

Soil Association organic standards for woodland

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You can search and download these standards at
www.soilassociation.org/organicstandards



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1 The principles of organic production and processing

1.1 Introduction

1.2 The principles of organic production

1.3 The origins of organic farming and organic standards

1.4 Where we are today

1.5 Developing the standards

1.1 Introduction

Welcome to our standards for organic production and processing. It contains all that you have to do to produce and sell your products as organic using the Soil Association symbol.

We have written our standards in plain English to make them as simple and clear as possible. Each standard clearly indicates how you should treat it.

What you 'should' do

These give the ideal or best organic practice. They say how you should ideally be working.

What you 'must' do

These state the actual requirements, including what you must get our permission for and what you must not do.

What you 'may' do

These state what you can do. We say if you need to get our permission for these or if there are other conditions. We have divided these conditions into three categories to be clear about your responsibilities when using them:

- With justification – you must be able to justify the use of certain products/practices at your inspection with evidence, such as test results, records, forms, a plan etc. For example, you record why you needed to use the product/practice.
- With our approval – we must have approved your use of certain products/practices. This may cover more than one use or it may be in your annual plan that we have approved. For example, you produce an annual plan that details the product/practice which your certification officer has approved and you have a copy available for inspection.
- With our permission – you must get our permission before each use of certain products/practices. For example, you phone your certification officer for permission every time, they may ask for further documentation.

Generally, if we do not mention a product or practice, it means we do not allow it so you must not use it. Please ask us if you are in doubt.

Text format

- We have included additional notes to help with interpretation or provide background information.
- We have identified new standards introduced since the last edition with 'New' written alongside them.
- We have identified standards where we have changed the wording or corrected a mistake with 'Revised' written alongside them.
- We use green text for paragraphs containing principles and best organic practice. These set the context for the standards that follow. They are things that you should do, or work towards, but they are not requirements.

1.2 The principles of organic production

Organic is a 'whole system' approach to farming and food production. It recognises the close interrelationships between all parts of the production system from the soil to the consumer. We have established a comprehensive set of organic principles that guide our work and our standards.

Agricultural principles

- To produce food of high quality in sufficient quantity.
- To work within natural systems and cycles throughout all levels from the soil to plants and animals.
- To maintain the long term fertility and biological activity of soils.
- To treat livestock ethically, meeting their physiological and behavioural needs.
- To respect regional, environmental, climatic and geographic differences and (appropriate) practices that have evolved in response to them.

Environmental principles

- To foster biodiversity and protect sensitive habitats and landscape features.
- To maximise use of renewable resources and recycling.
- To minimise pollution and waste.

Food processing principles

- To minimise processing, consistent with the food in question.
- To maximise information for the consumer on processing methods and ingredients.

For more detailed food processing principles see chapter 40.

Social principles

- To provide a fair and adequate quality of life, work satisfaction and working environment.
- To develop ecologically responsible production, processing and distribution chains, emphasising local systems.

From these principles the practices that form the foundations of organic farming have been established:

- encouraging biological cycles involving micro-organisms, soil fauna, plants and animals
- sustainable crop rotations
- recycling of nutrients using composted manure and vegetable waste
- cultivation techniques that enhance and protect the soil and its life
- avoiding soluble mineral fertilizers
- avoiding agrochemical pesticides, and
- animal husbandry which meets their physiological, behavioural and health needs.

1.3 The origins of organic farming and organic standards

The origins of organic farming

Three different strands contributed to the founding of organic farming.

- Rudolf Steiner delivered a series of eight lectures to a group of farmers in Austria in 1924. These lectures defined biodynamic agriculture and the Demeter symbol was created in 1927 to identify foods grown by these methods.
- Lady Eve Balfour was inspired by the work of Sir Albert Howard (on composting and agricultural health) and Sir Robert McCarrison (on diet and human health), both working in India. She started the Haughley Experiment on her farm in Suffolk researching the links between the health of soil, plants and animals within different closed systems. Based on this work she wrote *The Living Soil* in 1943 - the book that stimulated the founding of the Soil Association in 1946.
- Also in the '40s, Hans and Maria Müller together with Hans-Peter Rusch developed a natural approach to farming and soil fertility in Switzerland particularly using rock dusts.

However, JI Rodale in the USA actually coined the term 'organic' in 1942 when he started publishing the magazine *Organic Gardening*.

Despite their differences these founding strands shared an underlying basis:

- The concept of the farm as a living organism, an integrated whole.
- The concept of a living soil as the basis of health right up the food chain.
- The whole being greater than the sum of its parts.

So although organic farming involves and develops simple traditional agricultural practices, it is very different and involves a great deal more. Organic farming is not necessarily a low input system, as it aims to maximise the farm's own inputs. As few inputs as possible from outside the farm are used.

The origins of organic standards

Apart from Demeter, there was no formal definition or recognition of organic farming until the 1960s. The Soil Association was the first, publishing its 'standards for organically grown food' as four pages of guidelines in its magazine *Mother Earth*. The standards ended with a 'declaration of intent' for those prepared to subscribe to them.

In 1973 the Soil Association took the next step and formed the Soil Association Organic Marketing Company Limited as a wholly owned subsidiary. Initially its role was to market products grown to the Soil Association standards. However, it soon dropped marketing to concentrate on certification.

Through the '70s and early '80s the inspection element was informal and cursory, but this gradually changed as the organic method of production became more prominent. Later, to reflect this change, the company changed its name to Soil Association Certification Limited (SA Certification).

IFOAM

In 1972 Lady Eve Balfour, JI Rodale and a number of others formed the International Federation of Organic Agriculture Movements (IFOAM), recognising the international nature of organic farming. Their aim was to bring together the various movements and to share information across language, cultural and geographic boundaries. It produced its first 'basic' standards (for information and education, not certification) in 1980.

Governments

By the late '80s the organic market was sufficiently strong that governments started to take an interest, wishing to protect the consumer from possible fraud. In 1987 the Minister of Agriculture announced the formation of UKROFS (UK Register of Organic Food Standards).

Its brief was to draw up a minimum UK organic standard, to register the organic certifiers including their inspectors, and to certify those wishing to by-pass the private bodies.

The EU was also looking at organic farming. Based on the IFOAM standards, it published its 'organic' regulation (no. 2092/91) in 1991. However, it was not until 1999 that livestock standards were legally included in the regulation. In 2005, the European Commission started drafting a new regulation to replace 2092/91, following the European Organic Action Plan in 2004. The new regulation came into force on 1 January 2009 and is in several parts:

- the framework 'Council' regulation no. 834/2007.
- its implementing rules, Commission regulation no. 889/2008.
- other implementing rules for aquaculture, seaweed, yeast and imports.

This official definition and control of organic farming also allowed the authorities to give financial support to organic farmers. This stimulated the significant, sometimes dramatic, growth that the organic market still enjoys.

Several countries followed the EU's lead, including the USA, Japan, Australia and many smaller nations, particularly those exporting to the big trading blocks. Thus the proliferation of national organic laws mirrors the many private organic standards that have emerged.

Partly to address this the Codex Alimentarius Commission of the Food and Agriculture Organisation (FAO), which sets global standards for farming and food, produced guidelines for organic farming. It used the EU regulation as its starting point. The new EU regulation now references the Codex guidelines as a measure of equivalence for imports into the EU.

IFOAM was also active. It set up the IFOAM accreditation programme in 1992 to provide an international service that would allow 'one inspection, one certification, one accreditation'.

1.4 Where we are today

European Union

The EU organic regulation is the legal basis for the control of organic farming and food processing in Europe. It contains:

- standards for crop production (including wild harvesting and seaweed)
- standards for livestock husbandry (including beekeeping and aquaculture)
- standards for processing and labeling of both foods and livestock feeds
- requirements for importing products from outside the EU, including ensuring equivalence to production within the EU
- requirements for inspection and certification of farmers, processors, wholesalers, distributors and importers
- requirements for controlling inspection and certification by national authorities, and
- procedures for amending the regulation, including developing standards for other livestock species (which are under national responsibility until then).

The EU regulation does not cover:

- processing of non-food crops such as for textiles and personal care products
- certification of inputs, and
- non-commercial production (that which is not sold).

United Kingdom

The Department for Environment, Food and Rural Affairs (Defra) is the UK authority. It is responsible for:

- applying and interpreting the EU regulation in the UK
- approving and regulating the private certification bodies
- holding a register of organic producers, processors and importers, and
- assisting the European Commission in approving imports from outside the EU.

Previously UKROFS was responsible for these but the Advisory Committee on Organic Standards (ACOS) replaced it. ACOS' role is purely advisory, advising the minister on all organic issues. Defra has taken back UKROFS' original powers.

The Defra Compendium of organic standards is the legal minimum standard in the UK. It only varies from the EU regulation by some additional requirements in the livestock standards.

Soil Association

Founded in 1946 our mission is to research, develop and promote sustainable relationships between the soil, plants, animals, people and the biosphere, in order to produce healthy food and other products while protecting and enhancing the environment.

There are two parts to our organisation:

- the Soil Association is a membership charity that owns these standards and reviews and updates them. As an applicant or a licensee you will automatically be a member. It is therefore your organisation and you can have your say in how to run it and what standards it sets
- Soil Association Certification Limited (SA Certification) is a wholly owned subsidiary company which inspects and certifies farmers and processors to the symbol scheme using Soil Association standards.

We are 'solutions' based and bring consumers, producers and all other parts of the organic movement together in one organisation. Our structure reflects the holistic principle at the heart of organic production.

Our main activities include:

- educational campaigns reaching out to consumers, farmers and the food industry, opinion formers and policy makers.
- policy research into targeted areas of agriculture and the links with health, environment and animal welfare.
- promoting local food and community supported agriculture.
- representing organic farmers and serving their needs through conferences, courses and demonstration farms.
- setting standards for organic production and processing, and
- certification to these standards (through SA Certification).

1.5 Developing the standards

We maintain our own standards as they are the practical expression of our guiding philosophy. We feel this is important:

- to uphold integrity, maintain trust and so safeguard your market
- to continue standards development to reflect organic principles
- to be able to react to new understanding, technical innovation or progress in the market, and also to new threats, and
- for the organic movement to own the standards - they are too precious and too important to be left only in the hands of the authorities.

We aim to review different parts of the standards in rotation so that we can focus properly on only the chosen sections.

Our standards comply with all legal requirements, in particular EU Regulations 834/2007 and 889/2008. Some areas of our standards are higher than those required by law and we also have standards for types of production not covered by the EU Regulation. These include environmental management and conservation, textiles and health and beauty care products.

Setting our standards

Our standards department is responsible for managing the standards and their development. We follow a set process:

- anyone can propose an amendment to us
- we analyse and research the changes we think are needed and, along with the proposals we receive, make recommendations to the relevant standards committee (however we aim to undertake more in-depth reviews of a small number of areas so will not necessarily deal with all proposals immediately)
- the standards committee approves (or not) the proposed changes for consultation
- if approved, we make the proposed amendments available to licensees in Certification News, to Soil Association members through Living Earth, as well as on our website and by contacting relevant stakeholders directly
- we collate your responses and submit them to the standards board (or possibly back to the standards committee if they identify issues that need further work)
- the standards board may revise the proposals and approves them for final authorisation by the Soil Association council
- the council gives its final approval
- we publish the approved changes or new standards for you to start applying after a notice period of three months.

Three bodies assist us in this process:

- council:
 - i. council members are trustees of the charity, elected by all Soil Association members
 - ii. it is the final authority on our standards and appoints the standards board
- standards board:
 - i. this consists of an independent chair, the chairs of three standards committees, three organic sector representatives and three lay members
 - ii. it directs the work of the standards department and appoints the standards committees
- standards committees:
 - i. these consist of a wide range of practical, professional and scientific experts, balanced by consumer representatives and non-governmental organisations
 - ii. each committee is responsible for technical evaluation of standards in its specific area.

We set all this down in formal standards-setting procedures and terms of reference - please

ask us if you want a copy.

All standards committee members offer their services voluntarily and as individuals, not as representatives of companies. We gratefully acknowledge the huge contribution they make to our standards work through the time and expertise they freely give.

2 The certification process

The certification process

2.1 Soil Association Certification Limited

2.2 The Soil Association symbol

2.3 Inspection

2.4 Certification

2.1 Soil Association Certification Limited

2.1.1

Since 1973 Soil Association Certification Limited (SA Certification) has certified farm enterprises, foods and other products as organic. SA Certification is a wholly owned subsidiary of the Soil Association charity. We are registered with Defra to certify organic food production and processing under the terms of EU Regulation No. 834/2007

2.1.2

Our certification scheme is accredited to EN45011 (ISO 65) by the United Kingdom Accreditation Service (UKAS). Our certifier code is 'GB-ORG-05'.

How we work

2.1.3

We inspect and certify organic farms, food manufacturers and producers of non-food items such as health and beauty products and textiles. See 'Inspection and certification process' (standard 2.4.11) for the process we follow.

If we are satisfied that the farmer, food manufacturer, producer or operator has met our standards we issue:

- an annual certificate of registration
- a trading schedule, and
- a licence to use our symbol.

2.1.4

We license every stage, from production on the farm, through processing, to distribution to the consumer.

2.2 The Soil Association symbol

2.2.1

The Soil Association symbol is the most recognised organic trademark in the UK and has gained the trust, respect and confidence of consumers and producers across the globe. The Soil Association symbol demonstrates that an organic food or non-food product meets our standards (see 2.2.2 and 2.2.3).

