 823777  
Caernarfon              T: 01286 674144  
Carmarthen              T: 01267 225300

### Department of Agriculture and Rural Development (DARD):

T: 028 9052 4567

### Scottish Executive for Environment and Rural Affairs Department (SEERAD) Local offices:

Ayr	01292 610 188	Inverurie	01467 626 222
Benbecula	01870 602 346	Kirkwall	01856 875 444
Central Area Office	01738 602000	Lairg	01549 402 167
Dumfries	01387 255 292	Lerwick	01595 695 054
Elgin	01343 547 514	Oban	01631 563 071
Galashiels	01896 758 333	Portree	01478 612 516
Hamilton	01698 281 166	Stornoway	01851 702 392
Inverness	01463 234 141	Thurso	01847 893 104

## Useful marketing contacts:

For up to date arable marketing contacts and market information contact the trade and producer support department and ask for the *Marketing Information for Organic Growers (Horticultural crops)* fact sheet and visit [www.soilassociation.org/pricedata](http://www.soilassociation.org/pricedata)

## Recommended reading for organic horticultural production

- Blake F, *Organic Farming and Growing*, Crowood Press (available from the Soil Association)
- Lampkin N, *Organic Farming*, Old Pond Publishing (available from the Soil Association)
- Lampkin N, Measures M & Padel S (eds), *Organic Farm Management Handbook* (available from the Soil Association)
- HDRA, *Economics of Organic Fruit Production in the UK* (see [www.hdra.org.uk](http://www.hdra.org.uk))
- HDRA, *Organic Apple Production: Pest and disease management* (see [www.hdra.org.uk](http://www.hdra.org.uk))
- HDRA, *Organic Fruit Production: A review of current practice and knowledge* (see [www.hdra.org.uk](http://www.hdra.org.uk))

- HDRA, *Organic Strawberry Production: A grower's guide* (see **[www.hdra.org.uk](http://www.hdra.org.uk)**)
- NIAB, *NIAB Vegetable Varieties for Organic Growers* (available from the Soil Association)
- Storey D, *Plastic and Vegetables: A guide to organic growing in polytunnels*, IOFGA Technical Series.

Comprehensive and practical Soil Association technical guides covering specific areas of organic production:

- *Growing Organic Vegetables for a Box Scheme*
- *Guidelines for the Production of Organic Apples and Pears in the UK*
- *Improving Biodiversity on Organic Farms*
- *Organic Carrot Production*
- *Organic Herbs: markets, production and processing*
- *Organic Leek Production*
- *Organic Lettuce Production*
- *Organic Onion Production*
- *Organic Potato Production and Storage*
- *Organic Weed and Scrub Control on Organic Grassland*
- *Rotations for Organic Horticultural Field Crops*
- *Setting Up an Organic Box Scheme*
- *Soil Management on Organic Farms.*

For a full list of the available Soil Association literature, including books, technical guides, fact sheets and briefing papers, please contact the trade and producer support department or visit

**[www.soilassociation.org/shop](http://www.soilassociation.org/shop)**

# Soil Association Producer membership

**You don't have to be an organic farmer to join the Soil Association – everyone can benefit from organic techniques!**

## **Our membership options:**

### **Producer membership – £80 a year**

For farmers and growers – or anyone interested in or connected to producing food! Benefits include the *Organic Farming* magazine, access to over 50 factsheets and briefing papers, technical guides, our e-mail bulletins, farm walks, training events and seminars – and the knowledge that you are directly supporting our development and producer-related work.

### **Producer membership *PLUS* – £168 a year**

Provides you with all the benefits of producer membership... *plus* unlimited access to our exclusive helpline where our experienced team is on-hand to help your business succeed.

### **Public membership – £24 a year**

Keeps you in touch with the organic world, helps you find where you can buy organic food, and allows you to support our campaigning work and projects that aim to transform food culture.

For more information call **0117 914 2400** or visit **[www.soilassociation.org](http://www.soilassociation.org)** and visit the farmer and grower section.

The Soil Association is based in Bristol but we work across the UK.

### **Northern Organic Centres**

PO Box 839

Lancaster

LA1 9EU

Call **0845 122 7645**

### **Soil Association Scotland**

Call **0131 666 0847** or visit **[www.soilassociationscotland.org](http://www.soilassociationscotland.org)**

To discuss developments in other areas call the Bristol office on **0117 914 2400**.