2.2.2

Food production includes:

- horticultural and arable crops, livestock and aquaculture
- food processing and packing, distribution, retail and catering - all the operations between farm production and consumer purchase, and
- importing organic food from outside of the EU, either for direct sale or for further manufacturing.

2.2.3

Non-food production includes:

- other products containing organic ingredients, such as health and beauty care products and textiles
- products that are used as inputs to farming and gardening systems
- sustainable forestry and manufacture of timber products (covered by the Woodmark scheme), and
- education and courses in organic agriculture, horticulture and food processing.

Using the Soil Association symbol

2.2.5

The Soil Association organic symbol is a registered certification mark (®) of Soil Association Limited.

2.2.6

We have made some changes to our symbol to improve readability and recognition for consumers. The new symbol design is available for use from January 2009 but to reduce waste (for example, packaging) the final deadline for switching to the new symbol is 1 January 2012. Until then, it is acceptable to use either symbol.

Old symbol



New symbol



2.2.7

You may only use the symbol on your products if you hold a valid certificate of registration

from us. You must only use it for organic products identified on your trading schedule.

2.2.8

You may use the symbol on company stationery, promotional literature and websites if we certify your entire product range. Otherwise you must only use the symbol if you state clearly which products, lines or ranges it applies to. All uses of the symbol must be approved by your certification officer prior to marketing (see standard 40.10.3).

2.2.9

From July 2010, you must use our symbol on the final (consumer) packaging of the products we certify except where we agree there is a good reason for not doing so.

Note – examples of exceptions we might agree are:

- where the label is so small that it would jeopardise other information required by law
- for products which are exclusively exported
- where your labelling machine cannot print a symbol (and you cannot apply the symbol in another way).

2.2.10

Where our symbol has not been used on a brand since July 2008 you may instead use the words 'Soil Association organic'.

Note - this only applies where our symbol has not been used at all across a brand. The font size of 'Soil Association organic' must be at least that of the EU phrases 'EU agriculture' and 'non-EU agriculture'.

2.2.11

Where the words 'Soil Association organic' are used instead of our symbol, you should communicate about the value of the Soil Association organic standards in your marketing and promotional materials.

What the symbol should look like

2.2.12

You must reproduce the symbol from original artwork. Please contact your certification officer for a copy of the symbol.

2.2.13

The symbol must appear:

- complete and upright
- in proportion to the product description
- at least 10mm in diameter (example 'A')
- in black or white (examples 'B' and 'C')
- clearly visible
- clear and legible over the whole of a background, for example if used over a photograph (example 'D'), and
- no less prominent than the EU logo.

You must ask us if you wish to use the symbol at a smaller size than 10mm in diameter (for example on very small packaging) or in a colour other than black and white.



2.2.14

The symbol should be:

- on the main face of the label or packaging
- in proportion to the product description, but it works best if it is at least 12mm in diameter, and
- placed on a clear background that extends 30% beyond the area of the symbol (for example 3mm around a symbol 10mm in diameter).

2.2.15

The symbol must not appear:

- against a background that affects the legibility of the symbol (example 'E')
- incomplete
- at an angle
- within an extra circle either of an outline or solid colour (example 'F')
- in more than one colour (example 'G'), or
- with a different font or typeface (example 'H').

Examples of how not to use the symbol are shown below.



2.2.16

In addition to standards 2.2.10 - 2.2.15 you must also comply with the labelling standards in sections 3.5 (for producers) and 40.10 (for processors).

2.2.17

A version of the 'Soil Association organic' symbol is available in Welsh.



The EU organic logo

2.2.18

You must display the EU organic logo on your labels of packaged organic products. You may continue to market products that were produced, packed and labelled before 1 July 2010 without the EU organic logo, new certifier code or new 'country of origin' requirements until these stocks run out.

Our certifier code

2.2.19

You may continue to place products on the market using existing packaging without the EU organic logo, new certifier code or new 'country of origin' requirements until 1 July 2012.

Thereafter your labels of packaged organic products that are placed on the market must also include the EU organic logo. Your certifier code must be placed in the same visual field as the logo. The place of farming should be placed immediately below the certifier code. The text should align with the left edge of the EU organic logo. For full guidance please refer to http://ec.europa.eu/agriculture/organic/eu-policy/logo_en and standards 3.5.8 and 3.5.9 (for producers), standards 40.10.9 to 40.10.16 (for processors).

2.2.20

The EU organic logo is published for use in green as shown above. The reference for single colour printing is Pantone 376, or if you print using four colour process, 50% cyan, 100% yellow. Where colour is not possible you may use black and white. It may also be possible to use other colours as described in standard 2.2.20. Please refer to http://ec.europa.eu/agriculture/organic/eu-policy/logo_en for full details on how to use the EU organic logo.



2.2.21

The EU organic logo must:

- appear at least 9mm high and 13.5mm wide, or
- appear 6mm high for very small packages, and
- have a proportional height to width ratio of 1: 15.

2.2.22

The EU organic logo may appear:

- anywhere on your packaging, providing it is easily visible, clearly legible and indelible
- in negative, if the background of your packaging is dark
- in the single colour of your packaging if you are only able to print one colour
- with an outer line around it to improve how it stands out on coloured backgrounds
- in conjunction with other logos and text referring to organic, providing this does not overlap, obscure or change the logo.

2.2.23

Our certifier code is 'GB-ORG-05'; it must appear in the same visual field as the EU organic logo. This certifier code will replace the old certifier code 'GB organic certification 5'. You should use the new certifier code on any new packaging from 1 July 2010. You may use labels displaying our old certifier code until 1 July 2012. Please refer to sections 3.5 (for producers) and 40.10 (for processors), for when to use 'GB-ORG-05'.

The approved product symbol

2.2.24

You may use the approved product symbol (which replaces the certified product symbol from January 2009) on non-organic products such as salt and agricultural inputs certified under our approved products scheme. You may not use the Soil Association organic symbol on these products. Please ask us if you would like further information on this scheme.



2.3 Inspection

2.3.1

Our inspectors check your operation to make sure that it meets our standards. The inspector will give you an inspection report.

We will draw up an action summary form (either at inspection or we will send it to you afterwards). This lists areas that do not comply with the standards and asks how you will correct them.

We may impose sanctions depending on the severity of the weakness. We grade these as:

- minor non-compliance
- major non-compliance
- critical non-compliance, or
- manifest infringement.

We may also ask for extra information to complete the approval process.

2.3.2

You must complete the action summary form with the actions you will take to comply with the standards, and return it to us with any other information we request before the deadline we give you.

When we have received your completed form and agreed that the information you have given is satisfactory we will approve the action summary form.

We will then issue your licence if you are an applicant or continue it if you are a licensee.

We may suspend or even terminate your licence if you do not send the completed form, or the information we request, within the deadlines. If your licence is suspended you must not trade as organic.

Additional inspections

2.3.3

We may do extra inspections throughout the year if:

- you wish to add a new enterprise to your licence
- you move to new premises
- we receive a complaint regarding your business
- you are selected as part of our spot inspection programme
- we need to inspect again to make sure you have corrected non-compliances, or
- our risk assessment of your operations suggests the need for this.

These may be announced or unannounced. We may charge you for these inspections. UKAS or Defra inspectors may accompany our inspectors.

Defra may also inspect you as part of their surveillance of our inspection procedures.

2.3.4

If you are an international group licensee you must comply with section 8.3 of IFOAM 'Norms for Organic Production and Processing'. Please refer to www.ifoam.org.

2.4 Certification

2.4.1

You must have available the current Soil Association standards relevant to your organic enterprises.

2.4.2

You must comply with all relevant standards for each enterprise or product shown on your trading schedule.

2.4.3

If you suspect or know a product you have produced, or another operator has supplied to you, does not comply with these standards, you must stop trading it and tell us immediately.

2.4.4

You may sell, or process for other companies to sell, only those products listed on your valid trading schedule.

2.4.5

If you sell direct to the public you must display your certificate of registration in a prominent place at the point of sale for consumers to see. You must also have your most up-to-date trading schedule available if consumers wish to see it.

2.4.6

If you wish to use our symbol, the wording 'GB-ORG-05' or reference to SA Certification or Soil Association on your product, it must be licensed by us. For the application process see standard 2.4.11.

2.4.7

Once we license you we will send you a new certificate of registration every 12 months. This is subject to you paying us your annual certification fees and showing by your annual inspection that you are continuing to meet our standards.

2.4.8

If you are a producer we calculate your fee each year primarily based on the area of your organically managed land.

2.4.9

If you are licensed under our processor certification scheme we will ask you each year to provide your total organic sales, which we use to help calculate your fees.

Complaints

2.4.10

We appreciate there may be occasions when you wish to make a formal complaint to us. This could be regarding service, standards, policy, another licensee or an unlicensed company. We have formal complaints and appeals procedures which are available on request. You can make a complaint in writing, by email or by telephone.

Inspection and certification process

2.4.11



3 Farming and growing

Standards you must read with this chapter:

Chapter 1. The principles of organic production and processing

Chapter 2. The certification process

Farming and growing

3.1 Organic farming and the environment

3.2 Employment

3.3 Other statutory requirements

3.4 Records you need to keep

3.5 Labelling

3.6 Genetic engineering and nanotechnology

3.7 External contamination

3.8 Horses and other equines on organic land

3.9 Packaging

3.1 Organic farming and the environment

3.1.1

All food production causes some disruption to the natural environment.

Organic farming minimises this disruption by:

- limiting the types and quantities of pesticides and fertilisers used
- building soil fertility and soil stability, and
- maintaining and increasing ecological diversity within and around cropped land.

3.1.2

Ecological diversity is an essential part of a successful organic farming system. It is important to manage wildlife habitats as an integral part of an organic farm. This includes areas such as banks, hedges, ponds, species-rich pastures, areas of poor drainage and scrub land.

3.1.3

You should manage your organic farm:

- to be socially sustainable as well as environmentally sustainable
- with respect for good traditional and pastoral grazing systems, and
- sympathetically within the limitations of local climate and topography (such as mountain, hill and upland farming).

3.2 Employment

3.2.1

You should comply with the UN Convention for Human Rights (www.un.org/rights) and the core standards of the International Labour Organisation (www.ilo.org). This means you must allow your employees:

- the freedom to associate
- the right to organise, and
- the right to bargain collectively.

3.2.2

You must not use forced or involuntary labour or child labour that interferes with their education.

3.2.3

We may withdraw your certification if working conditions on your organic holding do not meet legal requirements or the UN Convention for Human Rights.

3.2.4

If you have 10 or more workers you must have a policy that ensures you comply with legal requirements for human rights and labour relations.

Training

3.2.5

Everyone involved in organic farming and production should:

- be fully trained for the tasks they are carrying out
- be aware of the relevant standards, and
- understand the importance of maintaining organic integrity throughout the production and processing cycle.

3.3 Other statutory requirements

3.3.1

You must make sure your agricultural activities comply with all relevant cross compliance requirements. The Soil Association standards may be above or below those requirements in different areas.

3.3.2

You must make sure your organic business meets all relevant statutory requirements. This includes requirements concerning:

- premises
- equipment
- staff facilities
- general hygiene, and
- protection of food from contamination or deterioration.

3.3.3

You must make sure your organic products meet all statutory requirements. This includes requirements concerning:

- grade
- composition
- quality
- quantity, and
- product descriptions.

3.4 Records you need to keep

3.4.1

This section tells you what records you need to keep of your farm operations.

If you are also processing your own or brought-in agricultural products you must also meet record keeping requirements in section 40.6.

We have a range of record keeping forms available to help you. Please let us know if you would like any of these forms.

General requirements for records

3.4.2

You must keep clear, accurate records of all your farm and on-farm processing operations at the unit or premises. You need to keep them in enough detail to demonstrate you meet our standards.

3.4.3

You must keep records of your physical and financial operations for your whole holding. This includes organic, in-conversion and non-organic units on your holding.

3.4.4

You must record any inputs you use, and any outputs from your farm. Your records must enable us to check that output from your farm is reasonable in relation to your management and inputs.

3.4.5

If you fail to keep any of the required records we will not be able to inspect properly and may have to suspend or withdraw your licence for specific products or for your whole operation. You will then be unable to legally market these products as organic, or with any reference to organic production.

3.4.6

You must keep all your records for at least five years.

3.4.7

Your accounting records must include:

- sales and purchase invoices
- delivery notes, and
- VAT accounts.

Complaints register

3.4.8

You must keep a complaints register for your business. This must record:

- all complaints you make and receive

- any response to the complaint and the action you take, and
- complaints you make to others and the action they take.

3.4.9

You must respond to complaints and we will check responses at your inspection.

Specific records of your agricultural operation

3.4.10 Input records

You must record:

- where you get them from
- what they are
- how much you bring in
- where and when you use them, and
- how much you use.

3.4.11 Output records

You must record:

- everything that leaves your holding, and
- where it goes.

If you retail your produce to customers you must record this daily.

3.4.12 Stock level records

You must record:

- the quantities of raw materials, and
- any finished products you are storing.

3.4.13 Crop production records

You must record:

- the date of the last input of any agrochemicals, artificial fertilisers and other materials we do not allow (this must be recorded for each field or area)
- your crop rotation plan or plans
- your cropping plan for each field or area for the next two years
- the cropping history of each field or area for the last three years, including yield
- manures and other inputs you use as a fertiliser or soil conditioner on each field or area, including source, type, composting treatment and application rate and date
- pest and disease control products you use, including source, type, application rate and date and crops treated, and
- seeds and transplants you use, including the source, quantity, type and sowing or planting date.

Specific records of your livestock operation

3.4.14

You must keep your livestock movement book up-to-date and complete.

3.4.15

When you bring animals in you must record:

- species, source and numbers
- organic status, identification and age
- veterinary history
- quarantine measures taken, and
- date they will reach organic or converted status, by animal or group.

3.4.16

When you sell animals you must record:

- species
- destination
- numbers sold
- slaughtered weight where appropriate, and
- organic status, identification and age.

3.4.17

When you buy any veterinary medicines you must record:

- purchase date
- name of medicine
- quantity purchased
- supplier
- batch number, and
- expiry date.

3.4.18

When you use any veterinary medicines you must record:

- the name and type of the medicine and its active substance
- number and identity of animals you treat
- date the treatment started and ended
- total quantity used
- reason for treatment
- name of the person who treated the animals
- length of the legal withdrawal period in days (see standard 10.9.15), and
- earliest date you can sell the animal or its products as organic.

3.4.19

When you bring livestock feeds in you must record:

- purchase date
- type and source of feed, such as forage, straights or compound
- percentage of each ingredient
- quantity
- organic status, such as organic, in-conversion or non-organic, and GMO status.

Note -you should keep a copy of feed labels.

3.4.20

You must keep details of daily feed rations. This must include:

- type of feed, such as forage, straights or concentrate
- amount of feed (kg dry matter) fed to each animal or group of animals, and
- quantity of non-organic ingredients fed.

3.4.21

You must keep details of the annual and daily percentage of non-organic ingredients fed to individuals or groups of animals.

3.4.22

You must record the period when your livestock have access to grazing.

3.4.23

If your livestock suffer health problems, we will ask you for a plan to rectify this. During this time and until the problem is resolved you must also record:

- field number, name or grazing block
- animal type, and
- date grazing started and finished.

On-farm packing or processing records

3.4.24

If you are packing or processing your own or brought-in organic produce you must keep the records required in section 40.6. If you do not have chapter 40 please contact us.

Note - you can check if you need a separate on-farm packing or processing licence by referring to section 40.3 and the glossary.

3.4.25

You do not need a separate licence (but you must let us know) if:

- you sell your own produce (fruit, vegetables or eggs) direct to the consumer, or
- your own produce is processed and packed by another licensee and you keep ownership of the product. For example, meat butchered and packed by another Soil Association licensee.

3.5 Labelling

3.5.1

You must comply with these labelling standards for:

- raw materials
- retail and bulk products
- processed and unprocessed products, and on
- promotional material, catalogues and websites.

3.5.2

Your labels must:

- clearly and accurately describe the product, and
- comply with all relevant legislation.

Dispatch paperwork

3.5.3

Your delivery notes and invoices must include the word 'organic' in the product description.

3.5.4

If your company name includes the word 'organic', this is not enough to indicate that the product is organic.

3.5.5

We can only approve your products when we have also approved the label.

3.5.6

If you print artwork without our written approval and it does not comply with these standards, we may ask you to reprint it.

Distinguishing organic and non-organic products

3.5.7

If you produce organic and non-organic lines in the same range, you must ensure that the packaging is sufficiently distinguished (for example by colour, design or wording) to prevent confusion.

Identifying the certifier

3.5.8 Revised

Your labels must include the code of the certifier who licenses the company which applies the labels. If that certifier is us, you must use our code, 'GB-ORG-05'. This must appear in the same visual field as the EU organic logo if the EU organic logo is used.

If it is another certifier, then you must use their code, even if the label also has the Soil Association symbol. For example, if an Ecocert licensee in France labels a product with the

Soil Association symbol, the product must have the Ecocert code 'FR-BIO-01' and not 'GB-ORG-05'.

If the company applying the label is based outside the EU, even if we certify it, your labels must not use 'GB-ORG-05'. Only products we certify in the UK can use this code. Your label must identify us as the certifier. (see section 2.2)

3.5.9

Labels of non-food products, such as textiles and health and beauty care, must not include the code of the certifier.

3.5.10

We have inserted the following extracts from section 40.10 for your information. These standards cover what you must do:

- to have your artwork approved by us
- when labelling in-conversion products, box schemes, bulk and wholesale products, and
- when completing dispatch documentation.

Approving your artwork

40.10.3 Copy

Your labels, websites, catalogues and promotional material must comply with our standards.

Labelling in-conversion products

40.10.7 Copy

To label your product as 'in-conversion', the product must:

- contain only one agricultural ingredient, which must be of plant origin, either processed or unprocessed, and
- have been grown on land that has gone through at least a 12 month conversion period before the crop was harvested.

The label must:

- not mislead the consumer that the product is organic
- not include the Soil Association symbol, and
- include the wording 'product under conversion to organic farming'. This must not be more prominent in colour, size and style of lettering than the sales description of the product. The words 'organic farming' must not be more prominent than the words 'product under conversion to'.

Note - you may use the wording 'Soil Association approved organic conversion'.

Labelling for box schemes

40.10.42 Copy

If you have a box scheme selling direct to the end consumer, you must:

- include your company name and address on the box, or on accompanying paperwork
- include our symbol and use the certifier code 'GB-ORG-05' (see section 2.2)
- not use our symbol on the box or paperwork if your boxes contain more than half in-conversion produce, and

- wrap and label in-conversion produce separately from organic or make sure that it is identified on paperwork (see standard 40.10.7).

40.10.43 Copy

If you sell boxes to another company you must label the box as organic and use our certifier code 'GB-ORG-05'.

Labelling of bulk and wholesale products

40.10.44 Copy

If you are selling a bulk product, the ingredient information must be either on the label, or on a document with the product.

40.10.45 Copy

If you send an organic product to another company, including retailers, wholesalers and other licensees for further processing, packing or relabelling then you must label it with:

- your company name and address, and owner or seller of the product if different
- the name and organic status of the product (for products with less than 95% organic ingredients you must identify the total percentage of organic ingredients)
- the certifier code, and
- a traceability code.

40.10.46 Copy

For bulk transport you must include this information on separate documentation and include the name of the transporter. You must be able to link the documents with the container or vehicle.

Dispatch documentation

40.10.47 Copy

You must send delivery notes and/or invoices with goods out. They must include the word 'organic' in the product description. It must be clear which products are organic and which not.

Note - if your company name includes the word organic, this is not enough to indicate that the product is organic.

3.6 Genetic engineering and nanotechnology

3.6.1

You must not use genetically modified organisms (GMOs) in organic farming or food processing. They do not fit within the principles of organic agriculture and once they have been released into the environment they cannot be recalled. They also pose potential risks to the environment and human health.

3.6.2

You must produce organic products without using GMOs or their derivatives.

3.6.3

Organic products must be free of contamination from GMOs or their derivatives.

3.6.4

You must make sure you prevent contamination during production, processing, storage and transport. If contamination occurs, or there is a risk of contamination, we may decide to withdraw certification from your land, crops or products. We will decide when certification can be reinstated on a case-by-case basis.

Use of non-organic inputs

3.6.5

You must get a signed GMO declaration form from your suppliers of non-organic inputs to show they do not contain any GMOs or their derivatives. Depending on the risk of contamination, we may ask you to provide analysis to support this.

Note - we can give you blank GMO declaration forms for your suppliers to complete and also details of how we analyse risk.

3.6.6

You must not use any inputs containing GMOs or their derivatives, including:

- seeds, seedlings and plant propagating materials
- inoculants and other microbial inputs, and
- biocides or other crop protection inputs.

3.6.7

You must not use fertilisers, composts or manure or other nutrient inputs containing GMOs or their derivatives. This includes:

- manure from animals that have eaten feed containing GMOs or their derivatives within the previous three months, and
- manure from non-organic grazing animals that have eaten feed containing GMOs or their derivatives within the previous three months.

3.6.8

If you wish to use green waste, household compost and other similar nutrient sources, we will review the waste recycling process to evaluate the risk of GMO contamination. We will then

decide if you can use it.

3.6.9

You do not need to demonstrate that visiting non-organic bulls, rams and boars, or replacement stock have eaten non-GM feed within the previous three months.

3.6.10

You must not feed your animals with grains, concentrates, supplements, vitamins, minerals, feed additives and carriers containing GMOs or their derivatives.

3.6.11

You may only use mixed, blended or compound and concentrate feeds that are certified by an organic certification body, even if they only contain non-organic ingredients. This automatically confirms their non-GM status.

3.6.12

If you mill and mix brought-in feeds or use straights you must get a completed GMO declaration form from your supplier.

Note - you do not need to give us a GM declaration form for certified feeds, straight minerals and seaweed.

3.6.13

You must not use genetically engineered semen, embryos or breeding stock.

Note - as they are not yet commercially available you do not need to take any action. If they become available we will tell you through Certification News. You will then need to obtain GMO declaration forms from your suppliers.

3.6.14

You must not use veterinary and health care products containing GMOs or their derivatives. This includes the use of medicines, hormones, vaccines, bacterial products, amino acids and parasiticides.

3.6.15

If there is no alternative but to use a GM derived veterinary product, you must treat the animal. If you do not treat a sick animal we may withdraw your certification. You must administer the treatment even if this would mean an animal losing its organic status. You must let us know if you have used such products.

Genetic testing

3.6.16

If we feel there is a risk that traceability has been compromised or contamination has occurred, we may need samples of products, ingredients or other inputs to test for the presence of GMOs. You will have to pay for these tests.

We will only use analysis when the risks justify it and to support your documentation and audit trail.

Analysis must be by the PCR method at 0.1% limit of detection.

Land where GM crops have been grown

3.6.17

If you have grown a GM crop you must leave a minimum of five years from harvesting the crop before the land where it was grown can reach full organic status.

3.6.18

If you are an applicant you must inform us if you have grown any GM crops in the last three years.

3.6.19

To prevent possible contamination you must not grow a GM crop on any part of a holding, or group of holdings, you own or manage.

Genetic contamination from GM production sites

3.6.20

GM crops grown up to six miles from your holding, and in some cases even further, may cause contamination of your land or crops by:

- cross pollination of related crop varieties
- cross pollination of soil life and plants, including weeds, or
- physical contamination by pollen, seeds or other plant residues.

Note - bees are known to travel up to three miles from their hive. This means they may carry GM pollen six miles from one end of their range to the other. The wind may carry GM pollen much more than six miles, but this has been taken as a reasonable and practical cut off point to identify potential contamination.

3.6.21

You must tell us if you know of any GM crops being grown within six miles of your holding.

3.6.22

We will assess risk of contamination of your farm and crops from GM pollen. If we identify a risk we will:

- notify you and arrange a visit to assess the risk on site
- take into account the local landscape and prevailing wind, crops grown, flowering times and any other factors that may affect the risk of contamination
- consider if an analysis of GM contamination is needed, and
- tell you our decision and any action you need to take.

Nanotechnology

3.6.23

Nanotechnology involves the manipulation of materials and the creation of structures and systems at the scale of atoms and molecules. This can be either through simple physical processes or by specific engineering. Nanoparticles are commonly defined as measuring less than 100nm – one hundred millionths of a millimetre. Nanomaterials include:

- nanoparticles and nanoemulsions
- nanostructures including nanocapsules, nanotubes, fullerenes (buckyballs), quantum dots and nanowires.

The properties of nanomaterials can differ significantly from those at larger scales because quantum effects start to occur at the nanoscale. These differences may be in chemical reactivity and biological activity, solubility and mobility, colour and transparency, among others. Nanomaterials may therefore introduce new or heightened risks of toxicity, which are currently little understood. The possible effects of these nanomaterials on the environment, human and animal health are currently unknown. These are examples of known and developing uses of nanotechnology:

- food additives, such as for flavouring, enhanced absorption of nutrients or modifying texture
- health and beauty, such as in transparent mineral sunscreens and make-up products
- packaging, including quantum dots for traceability, UV light filters, nanoclays as gas barriers and carbon nanotubes to alter strength-to-weight ratio
- medicinal, such as drug delivery, DNA vaccines and advanced therapies
- industrial, such as fuel additives and window coatings
- environmental, such as soil remediation
- electronic, such as nanocomponents in electronic circuits
- pesticides, such as pesticide delivery in nanoemulsions, and
- textiles, such as stain and water resistant coatings.

Manufactured nanoparticles include:

- engineered nanoparticles that are intentionally produced to have a specific novel property, such as for the uses listed above, and
- other manufactured nanoparticles that are produced incidentally by industrial processes, particularly modern high energy processes such as those using high pressure (for example, some types of homogenisation).

There are many cases of naturally occurring nanoparticles, for example, from volcanic eruptions or in wood smoke; these fall outside the scope of this standard.

3.6.24

You must not use ingredients containing manufactured nanoparticles, where:

- the mean particle size is 200nm or smaller, and
- the minimum particle size is 125nm or smaller.

Note – we recognise that this standard will have implications for some established manufacturing processes that produce nanoparticles incidentally. Until we research these more fully, we will not apply this standard to them. The standard does apply to engineered nanoparticles.

3.7 External contamination

3.7.1

You must tell us if you know or suspect contamination of your crops or land.

3.7.2

If your organic crops are growing next to non-organic crops you must provide an effective windbreak where there is a risk of spray drift or other contamination.

3.7.3

If there is not an effective windbreak in place you must establish a buffer zone of at least 10m between organic crops and the source of contamination. You must increase this distance to a least 20m if your crops are next to sprayed orchards.

3.7.4

You do not need to destroy any crops within the buffer zone, but they must not be sold as organic.

3.8 Horses and other equines on organic land

3.8.1

The feeding, grazing, health and welfare management of equines on your holding could affect the organic status of your land. This section sets out conditions to prevent this.

3.8.2

These standards do not allow organic certification of equines.

3.8.3

You should rotate the grazing of equines, ideally with other species, to control internal parasites and reduce routine veterinary treatments.

3.8.4

You should give organic feed to equines on organic land.

3.8.5

If you use brought-in compound feeds, they should be organic or approved non-organic.

3.8.6

If you have less than five equines on your organic land you must ensure that:

- they are fed non-GM feed
- for 48 hours after treatment with avermectin, you house them or remove the dung from the pasture, and
- you treat the manure from these animals as non-organic, as in standard 4.7.19.

3.8.7

If you have five or more equines on your organic land, in addition to the above requirements, you must ensure that:

- you have a pasture management plan outlining the control of internal parasites, weed control and soil fertility, and
- you detail how you will limit the use of avermectin.

3.9 Packaging

3.9.1

When selecting packaging, you will be taking into account factors such as: presenting your product in optimum condition, safety and hygiene, security and integrity, cost, production processes, and market requirements.

Packaging of organic products should also meet the best possible environmental practice; consumers expect this too. Therefore, you should consider the environmental impacts of your packaging alongside these factors.

3.9.2

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.

3.9.3

These standards apply to packaging of products that you introduce into the supply chain.

3.9.4

We define packaging as all primary (retail), secondary (grouping, display) and tertiary (transport) materials used for:

- containing
- protecting
- preserving
- handling
- storage
- delivery
- labeling
- marketing, and
- presentation of your products.

Note – we include bulk bins but not transport pallets in this definition.

Note – for guidance, please refer to chapters 2 and 4 of the Soil Association packaging guide.

3.9.5

You must ensure that your packaging meets all relevant legislation relating to packaging, packaging waste, and materials in contact with food.

Note – for guidance, please refer to chapter 3 of the Soil Association packaging guide.

3.9.6

You must ensure that your packaging is fit for its intended use.

3.9.7

You must store packaging in clean, dry and hygienic conditions.

3.9.8

To minimise the direct and indirect environmental impacts of your packaging during its life cycle, you must:

- minimise the amount of material used
- maximise the amount of material that can be reused or recycled, and
- use materials with recycled content where possible.

You must be able to demonstrate, at your inspection, that you have done this for each packaging format you use. you may use a form from us to help you do this. Please contact us for copies and guidance.

Note – for guidance, please refer to chapter 6 of the Soil Association packaging guide.

3.9.9

You must review our packaging against standard 3.9.8 at least every three years and be able to demonstrate that you have done this, for example by keeping minutes of review meetings, or having a formal policy requiring this.

3.9.10

If you use renewable materials, they should be from sources with demonstrable controls over sustainability, for example FSC for timber products.

Note – for guidance, please refer to chapter 6 of the Soil Association packaging guide.

3.9.11

If you use bleached paper or cardboard, it must be totally chlorine free (TCF) or elemental chlorine free (ECF). Recycled paper must be process chlorine free (PCF).

3.9.12

You must not use these materials in your packaging:

- unlacquered aluminium foils if the food is acidic (with a pH less than or equal to 4.5) or salty (containing more than 2% salt)
- coatings, dyes or inks that contain phthalates if they will be in direct contact with foodstuffs
- polyvinyl chloride (PVC)

Note – you may use other chlorinated plastics, such as PVdC

- materials or substances that contain, have been derived from, or manufactured using, genetically modified organisms or genetically engineered enzymes
- synthetic coatings for cheese if they contain fungicides
- wood that has been treated with preservatives

Note – this includes bulk bins but not transport pallets.

You must be able to prove to us that you have not used these materials, for example by having written confirmation from your supplier.

3.9.13

For packaging that you reuse, you must:

- make sure it is in good repair, clean and free of contamination, and

- if previously used for non-organic products, clean it so that no residues remain.

3.9.14

If you use transparent synthetic coatings for cheese, you must explain that they are non-organic on the label.

3.9.15

For any compostable or biodegradable primary packaging (other than paper, cardboard and wood) that you use, you must:

- ensure that it conforms with the European standard for compostable packaging (EN13432), and
- clearly label it to indicate the best means of disposal (see section 40.10, copied in section 3.5, on labelling and approving your artwork).

Note – these materials are often derived from genetically modified organisms or use genetically engineered enzymes in their manufacture. Use of such materials is not permitted under standard 3.9.12.

Note – for guidance, please refer to chapter 7 of the Soil Association packaging guide.

3.9.16

You must ensure that any environmental information, claims and symbols on your packaging are clear, truthful and accurate and conform to Defra's Green Claims code (see section 40.10, copied in section 3.5, on labelling and approving your artwork).

Note – for guidance, please refer to chapter 9 of the Soil Association packaging guide.

3.9.17

You should provide consumers with information about your packaging, for example, about the materials you have selected, its purpose, and how they can minimise its environmental impact at disposal.

Note – for guidance, please refer to chapter 9 of the Soil Association packaging guide.

3.9.18

If your packaging does not comply with these standards, we will ask you to revise it.

4 Crop and land management

Standards you must read with this chapter:

Chapter 1. The principles of organic production and processing

Chapter 2. The certification process

Chapter 3. Farming and growing

Crop and land management

- 4.1 Converting land to organic production
- 4.2 Planning conversion
- 4.3 Conversion periods for land and crops
- 4.4 Managing organic and nonorganic enterprises
- 4.5 Environmental management and conservation
- 4.6 Managing soil
- 4.7 Manure, compost and plant wastes
- 4.8 Mineral fertilisers and supplementary nutrients
- 4.9 Heavy metals in soil and manure
- 4.10 Controlling weeds
- 4.11 Controlling pests and disease
- 4.12 Harvesting crops
- 4.13 Storing crops
- 4.14 Transporting crops
- 4.15 Cleaning equipment and storage areas
- 4.16 Managing water

4.1 Converting land to organic production

4.1.1

You should convert your whole farm, including all of your crop production and animal husbandry, to organic management over a period of time.

4.1.2

The rate that you convert your farm should depend on:

- how you manage your existing farming operations
- your knowledge and experience of organic production
- your farm's ecological situation, and
- your farm's financial situation.

4.1.3

When you are converting to an organic production system you must:

- only use materials and practices we allow in these standards
- keep to a conversion plan agreed with us, and
- have your production system monitored by us.

4.1.4

Any land that was primary habitat or an area of High Conservation Value (HCV) after January 2007 must not be cleared or used for organic farming. There are six criteria for defining an HCV area. Only one of these criteria needs to be met for an area of land to have high conservation value. These are:

- areas containing globally, regionally or nationally significant concentrations of biodiversity such as refugia, endemic or endangered species
- globally, regionally or nationally significant large landscape-level habitat where viable populations of most, if not all, naturally occurring species exist in natural patterns of distribution and abundance
- areas that contain rare, threatened or endangered ecosystems
- areas that provide basic ecosystem services in critical situations such as watershed protection or erosion control
- areas fundamental to meeting the basic needs of local communities as a source of food, water or income
- areas critical to local communities' traditional, cultural identity (this will be identified in cooperation with the local community).

An HCV area not only includes the characteristic of critical importance but also the surrounding area required to maintain or enhance the high conservation value. You can identify an HCV area by looking at land use records, consulting with the appropriate authority, a regional or local conservation body and local communities. If sufficient information is not available to identify primary habitat or an HCV area then we will take the precautionary approach and not certify the land.

4.1.5

For farmland that was primary habitat or an HCV area at any time between 1 January 1994 and 1 January 2007 you must put in place a conservation plan to compensate, in part, for the loss of biodiversity.

Note – we will implement these standards for palm oil and its derivatives from 2011. For other products we will introduce a timeline for compliance when this standard is reviewed in

2011.

4.2 Planning conversion

4.2.1

You must provide us with a conversion plan showing how you will meet all areas of these standards, keeping it updated as necessary.

4.2.2

Your conversion plan must show that the areas of land you convert are:

- large enough to allow you to develop and sustain your organic production system, and
- physically separate and identifiable from non-organic areas.

4.2.3

Your conversion must result in a financially separate unit with its own accounts and record keeping system. You must meet the record keeping requirements of section 3.4 of these standards.

4.2.4

You must make sure that by the time your livestock operation reaches organic status, any land on your unit used for their grazing or feed is either organic or in-conversion.

Note - you may have other separate units of your holding which you are converting over a longer time period.

4.2.5

If in the last two years you have grown crops that reduce the nutrients in the soil in any of your fields (exploitative crops such as cereals), you must start the conversion of those fields with a fertility building phase.

4.2.6

You must give us your conversion plan at the start of your conversion period. It must cover the period of a complete crop rotation and must include your:

- soil management programme (see section 4.6)
- cropping plans and proposed crop rotations (see chapter 5)
- programme for supplying nutrients to your crops (see sections 4.6–4.8)
- programme for controlling pests, diseases and weeds (see sections 4.10 and 4.11)
- plans for managing each enterprise (see relevant chapters 5–9)
- grazing practices and grassland management – how they fit into your crop rotations and how you will use them to minimise livestock parasites (see chapters 6, 10 and relevant chapters 11–23 for individual species)
- environmental conservation methods (see section 4.5)
- livestock management plan (see section 10.3), and
- recent soil analysis results with any recommendations made.

Note - please contact our producer certification team for guidance on the above.

4.3 Conversion periods for land and crops

Licensing your land and crops

4.3.1

We can only license your land as in-conversion after:

- we have received and approved your application form and conversion plan
- we have inspected the land, crops and production methods you are using, and
- we have agreed the date you started managing your land to organic standards.

We will then send you a trading schedule listing your land as in-conversion from that date

4.3.2

We can only send you a trading schedule listing your crops as in-conversion after:

- we license your land as in-conversion
- we have monitored your organic management for at least 12 months, and
- we are satisfied you have grown the crops to full organic standards during that time.

Selling your crops as 'in-conversion' or 'organic'

4.3.3

To refer to your crop as 'in-conversion', the crop must:

- be listed on your trading schedule as 'in-conversion', and
- have been grown on land that has completed its first year of conversion before the crop was harvested.

4.3.4

You must not use the Soil Association symbol on in-conversion produce.

4.3.5

When labelling produce as 'in-conversion' the label must:

- not mislead the consumer that the product is organic
- not include the Soil Association symbol, and
- include the wording 'product under conversion to organic farming'.

This wording must not be more prominent in colour, size and style of lettering than the sales description of the product. The words 'organic farming' must not be more prominent than the words 'product under conversion to'.

4.3.6

You must only sell your crops as organic and use the Soil Association symbol after:

- the crops have completed the appropriate conversion periods (see standards 4.3.7 - 4.3.16)
- we are satisfied you have grown the crops to full organic standards, and
- we have sent you a trading schedule detailing their organic status.

Conversion periods

4.3.7

Your land and crops must complete the following conversion periods from the agreed start date of conversion:

- all land - 24 months
- crops grown on your land:
 - i. arable and horticultural crops - 24 months before the sowing or planting of the organic crops
 - ii. grass - 24 months before grazing or cutting for organic hay or silage
 - iii. perennial crops already in the ground (other than grass or forage) - 36 months before harvesting organic crops
 - iv. non-organic perennial crops planted, with our permission, into in-conversion land - 12 months from planting or when the land becomes organic, whichever is longest
 - v. organic perennial crops planted into in-conversion land - can be harvested as organic when the land becomes organic.

Note - you can find the conversion periods for livestock in the following sections:

- general: 10.4
- simultaneous conversion: 10.5
- cattle 11.1
- sheep and goats: 12.1
- pigs: 13.1
- deer: 14.2
- bees: 15.1
- poultry: 20.2-20.4

4.3.8

In certain cases we may decide to extend or agree to reduce the conversion period by taking into account how you have managed your land before it begins conversion.

4.3.9

We may extend the conversion period, or decide that your land is not suitable for conversion, if your land has been contaminated by:

- environmental pollution, for example from factories or heavy traffic
- previous applications of sewage sludge, or
- residual pesticides.

4.3.10

With our approval, you may reduce the conversion period by up to four months if you can show that:

- you managed the land to organic standards before your application date, and
- you have full records to show you have not used anything we do not allow on this land for the period of this reduction.

4.3.11

Your competent authority (in the UK this is Defra) must approve any reduction of more than four months and up to 12 months. To be considered for a reduced conversion period you must:

- have managed the land under a recognised agri-environmental scheme which prohibits any pesticides or fertilisers that we do not allow, and
- have full records or other documentary evidence to show you have not used anything we do not allow on this land for the period of the requested reduction.

You must demonstrate this to us at your inspection.

4.3.12

In all cases of a reduced conversion period request, you must also be able to show that any livestock that have used the land have not been fed GM feeds during that time.

4.3.13

With our approval, you may start organic pig or poultry production on land in its second year of conversion but only if the land has not received anything we do not allow for at least 24 months.

4.3.14

You must not switch your land back and forth between organic and non-organic management.

4.3.15

If you have to treat your land with anything we do not allow, then you must inform us. The land will lose its organic status. We may let you re-convert the land but may require an extension to the conversion period.

4.3.16

If you have to treat an area of your organic or in-conversion land with anything we do not allow as part of a compulsory pest or disease control scheme, it will have to go through another conversion period. We may reduce the 24 month conversion period based on:

- the material used and how quickly it will break down in the soil or plant material
- how soon the next harvest (which cannot be sold as organic) is, and
- approval from Defra.

4.4 Managing organic and non-organic enterprises

4.4.1

Your organic production must take place on clearly defined units of land. We will regularly inspect both the organic and non-organic production areas.

4.4.2

If you run organic and non-organic production units in the same area you must:

- keep organic and non-organic production and storage areas clearly separate
- provide us with full details of the following for both organic and non-organic units:
 - i. land areas
 - ii. crops
 - iii. livestock
 - iv. production and storage premises, and
 - v. any packing or processing operations
- keep written records so our inspector can check:
 - i. the origin, nature and quantities of all materials you bring in and how you have used them
 - ii. the nature and quantities of all agricultural products you sold and who to, and
 - iii. that you have met these standards.

Growing non-organic crops

4.4.3

If you grow the same crops on your non-organic land as on your in-conversion or organic land we must be able to easily identify different varieties on each area.

4.4.4

You must not grow the same variety of crops on your non-organic land as on your in-conversion or organic land (we call this 'parallel production' and only allow it for the crops listed below).

4.4.5

With our approval, you may 'parallel produce' only the following:

- perennial crops
- seeds, vegetative propagating materials or transplants
- grassland used only for grazing
- crops grown for agricultural research
- crops on farms used for formal education

4.4.6

In addition, you may 'parallel produce' only if you:

- permanently separate the products from each unit
- tell us at least 48 hours before you harvest each crop
- tell us the exact quantities harvested and any distinguishing features, such as quality, colour and size
- confirm you have kept the products separate

- get our approval each year, and
- (for perennial crops only) agree with us, through your conversion plan, to convert the whole area concerned within five years.

Keeping non-organic animals

4.4.7

If you have non-organic animals on your holding they must be a different species and be on units which are physically, financially and operationally separate. We define these terms below:

Physically separate:

- your non-organic unit must have distinct blocks of land which are separate from your organic unit
- we do not allow a mosaic of organic and non-organic fields
- organic and non-organic units can be next to each other but there must be a barrier between them, such as a hedge or fence.

Financially separate:

- you must keep separate financial records
- you must be able to clearly identify invoices for each unit.

Operationally separate:

- you must demonstrate that you manage the organic unit as a distinct and separate operation
- you can use shared cultivation equipment
- you will need to show how you separate organic and non-organic in housing, machinery, equipment for feed, milling and mixing and parlours (for dairy farms)
- your non-organic unit may have the same holding number but may not have the same herd or flock numbers.

4.4.8

With our permission, you may graze non-organic stock on your organic or converting land for a limited time if:

- there are no suitable organic animals available
- they do not graze your land for more than 120 days each calendar year (this is the total length of time that non-organic stock are on your whole holding, not on individual fields)
- they come from extensive husbandry or a system with a maximum stocking rate equivalent to 170kg of nitrogen per hectare per year (please see standard 4.7.27 to calculate this), and
- you do not graze organic animals on those fields at the same time.

Storing products we do not allow

4.4.9

You must not store products we do not allow in these standards on your organic unit.

4.5 Environmental management and conservation

4.5.1

Your management should develop a healthy and productive farm that encourages a balanced and varied farm ecosystem which coexists with natural systems.

4.5.2

You should:

- apply high standards of conservation management throughout your holding to conserve and enhance:
 - i. landscape features
 - ii. habitats, and
 - iii. wild plant and animal species
- co-operate with statutory and voluntary conservation agencies in surveying, recording and managing the wildlife and conservation features of the farm
- carry out creative conservation projects, but without damaging existing sites of conservation value, and
- create wildlife corridors to link habitats, for example making continuous semi-natural habitats containing hedgerows, field margins and verges.

Note - to do this you should be willing to consult appropriate conservation bodies.

4.5.3

You must:

- meet the terms of all legal and statutory requirements regarding the wider environment at all times, and
- maintain public rights of way.

Statutory sites

4.5.4

Damage to statutory recognised sites can result in prosecution. We will refuse your application for certification if you have knowingly been involved in damaging such sites within the five years before your application.

Note - statutory recognised sites have legal restrictions on site management.

Statutory recognised sites include:

- internationally important wildlife site
- special protection area (EU birds directive)
- special area of conservation (EU habitats directive)
- RAMSAR site (convention on wetlands of international importance)
- nationally important wildlife site
- site of special scientific interest (Wildlife and Countryside Act 1981 and Countryside and Rights of Way Act 2000)
- nationally important archaeological site
- scheduled ancient monument (Ancient Monuments and Archaeological Areas Act 1979)
- National Nature Reserve.

Bodies that designate and monitor the sites are:

- Natural England
- Countryside Council for Wales

- Scottish National Heritage
- English Heritage
- Welsh Historic Monuments, and
- Historic Scotland.

Note - statutory recognised sites have legal restrictions on site management.

4.5.5

You must not, without the approval of the relevant statutory conservation agency, carry out any of the operations notified as likely to damage the special interest of any site with statutory legal protection or a non-statutory or local site (this includes sites formally advised as candidates for notification). You must give us a copy of the consent from the statutory conservation agency for any such operation before the works start.

4.5.6

You must carry out an appropriate scale environmental impact assessment if you are considering doing anything likely to damage a non-statutory or local site. The assessment must include comments on the proposed works by the body responsible for the site's notification (for example a Wildlife Trust, Local Authority or County Environmental Record Centre).

Note – please contact us for guidance notes on preparing a suitable environmental impact assessment.

Note – non-statutory or local sites may be regionally or locally important wildlife sites which may be called by a range of terms including:

- wildlife site
- site of nature conservation importance (SNCI)
- site of importance for nature conservation (SINC), or
- regionally important geological site (RIGS).

The bodies that designate and monitor the sites are either your local authority or the Local Wildlife Trusts (whose office addresses can be obtained from The Wildlife Trusts, The Kiln, Waterside, Mather Road, Newark NG24 1WT. Tel 01636 677711). Information is also sometimes held by County Environmental Record Centres.

Note – please contact us for guidance notes on preparing a suitable environmental impact assessment.

Note – non-statutory or local sites may be regionally or locally important wildlife sites which may be called by a range of terms.

4.5.7

You must not, without our permission, plough, cultivate, re-seed, drain or otherwise damage the wildlife or geological interest of any area of your holding that has been formally identified as a 'local site'.

4.5.8

We will refuse your application for certification if you have knowingly been involved in damaging a non-statutory or 'local' site within the five years before your application.

4.5.9

If you cause damage to a non-statutory or local site we may withdraw certification from the holding.

4.5.10

You must not:

- clear vegetation by burning
- burn straw, cereal waste or stubble.

Whole farm conservation planning

4.5.11

You should keep an up-to-date conservation plan for your whole holding so that you manage both your farm and its environment in an integrated way.

4.5.12

You should commission your plan from a competent advisor or organisation who should prepare it with you. It should detail:

- valuable points or sites, including cropped and non-cropped habitats
- opportunities you have to improve wildlife conservation and landscape values, and
- an action plan for further work, including any available grant funds.

Note – if you are a member of the Farming and Wildlife Advisory Group (FWAG) in England, Wales or Scotland, they can give you a farm management plan.

4.5.13

You must identify, on a map, all statutory recognised and non-statutory or local wildlife habitats and landscape sites, and archaeological and historic features on your holding. Your map should be the same scale as an Integrated Administration and Control System (IACS) map, for example 1:10,000. You must formally revise your map at least every five years.

Managing traditional field boundaries

4.5.14

Traditional boundaries such as hedges, ditches, banks and stone walls act as corridors for wildlife through agricultural land and the wider countryside. They are also important landscape and historic features. They perform an important function on organic farms by:

- maintaining a diverse ecology
- acting as valuable reservoirs for beneficial animals and insects, and
- providing shelter for your stock.

4.5.15

You should:

- use traditional methods and materials to maintain field boundaries
- trim your hedges in January and February, leaving some hedges untrimmed each year on a two or three year cycle, and
- clear ditches in stages.

Note - you should either keep a section of each ditch uncleared each year, or clear opposite

sides in alternate years. You should agree your rotational plan with us through your farm conservation plan.

4.5.16

To provide habitats and food sources for birds, mammals and insects you should keep an uncultivated strip of perennial grass or wild flowers, planted or naturally regenerated, around any fields larger than two hectares:

- the strip should average two metres wide, measured from the edge of the field boundary or hedge
- you may graze this area, but not plough or use fertilisers, and
- you should cut them only once in a two year period to control scrub.

4.5.17

To allow wildlife to travel between habitats, there should be no more than 200 metres between any part of your arable fields and a permanent area of non-cropped habitat (such as a hedge, ditch or beetle bank). The permanently non-cropped area should be at least two metres wide.

4.5.18

You should carry out risk assessments of all your agricultural practices and their potential impact on the environment.

4.5.19

You must manage river banks to keep erosion and soil run-off to a minimum.

4.5.20

You must get our permission before removing hedges, banks, ditches or walls.

Note - we will allow this on guidance from a conservation advisor and after taking into account any compensatory environmental work.

4.5.21

With justification, you may trim hedges annually if your local authority needs you to trim them for road safety or access reasons, or if you can show it is beneficial for wildlife.

4.5.22

You must not trim your hedges between 1 March and 31 August.

Managing semi-natural habitats

4.5.23

Areas of semi-natural habitat, such as moorland, heathland, wetland, grazing marsh, dunes and scrub have reduced significantly in the UK.

4.5.24

You should conserve and enhance semi-natural habitats within your organic farming system by:

- managing your grazing to encourage healthy vegetation and to reduce localised over-grazing
- moving feeding sites on a regular basis to prevent poaching
- siting feeding areas away from sensitive vegetation, and
- cutting or crushing rushes in late August and bracken in late June or July (unless a qualified advisor suggests other times are more suitable).

4.5.25

You may:

- burn heather and muir, if you keep to the recognised heather and muir burning codes
- with our approval, sow clover into unimproved pastures provided they are identified in a whole farm conservation plan (standards 4.5.13 - 4.5.15)
- sow clover on a 'recognised site' (standard 4.5.4) only if an appropriate conservation body advises you to do so, and
- cut turf or peat from peat bogs only for your own domestic fuel supply.

4.5.26

You must not:

- improve or add drainage that will affect recognised areas of significant conservation value, or
- allow livestock to overgraze, poach or damage valuable habitats.

Managing trees and woodland

4.5.27

Trees and woodland play an important role in maintaining the ecological balance on organic farms, providing a habitat for wildlife, including pest predators.

4.5.28

Mature trees and woodland are major contributors to the beauty and amenity value of the landscape. Individual trees and woodland play a vital part in conserving landscape and species diversity.

4.5.29

You should manage your trees and woodland to enhance your farm, local environment and the wider landscape by:

- maintaining and managing your trees in keeping with local custom and woodland practice
- integrating re-planting programmes with existing woodland and trees
- natural regeneration, coppicing and other traditional management practices
- creating new woodland on suitable sites using native species
- protecting newly planted or regenerated woodland against livestock
- using native and local shrubs, trees, seeds and plant material from local suppliers
- maintaining mature specimen trees that are not dangerous
- planting replacement trees if you remove any
- ploughing no closer to the trunk of any tree than a line drawn vertically through the outermost canopy, and
- not planting trees in areas where farmland waders breed.

4.5.30

You must not plant on statutory recognised sites (see standards 4.5.4 - 4.5.6) unless you get approval from the relevant statutory conservation agency and us.

Approval may be in the form of a letter from the conservation agency.

Agricultural production in woodland

4.5.31

If you use woodland or forest areas for organic agriculture (for example for pigs or poultry) as well as woodland products, you must manage these areas to our organic woodland standards (chapter 90).

4.5.32

Where you allow livestock access to woodland or forest areas, but you are not selling any woodland products as organic, you must provide us with a plan showing how you will prevent damage to the woodland. You do not need to meet our organic woodland standards (chapter 90).

Managing farm buildings

4.5.33

Buildings are part of the farming landscape. They are wildlife habitats, landscape features and can be of historical value.

4.5.34

You should build, develop and maintain your farm buildings in keeping with the surrounding environment by:

- maintaining and restoring old buildings to their original form, using traditional or local materials if possible
- taking advice from the Society for the Protection of Ancient Buildings, Cadw or other appropriate bodies when considering conversion or demolition considering the environmental and aesthetic impact when siting and constructing new farm buildings, and
- providing roosts or nest sites of bats and barn owls in new buildings and conversions.

4.5.35

You must get approval from the appropriate statutory conservation agency before you do any work that may affect the nesting and roosting sites of owls, bats and other endangered species.

4.5.36

You must not use wood preservatives that are harmful to bats on any buildings.

Managing plastic waste

4.5.37

You should recycle plastic waste or dispose of it appropriately.

Note - please contact us for more information on recycling plastic waste.

4.5.38

You must not burn plastic waste.

4.5.39

If you use structures that require plastic covering, such as polytunnels, the plastic covering must be based on polyethylene, polypropylene or other polycarbonates.

Managing water biodiversity

4.5.40

We have introduced these water management standards over the following timescale:

Step 1: As guidelines (not obligatory) from 1 January 2008 to 31 December 2009

Step 2: Implementing only what you must not do from 1 January 2010 to 31 December 2011

Step 3: Implementing them as full standards from 1 January 2012.

4.5.41

You should use information from conservation agencies and biodiversity action plans to:

- where relevant, be aware of key freshwater species on your farm or in your locality, and
- if present, incorporate the requirements of such species into your whole farm conservation planning.

4.5.42 Revised 2012

You must have an undisturbed buffer strip of at least two metres along any watercourses or reservoirs to protect wildlife and prevent soil erosion. We may give exceptions to this where you can justify that it is essential and/or the risk of damage is low. Our decision will depend on the dimensions of the watercourse, the topography, the cropping and other management practices.

Note – the buffer strip can be natural or productive vegetation, provided it performs the protective function.

4.5.43 Revised 2012

You must, where applicable:

- identify wetlands, watercourses, open water and springs on your farm on the conservation map, and
- protect these from contamination by, where relevant:
 - i. stock
 - ii. excess manuring
 - iii. excess silting from soil erosion, and
 - iv. fuels and agrochemicals.

Note – you may have waterings (areas next to watercourses to enable livestock to drink) provided you manage these to prevent or at least limit any damage caused.

4.5.44

You may create and manage man-made water courses and water bodies, provided you:

- take account of existing biodiversity, and
- ensure you conserve and develop the surrounding natural habitats.

4.5.45

You must not physically alter any:

- natural watercourse or water body
- bank-side habitat, wetland, mire or reedbed.

We may give you permission to do this if we have agreed this as part of your conservation plan or for another appropriate reason. You may also need permission from the appropriate authorities.

Note – an example of ‘another appropriate reason’ could be installing a local-scale energy generating system or improving a reservoir.

Controlling water pollution

4.5.46

Organic farming should aim to reduce, even eliminate, water pollutants entering the water catchment.

4.5.47 Revised 2012

You must:

- assess pollution risks arising out of your farm’s:
 - i. manure and fertiliser use
 - ii. livestock management
 - iii. cultivation practices
 - iv. dirty water practices, and
 - v. domestic and processing waste, and
- identify and be ready to implement remedial measures for each of them.

4.5.48

You should:

- have measures to separate water polluted by wastes, manures, silage and compost leachate
- use bio-filters in dirty water, manure and water management systems
- drain your milk tanker loading sites into the dirty water system
- regularly monitor your soil, ground and surface water for contamination where you use irrigation or potential pollutants that we allow.

Note – the contaminants you should monitor will depend on the likely sources of pollution. They are most likely to be pathogens, agrochemicals and certain nutrients.

4.5.49

You must not do anything to pollute or degrade water resources.

Note – we accept that some activities aimed at long term positive benefit may cause minimal, short term damage as a side-effect.

4.5.50

You must not apply to land any processing waste from abattoirs or meat processing units unless it is properly treated and is of organic farming origin.

Note – you may also have to comply with other regulations (eg the Animal By-Products Regulations 2005).

4.6 Managing soil

4.6.1

You should maintain a protective cover of vegetation, such as green manure or growing crops, to protect surface-living organisms and soil structure from exposure to dry conditions, heavy rain or strong winds.

4.6.2

Your cultivation for crop production should:

- be well-timed to get a suitable tilth whilst avoiding damage to the soil structure
- cause minimal disruption of the soil profile by shallow ploughing or no-till systems, and
- enable deep loosening of the sub-soil to break plough or compaction pans.

4.6.3

You should monitor the levels of organic matter, available plant nutrients and nutrient reserves in your soil by analysing them and nutrient budgeting. You should try to do this at the same time each year.

4.6.4

You must manage your soil to prevent erosion.

4.6.5

You must manage your soil with the aim of developing and protecting an optimum soil structure, biological activity and fertility. To do this you must:

- maintain humus levels, biological activity and plant nutrients for instance by regularly applying organic manure or compost and plant remains
- make sure your soil has enough microbial activity to start the decay of organic materials
- make sure your soil has enough microbial activity to breakdown non-soluble minerals to make them available to plant roots, and
- make sure your soil conditions encourage the continual activity of soil fauna and other soil stabilising agents. They will improve and stabilise soil structure by producing granular casts, deep burrows and mixing the organic matter.

4.6.6

With our approval, you may use appropriate preparations of micro-organisms to improve soil condition or nutrient availability. You must obtain our approval before you use them, and tell us why you need to use them.

4.7 Manure, compost and plant wastes

4.7.1

To optimise nutrient cycles and prevent nutrient loss, you must return manure and plant wastes to the soil. You should return enough to increase or at least maintain soil fertility and microbial activity. Together with a sound rotation, this should form the basis of soil fertility management.

4.7.2

Your management of soil fertility should minimise nutrient loss and you should:

- compost manure and aerate slurry
- only use non-synthetic mineral and biological fertilisers as an addition to, and not a replacement for, nutrient recycling
- prevent heavy metals and other pollutants accumulating in the soil, and maintain suitable pH levels in the soil.

4.7.3

You may use:

- organically produced straw, farmyard manure (FYM) and poultry manure, preferably after composting it properly
- organically produced slurry, urine and dirty water, preferably after aerating
- plant waste materials and by-products from organic food processing, preferably after treating, and sawdust, shavings and bark from untreated timber.

4.7.4

You may only use peat in propagating media, but you should use alternatives to peat where possible. Ideally these should be from sustainable UK produced materials.

4.7.5

With justification you may use:

- compost activators made from microbial and plant extracts, and
- biodynamic preparations.

4.7.6

You must only use non-organic manure and plant wastes to complement your soil fertility management. You must use them only occasionally and when other ways of maintaining soil health and fertility are insufficient.

4.7.7

With justification, you may use non-organic animal manure or plant waste. However, you must:

- give us details of the manure, including the animal species and the husbandry system it comes from
- send us a completed GMO Declaration for brought in FYM (available from us on request)
- tell us why you need to use it, and
- make sure the manure or plant waste has been stacked or composted for the required

time (see standard 4.7.19).

4.7.8

The following non-organic manure, plant wastes and by-products are acceptable to use subject to standard 4.7.7:

- straw, FYM and stable manure
- poultry manure and deep litter from the following egg producing systems (defined by EEC Regulation No. 1274/91):
 - i. free range – maximum 1,000 birds/ha
 - ii. semi-intensive – maximum 4,000 birds/ha
 - iii. deep litter – maximum seven birds/m²
 - iv. deep litter pullet rearing systems – maximum housing density 17 kg birds/m²
- poultry manure and deep litter from the following meat producing systems (defined by EEC Regulation No. 1538/91):
 - i. free range
 - ii. traditional free range
 - iii. extensive indoor barn reared (maximum housing density of 12 mature birds or 25 kg/m²)
- manure from straw-based pig production systems
- by-products from food processing industries
- plant wastes and by-products, including green wastes
- mushroom composts, worm composts and animal slurry made from non-organic animal manure conforming to these standards
- dirty water from non-organic systems, but only to in-conversion land
- feather meal from the non-organic systems identified in this standard.

4.7.9

With our approval you may use compost from household waste if it meets all legal requirements and if it is free from GMOs. We will review the waste recycling process to evaluate the risk of GMO contamination.

We do not consider greenwaste compost from source separated systems containing no food or animal by-products as household waste.

Note – www.defra.gov.uk/environment/waste/topics/compost/index.htm has more information on the legal requirements.

4.7.10

If you wish to use a compost which we have not licensed or approved you will need to provide us with a heavy metal analysis of the material.

Compost from household waste must contain concentrations no more than (in mg/kg of dry matter):

- Cadmium: 0.7
- Copper: 70
- Nickel: 25
- Lead: 45
- Zinc: 200
- Mercury: 0.4
- Chromium (VI): 0.

Compost from source separated greenwaste facilities must contain concentrations of no more

than (in mg/kg of dry matter):

- Cadmium: 1.5
- Copper: 200
- Nickel: 50
- Lead: 200
- Zinc: 400
- Mercury: 1
- Chromium (VI): 100.

4.7.11

If you produce compost for sale to organic farmers your composting facilities and methods must meet the requirements of the Publicly Available Specification for Composted Materials (PAS100). You must meet the PAS100 in addition to the requirements of these standards.

Note - PAS100 specifies the minimum requirements for the process of composting, the selection of input materials and the quality of the composted materials, but does not include requirements for organic production. If you need a copy of the PAS100 please contact The Association for Organics Recycling, WRAP or our producer support department.

4.7.12

You must not use:

- sewage sludge, effluents and sludge-based composts
- animal residues and manure from livestock systems that do not meet these standards, including:
 - i. battery poultry systems
 - ii. broiler units with stocking rates over 25 kg/m²
 - iii. indoor tethered sow breeding units
 - iv. other systems where the animals are not freely allowed to turn through 360°, where they are permanently in the dark, or are permanently kept without bedding.

Note - please refer to standard 4.8.12 for processed animal products and fish products you can use in protected cropping, propagation composts and perennial crops.

Managing compost, manure and slurry

4.7.13

The quality and effectiveness of manure and slurry improves after treatments such as composting, anaerobic digestion, aeration of slurry and storage.

4.7.14

Well managed compost heaps and anaerobic digesters will reduce the number of pathogens, destroy most weed seeds, chemical residues and antibiotics that may be present in the animal or plant wastes. Composting will also stabilise nutrients, reduce nutrient losses in the soil and help to meet the needs of a crop through the growing season.

4.7.15

You should:

- store and compost manure and plant waste indoors, under plastic sheeting or on hard standing where you can collect run-off (to prevent losing nutrients during periods of heavy rainfall)

- monitor the temperature throughout the composting process
- build slurry tanks and slurry lagoons to British Standard 5502: 1989, and install aeration facilities
- analyse compost to make sure human pathogens have been removed – we suggest you:
 - i. use a HACCP based approach
 - ii. record three continuous days' temperatures at over 55°C for each batch
 - iii. sample the first three batches for Salmonella and E. coli, and
 - iv. make further analyses if you change the manure waste source
- apply only properly composted materials, and
- only apply composted manure, plant waste and aerated slurry in spring and summer, and onto grassland, cultivated land and land you plan to use for fertility building crops.

4.7.16

You should keep compost heaps made from organic manure or plant waste for at least three months and turn them frequently to achieve an even temperature of at least 55°C.

4.7.17

Treatments you should use for organic manure and plant waste:

- treatment for slurry: aerated
- treatment for manure and plant waste, including straw:
 - i. stacked for three months
 - ii. stacked for two months and turned at least twice, or
 - iii. properly composted.

Note - please refer to standard 4.7.19 for how you must treat non-organic manure and plant waste.

4.7.18

You should produce a farm waste management plan which details how you will manage manure and crop residues to:

- recycle nutrients, and
- minimise nutrient losses.

Note - you can get a guide that will help you produce a farm waste management plan from Defra (Farm Waste Management Plan - The Defra step by step guide for farmers).

4.7.19

You must treat your non-organic manure and plant waste as follows:

- treatment for slurry: aerated
- treatment for pig and poultry manure from systems described in standard 4.7.8:
 - i. stacked for 12 months
 - ii. stacked for six months and turned at least twice, or
 - iii. properly composted
- treatment for other livestock manure and plant waste, including straw and by-products from non-organic food processing:

- i. stacked for six months
- ii. stacked for three months and turned at least twice, or
- iii. properly composted.

4.7.20

With our approval, you may use material resulting from the anaerobic fermentation for biogas production of non-organic plant waste, including straw and by-products from non-organic food processing.

Note – you must only use this material to complement your soil fertility management. Please see standard 4.7.6.

4.7.21

Manure treatments, storage systems and applications must conform to the Water Resources Act 1991 and the Defra Code of Good Agricultural Practice for the Protection of Water. You can get free copies of these from Defra Publications or the Environment Agency.

4.7.22

Your storage facilities must be:

- able to cope with the amount of manure and slurry that is produced on your holding
- large enough to stop pollution of watercourses and ground water through direct flow, or by run-off and penetration of the soil, and
- large enough to store manure throughout the times of the year you are not able or allowed to apply it to the land. This might be when the weather or land is not suitable or if your production unit is in a nitrate vulnerable zone.

Note - we consider that to meet the above standards you should have at least four months storage capacity for livestock manure and slurry. This should be in place before your land becomes organic.

How much compost, manure and slurry you can apply

4.7.23

You should spread organic manure on your own organic land.

4.7.24

The total amount of manure that you can apply to your organic or in-conversion land, averaged over the whole area, must not be more than 170kg of nitrogen (N) per hectare per year.

You must calculate it over the whole area of your holding or linked units you use for agriculture. It is not the maximum you can apply to any one field.

4.7.25

You must not apply more than 250kg of nitrogen per hectare per year to any area of land. This excludes any manure your livestock deposit directly. This does not apply to protected cropping.

4.7.26

You should take note of the following when calculating the amount of nitrogen.

- Directive 91/676/EEC defines manure as animal urine, faeces and any bedding (but the nitrogen in bedding is negligible).
- The 170kg of nitrogen per hectare per year includes the amount of nitrogen applied to your land by your livestock plus any brought-in dried or pelleted manure.
- The 170kg of nitrogen per hectare per year excludes other fertilisers, leguminous crops and other supplementary nutrients.

4.7.27

To help you with your calculations you can use the table below. This shows you how much nitrogen is produced by livestock in a year.

Annual amount (kg) of nitrogen (N) produced per animal			
<i>Dairy cattle</i>		<i>Beef cattle</i>	
Dairy cows (600kg)	100.0	Suckler cows (500kg)	58.6
Dairy cows (500kg)	85.0	Stock bulls	65.0
Dairy cows (450kg)	77.3	Cattle >24 months (500kg)	58.6
Bull	70.00	Cattle 12-24 months	44.7
Heifers >24 months	58.6	Calves 6-12 months	24.3
Heifers 12-24 months	44.7	Calves 0-6 months	14.2
Calves 6-12 months	24.3		
Calves 0-6 months	14.2		
<i>Sheep</i>		<i>Poultry</i>	
Ewes (65kg)	8.9	Laying hens	0.65
Rams	9.4	Table birds (3.5crops/year)	0.29
Ewe lambs >6 months	1.9	Turkeys - male (13.5kg)	1.42
Store lambs >6 months	2.3	Turkeys - female (6.5kg)	0.65
Lambs <6 months	1.2		
<i>Pigs</i>		<i>Horses</i>	
Sows (plus litter up to 7kg)	18.9	Horse >36 months	50.0
Baconer (35-105kg)	10.6	Horse 24-36 months	44.0
Pig (35-105kg)	10.6	Horse 12-24 months	36.0
Cutter (35-85kg)	9.4	Horse foal <12 months	25.0
Grower (18-35kg)	6.1	Donkey or small pony	30.0
Weaner (7-18kg)	2.8		

Note - please refer to standards 13.3.5 for more detailed calculations on pig stocking densities.

4.7.28

You may calculate the nitrogen content of manure and slurry from the average figures below.

Amount (kg) of nitrogen (per tonne, fresh weight)			
<i>Solid manure</i>		<i>Slurry/liquid (per 1000l)</i>	
Cattle and sheep FYM	6.0	Dairy	3.0
Pig FYM	7.0	Beef	2.3
Layer FYM	16.0	Pig	4.0
Broiler/turkey FYM	30.0	Dirty water	0.3
Duck FYM	6.5		

Note - please also refer to standard 6.1.8 for details of manure usage on grassland of high environmental value.

4.7.29

If necessary, you must reduce the total stocking density to prevent exceeding 170kg of nitrogen per hectare per year.

4.7.30

We may apply further limits to your application rate of manure in order to reduce the risk of contamination of watercourses, particularly in high-risk areas.

4.7.31

You may establish links with other organic holdings to spread surplus organic manure. You must not spread it onto non-organic land. You must explain in your conversion plan how you will keep to this standard.

4.7.32

You must have an on-going arrangement with any linked units (more than just a one-off transaction). The ideal would be an arrangement where you exchange manure for straw or feed.

4.7.33

When you spread manure or slurry you must:

- avoid run-off and the pollution of ground water, and
- pay attention to the capacity of the ground to absorb the manure and slurry at that time.

4.7.34

You must only apply manure to grassland when nutrient uptake is actively taking place.

4.7.35

If you have to spread slurry onto grassland over winter you must only apply it when conditions are suitable.

4.7.36

You may only spread manure on frozen or saturated ground with our permission. You must provide us with full justification.

4.7.37

You may apply composted manure at any time in protected cropping.

4.7.38

You must not:

- apply manure or slurry when conditions are unfavourable and pollution is likely to occur
- spread slurry or manure on soil that has been frozen hard for 12 hours or more

- spread manure within ten metres of ditches or watercourses or within 50m of boreholes
- store or compost manure, without run-off collection facilities, within 50m of rivers or waterways or 100m from boreholes, or
- spread manure directly onto horticultural crops during the growing season unless it has been properly composted or stacked as required in standard 4.7.17 and 4.7.19 (excluding potatoes).

4.7.39

You should leave the following time periods between application of manure and harvesting of horticultural crops.

Harvest interval for horticultural crops (excluding potatoes)

<i>Material</i>	<i>Non-organic origin</i>	<i>Organic origin</i>
Slurry	1 year	1 year
Fresh Manure	Prohibited	6 months
Stacked manure	3 months	3 months
Manure stacked and turned at least twice	3 months	3 months
Composted manure	3 months	2 months

Note - please refer to standards 4.7.17 and 4.7.19 for the required treatment times for manure and plant waste.

4.8 Mineral fertilisers and supplementary nutrients

4.8.1

You should only use mineral fertilisers and supplementary nutrients to supplement and not replace methods of nutrient recycling described in sections 4.6, 4.7 and 5.1.

4.8.2

You must plan your production system to minimise the need for brought-in nutrients.

4.8.3

With justification, you may use the phosphate (P) sources listed below:

- natural rock phosphate, such as Tunisian rock phosphate
- calcined aluminium phosphate rock, such as Redzlaag, but only where the soil pH is greater than 7.5.

The cadmium content of rock phosphate is a potential problem. The cadmium content of the above materials must be no more than 90mg per kilogram of phosphate. You should use it as little as possible to avoid contaminating your organic land.

4.8.4

With justification, you may use the potassium (K) (potash) sources listed below:

- wood ash, only when added to composts and manure
- plant extracts, such as Kali Vinsasse
- natural rock potash, if it has a relatively low immediate solubility in water and low chlorine content, such as Adularian rock potash, and
- sylvinite and kainite (natural potash sources)

4.8.5

With justification, you may use the seaweed sources listed below:

- dried seaweed meal
- liquid seaweed, free from ingredients we don't allow
- washed up seaweed collected from the seashore by you for use on your land, and
- calcified seaweed, collected from the seashore by you for use on your land.

4.8.6

You must not use calcified seaweed extracted by dredging.

4.8.7

With justification, you may use liquid feeds made from plants produced on your organic unit.

4.8.8

With justification, you may use the minor minerals listed below:

- calcareous magnesium rock, such as Dolomitic limestone, for magnesium and lime
- gypsum (calcium sulphate)
- ground chalk and limestone
- Epsom salts, for acute magnesium deficiency
- magnesium rock, including Kieserite

- clays, such as perlite and vermiculite.

4.8.9

With justification, you may use stone meal, such as ground basalt.

4.8.10 Revised

With our approval you may use sulphate of potash to treat acute deficiencies. As it is highly soluble, we will allow you to use it only on soils susceptible to low potassium levels. You must:

- provide a fertility management plan detailing why you need to use it and demonstrating that you are optimising your use of less soluble potassium sources;
- provide a soil analysis to demonstrate that your soil type is appropriate for treatment, and;
- only use sulphate of potash produced through physical extraction (which can contain magnesium salt).

4.8.11

With our approval, you may use the supplementary nutrients listed below to treat severe deficiencies:

- sulphur
- the trace elements boron, copper, iron, manganese, molybdenum, cobalt, selenium, zinc, sodium (in the form of granular rock salt)
- basic slag
- meat, blood, bone, hoof and horn meals, but only in propagating compost and not on units where there are cattle or sheep
- wool shoddy, only when not in direct contact with the crop
- fish meals and fish emulsions, provided they are free from substances we don't allow and only in protected cropping, propagating composts or for perennial crops
- calcium chloride, only for bitter pit in apples
- industrial lime from sugar production.

We can give you approval either on a case-by-case basis, or through a plan, provided we have details of why you need to use it and under what circumstances. You must have a full soil analysis carried out, including clay fractions, heavy metal content and trace element levels. This must be available when we request it and at your inspection.

4.8.12

With our approval, you may use commercial fertilisers and liquid feeds suitable for organic use to treat severe deficiencies. You will need to tell us the ingredients and the nutrient analysis before we can approve them.

Note – you will not need to provide us with details of the ingredients if we have already verified or certified it. We can give you approval either on a case-by-case basis or through a plan, provided we have details of why you need to use it and under what circumstances.

4.8.13

You may use calcium carbonate (CaCO₃).

4.8.14

You must not use any other fertilisers, including:

- fresh blood
- guano
- chilean nitrate
- urea
- slaked lime and hydrated lime (calcium hydroxide $\text{CaO} + \text{H}_2\text{O}$)
- quicklime and burnt lime (calcium oxide CaO).

4.8.15

You must not use plant growth regulators.

4.9 Heavy metals in soil and manure

4.9.1

Heavy metals and other metallic elements are naturally present in the soil and some are essential, in trace amounts, to plants and animals. You need to maintain a correct balance. Applying manure, fertilisers and mineral supplements should not increase the concentration in the soil beyond acceptable levels.

4.9.2

The level of heavy metals in manure and soil must not exceed those in the table below.

Maximum levels of heavy metals in topsoil and manure on a total dry matter basis

	<i>In soil (mg/kg)</i>	<i>In soil (kg/ha)</i>	<i>In manure (mg/kg)</i>	<i>In manure (kg/tonne)</i>
Zinc	150	336	1000	1
Chromium	150	336	1000	1
Copper	50	110	400	0.4
Lead	100	220	250	0.25
Nickel	50	116	100	0.1
Cadmium	2	4.4	10	0.01
Mercury	1	2	2	0.002
Arsenic	50	-	-	-

Note - we will expect you to test for these only if it is likely that these levels have been exceeded.

4.10 Controlling weeds

4.10.1

The best way to control weeds is by carefully designing and managing your whole farm system. To control weeds it is important to use good rotation design, manure management, well-timed soil cultivation and good farm hygiene.

4.10.2

You should use these methods for controlling weeds:

- balanced rotations which include weed-suppressing and weed-susceptible crops
- sowing green manures
- composting manure and plant waste, and aerating slurry
- pre-sowing cultivation and stale seed bed techniques
- selecting crop varieties for vigour and weed suppression
- using re-cleaned seed
- high seed rates and under-sowing, and
- hygiene in the field and with machinery.

4.10.3 Revised

You may use the following methods if suitable:

- pre-germinating, propagating and transplanting
- raised beds and no-dig systems
- mulches, including plastic mulches but made only from polyethylene, polypropylene or other polycarbonates
- mixed stocking and tight grazing
- pre-emergence and post-emergence mechanical operations, such as hoeing, harrowing, topping, hand weeding, and
- pre-emergence and post-emergence thermal weeding.

4.10.4

You must not use any agrochemical or hormone herbicide on any part of your organic or in-conversion holding, including:

- on your crops
- round the edges of fields
- within or below hedgerows
- on headlands and pathways

4.10.5 Revised

You must not use pasteurisation or sterilisation of the soil for weed control.

Note – you may use other methods of thermal weed control (see standard 4.10.3).

4.11 Controlling pests and disease

4.11.1

The best way to control pests and disease is by carefully designing and managing your whole farm system to achieve health, diversity and vitality in your soils and crops. You will then encourage natural growth and a balanced farm ecosystem.

4.11.2

You should use these methods for controlling pests and disease:

- creating fertile soils of high biological activity to provide crops with a balanced supply of nutrients
- encouraging natural predators within and around crops by:
 - i. companion planting, under-sowing and mixed cropping, and
 - ii. leaving hedges, windbreaks, wildlife corridors and field margins uncultivated
- choosing resistant crops and varieties that are suited to your farm conditions
- grafting onto resistant rootstock
- carefully planning planting dates, and
- using good husbandry and hygiene practices to limit the spread of any pests or disease.

4.11.3

You must ensure that any products you use for pest or disease control are approved for that specific use by the Pesticide Safety Directorate or other relevant body.

Note - you can get a factsheet from us listing the products available and how you can use them under the present pesticide regulations.

4.11.4 Revised

You may use the following products to control insect pests:

- physical barriers, including fleeces and insect netting but made only from polyethylene, polypropylene or other polycarbonates
- pheromones in traps and dispensers, for monitoring pest levels or as attractants and sexual behaviour disrupters
- quassia preparations from *Quassia amara*
- preparations of *Bacillus thuringiensis*
- sticky fly traps, free from insecticides we don't allow
- biological pest control, but only using licensed, naturally occurring predators
- granulose virus preparations
- gelatine
- hydrolysed proteins and diammonium phosphate, but only as attractants in traps which prevent substances from coming into contact with the crop or being released into the environment
- quartz sand as a repellent.

4.11.5

With our approval, you may use pyrethrum preparations (made from pyrethrins extracted from *Chrysanthemum cinerariaefolium*, which may contain a synergist). You must tell us how you will minimise damage to pollinators in your annual plan.

4.11.6

You may use the following products to control fungi:

- beeswax, but only after pruning
- lecithin, and
- licensed, naturally occurring biological control.

4.11.7

You may use rodenticides but only in tamper-proof bait stations and in places where there is no risk of contaminating products.

Note - rodenticides must be labelled properly and you must store them under lock and key away from food.

4.11.8

You may use the following products for general pest control:

- plant oils such as mint, pine or caraway, but only as insecticides, acaricides, fungicides or sprout inhibitors
- steam to sterilise buildings and equipment
- mechanical traps, barriers and sound
- oils free from materials we don't allow.

4.11.9

You may use wetting and sticking agents used in sprays. These must be approved products based on natural plant extracts/oils free from materials we don't allow.

4.11.10

You must not use petroleum oils, paraffin oils or other mineral oils as pesticides.

4.11.11

With our approval of a detailed plan, you may use copper (Cu) products only if there is a major threat to your crops. You may only use up to 6kg Cu/ha/year and only the products listed below:

- copper sulphate
- copper hydroxide
- cuprous oxide
- copper oxychloride
- copper ammonium carbonate, at a maximum concentration of 25g/l.
- copper octanoate

Your plan must include details of why you need to use copper and under what circumstances. If we approve your plan you must submit an annual return with full details of the quantities you have used and the areas where you have used it.

4.11.12

With our approval, you may use the following products only if there is a major threat to your crops. We can give you approval either on a case-by-case basis or through a plan, provided we have details of why you need to use it and under what circumstances:

- Azadirachtin extracted from *Azadirachta indica* (neem tree)
- lime sulphur (calcium polysulphide)

- steam sterilisation or pasteurisation of soils, but only in protected structures
- fatty acid potassium soap (soft soap), and
- sulphur.

Note - we will give permission to use steam only as a one-off practice to combat a particular problem.

Note – we are monitoring the use of soft soap and sulphur.

4.11.13

With our permission before every use, you may use Spinosad only if there is a major threat to your crops, but you must:

- tell us why you need to use it, including details of pest numbers, and
- include in your annual plan details of how you will minimise damage to pollinators and how you will minimise the risk of development of resistance.

We will give you permission only as a treatment of last resort.

4.11.14

With our approval of a detailed plan, you may use potassium bicarbonate only as a substitute for copper or sulphur. You must be able to show why you need to use it and that it is an alternative to copper or sulphur.

4.11.15

You must not use pesticides or fungicides that we do not allow.

4.11.16

You must not use nicotine (*Nicotiana tabacum*) or extracts made from nicotine.

4.12 Harvesting crops

4.12.1

You must follow a written procedure to inspect the cleanliness of the machinery you use for drilling, spraying or combining. The level of detail in your procedure must depend on the level of risk.

4.12.2

You must have control and operating procedures that ensure organic produce is clearly identified from harvesting to despatch.

4.13 Storing crops

4.13.1

Your organic storage areas and containers must be:

- dedicated to organic or in-conversion crops
- clearly labelled to prevent mistakes between organic, in-conversion and non-organic crops
- separated from areas used for other purposes by an effective physical partition
- made from materials suitable for food use
- maintained in a clean and hygienic state
- covered to prevent contamination by bird droppings, and
- protected from access and contamination by vermin.

4.13.2

You must leave storage areas empty for a suitable length of time before use, to act as a disease and insect break.

4.13.3

You must not use:

- ionising radiation or synthetic chemicals as an aid to preservation
- materials we don't allow (including sprout inhibitors, fungicidal sprays, dips or powders and chemical fumigants or pesticides) in stores or on premises where you store organic or in-conversion crops, or
- stores containing wood treated with organo-chlorine wood preservatives such as gamma HCH or lindane.

4.14 Transporting crops

4.14.1

When you are transporting organic or in-conversion crops to other units, including wholesalers and retailers, you must make sure they are in suitable packaging or containers. They must be closed to prevent substitution and labelled or accompanied by a document that shows:

- your company name and address, and owner if different
- the name and organic status of the product
- the certification code, and
- a traceability code.

4.14.2

With justification, you may send produce to another licensed organic operator in open packaging or containers but you must send it with a document detailing the information in standard 4.14.1.

4.15 Cleaning equipment and storage areas

4.15.1

You may use the following cleaning methods:

- physical methods (for example sweeping)
- vacuum cleaning
- steam cleaning
- high pressure water cleaning, and
- hypochlorite, followed by rinsing with drinking water.

4.15.2

You must make sure all equipment is clean and free from non-organic crop residues, and any other materials that may contaminate your organic produce. This includes:

- harvesting equipment
- transport vehicles and containers
- drying equipment and conveyors, and
- storage areas.

4.15.3

Containers for storage or transport must be:

- of food grade quality
- in a good state of repair, and
- clean and free from visible residues or materials that may affect the organic integrity of products.

4.15.4

You must have a cleaning programme for any vehicles you use to transport organic products. You must make sure they are cleaned regularly and there is no build up of non-organic materials.

4.15.5

If you use vehicles or containers that have been used to transport non-organic goods or materials, you must make sure they are thoroughly clean before transporting organic products.

4.15.6

You may dry crops using direct-fired propane, diesel and paraffin driers. You must have a regular maintenance programme for the drier to ensure full fuel combustion and prevent contamination by combustion products.

4.15.7

You must tell us immediately of any contamination of organic products.

4.15.8

You must not store on your organic unit products that we do not allow in these standards.

4.16 Managing water

4.16.1

We have introduced these water management standards over the following timescale:

Step 1: As guidelines (not obligatory) from 1 January 2008 to 31 December 2009

Step 2: Implementing only what you must not do from 1 January 2010 to 31 December 2011

Step 3: Implementing them as full standards from 1 January 2012.

4.16.2

Organic farming operates as part of a natural system. Good environmental management helps foster a healthy and diverse ecosystem and enhances farm production. Whatever the type of farming system, water is an integral part.

Using water generally

4.16.3

In all operations where you use water, including irrigation, washing, processing and for livestock, you should:

- use water efficiently
- minimise any potential pollution to natural or man-made watercourses, and
- clean and re-use water where possible.

4.16.4

You should:

- assess your water use to ensure it is efficient
- routinely monitor your use of water to ensure you minimise wastage
- routinely monitor your fixtures and equipment that use or supply water to ensure they are working efficiently, and
- make sure you comply with relevant legislation on water and abstraction, pollution and waste.

Managing soil water and ground water

4.16.5

Through regular addition of organic matter in the form of compost and manure, organic management increases soil water retention capacity.

4.16.6

Your organic management should aim to:

- conserve groundwater
- prevent soil degradation
- maintain optimum soil moisture levels, and
- maintain freedom from contaminants.

4.16.7

To improve soil moisture levels, retention and capacity and reduce moisture loss, you should:

- enhance soil organic matter, structural stability and biological activity

- apply appropriate inputs of compost, manure and other organic matter
- use mulches
- scarify the surface
- use cultivation techniques such as contour ploughing and non inversion tillage (direct planting)
- avoid cultivating during soil or weather conditions that will result in excessive moisture loss, and
- assess the impact of crop rotations.

Note - compost is the most stable form of organic matter so is the best way to improve water retention in soils.

Managing surface water

4.16.8

Your organic management should aim to reduce excess field run-off and corresponding transport of suspended solids which contributes to:

- flooding
- soil degradation and erosion
- pollution, and
- damage to biodiversity.

Note - excess run-off from agriculture contributes to major flood discharges in rivers and streams. Associated soil erosion reduces downstream biodiversity and disrupts environmental function for example by adding excess amounts of nutrient-rich silts. Organic management strives to reduce such impacts by adopting appropriate management techniques. These also benefit the farm system through improved soils, crop quality and biodiversity.

4.16.9

You should:

- seek to retain permanent vegetation on land prone to run-off and erosion
- store roof/yard waters that otherwise may contribute to:
 - i. peak discharge flows in watercourses
 - ii. erosion on prone soils
 - iii. increasing quantities of dirty water (diluted slurry) on concreted areas
- apply the principles of sustainable urban drainage systems (SUDS), where appropriate.

Note - SUDS is becoming a well established tool in water management. It aims to control the sources of water, reduce run-off and increase retention and percolation.

4.16.10 Revised 2012

You must:

- identify areas prone to run off and soil erosion, and
- adopt appropriate strategies to minimise these.

Note - strategies might include selecting suitable stock type and levels, under-sowing, inter-cropping systems, non-inversion and contour cultivation, herbage strips and over-winter green covers.

4.16.11

With our permission, you may construct new field drainage.

Note - we would generally not give permission where the development is inappropriate (for example in wetland habitats), or where there is a risk of flooding or erosion downstream, unless there are associated mitigating practices. We may require you to provide validation of these factors from an appropriate environmental body.

4.16.12

You must not expose bare soil in situations where there is a high risk of run off and soil erosion.

Note - 'high risk' situations may be due to climate or topography, length of exposure or crops involved. In such situations you should employ management practices to reduce the risk (for example contour tillage, leaving strips uncultivated along the contour, using appropriate cover crops, etc).

Storage and abstraction

4.16.13

Responsible organic management implies operating sustainably within the natural hydrology of your water catchment area and drainage basin.

This means you should design your systems to:

- use only as much water as the catchment can sustain, and
- have the least impact on water quality and flow downstream of you.

4.16.14 Revised 2012

If you abstract water or irrigate, you must draw up and implement a water management plan to minimise your impact on the local water resources. When you draw up your plan it must:

- detail your uses of water
- identify issues in all the sub-headings below that are relevant to your operation and its location
- address in particular any high impact issues relevant to your operation, such as:
 - i. irrigation and other significant demands for water
 - ii. soil erosion, and
 - iii. possible pollution from agro-chemical use and storing and from spreading animal manure
- take account of (particularly if you irrigate, but may still be relevant regarding, for example soil erosion):
 - i. crop suitability and soil type
 - ii. water availability and topography, and
 - iii. peak demands and, where relevant, effects downstream, and
- detail the water conservation techniques and management practices you will use to reduce or avoid impact.

Note - your plan should be proportional to how much water you use and its impact. The lower the impact, the simpler your plan can be. It need not cover aspects that are not relevant to your operation.

To draw up the plan, you must:

- use information from appropriate authorities and agencies where available (including,

for example, those responsible for water use, the environment, and flood management strategies), and

- identify any local drainage basin management issues.

4.16.15

To draw up the plan, you should:

- consult appropriate advisory bodies, and
- be aware of relevant literature on water use.

4.16.16

Your plan should also address:

- using as little water as possible
- any water treatments you might use, and
- storing and recycling water.

4.16.17 Revised 2012

When you consider altering enterprises, such as new cropping or stocking, you must consider:

- suitability of the soil, land use and topography, and
- the impacts of such changes upon the drainage basin.

4.16.18

Abstraction will inevitably result in reduction of water flow or levels in rivers or aquifers. If you store and/or abstract water, you should:

- aim to minimise the impact on natural water resources and on biodiversity
- consider these impacts on the area of abstraction which may be a great distance away, sometimes from another river basin, and
- store surface and roof water during periods of heavy rainfall, particularly in areas where there are seasonal deficits.

4.16.19

Where water is scarce, you should use it only for high value outputs/end uses.

4.16.20

You may use abstracted water, provided that you or an appropriate authority:

- monitors water source levels, considering also precipitation, drainage rates and timeliness of supply (you may use locally appropriate methods of monitoring)
- ensures your abstraction and storage has an insignificant impact upon the catchment (it must not irreversibly damage or deplete water resources), and
- are able to demonstrate this through measuring the effect of abstraction on available reserves.

Note - the Environment Agency in England and Wales and the Scottish Environment Protection Agency in Scotland perform these functions.

4.16.21 Revised 2012

If you abstract water, you must:

- use it efficiently

- maintain the quality of returned water, and
- also have systems for rainwater capture, storage and use.

Re-use

4.16.22 Revised 2012

You must re-use water, including reclaimed water:

- where you have high water use and there is low availability
- if it is practical to do so
- if water quality parameters permit, and
- provided it does not impact upon natural water cycles and/or the river ecosystem.

4.16.23

You should use dirty water separation systems to:

- minimise the amount of dirty water you have to dispose of
- maximise the amount of reusable clean water
- dispose of the dirty water without causing pollution of natural water cycles, and
- re-use the clean water.

Irrigation

4.16.24

To reduce the need for irrigation and its impact on natural water cycles and reserves, you should:

- select appropriate crops, varieties and growing systems
- employ efficient irrigation techniques, and
- use scheduling information to plan your irrigation efficiently.

4.16.25

If you irrigate, you should:

- use methods, such as trickle and boom systems, that distribute water evenly and efficiently to the crop
- water crops in the evening or early morning to minimise evaporation losses, and
- base your scheduling on direct soil moisture measurements (being the most accurate system).

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If you irrigate you must:

- monitor soil water content on a regular basis to assist with irrigation scheduling
- base your scheduling on the soil moisture deficit
- measure soil moisture deficit either by direct soil moisture measurement or by estimation
- keep records of the water you use and your scheduling and have these available to show relevant authorities
- take regular meter readings if you use mains water, to quickly identify anomalies such as leaks
- monitor water quality annually if you source from open water, and
- monitor water quality before introducing a new irrigation system.

Note - the quality parameters you should monitor will depend on the source of the water. They are most likely to be pathogens, agrochemicals and certain nutrients.

Note - if you are part of a rotational, public irrigation scheme, over which you have no control, then we may exempt you from some of these requirements.

4.16.27

You may use spray irrigation provided that:

- the water application is uniform, and
- you minimise evaporation and soil erosion.

4.16.28

You must not irrigate:

- when soil is at field capacity, or
- in a way that causes salination to the detriment of future cropping.

9 Wild harvesting

Standards you must read with this chapter:

Chapter 1. The principles of organic production and processing

Chapter 2. The certification process

Chapter 3. Farming and growing

Chapter 4. Crop and land management

Wild harvesting

9.1 Additional standards for wild harvesting

9.2 Wild harvesting management plan

9.3 Harvesting

9.1 Additional standards for wild harvesting

9.1.1

These standards cover the harvesting of plants, plant products and fungi from the wild (but not animals). Some people also call this 'wild crafting'. These standards cover a wide range of products and geographical areas.

9.1.2

Most plants used in natural medicine are collected from the wild and therefore the control of this activity is vital. The aim of our standards is to make sure that when you harvest wild products:

- the yields you take are sustainable
- you protect the biodiversity of the area, and
- you prevent contamination.

9.1.3

Organic certification of wild harvested materials:

- is a way of preventing indiscriminate harvesting
- is of fundamental importance in preserving cultural traditions
- helps maintain biodiversity
- provides an income to some of the world's poorest people, and
- makes sure products from these plants are of high quality.

9.1.4

You must meet these standards if you want to trade and label plants and other products you harvest from the wild as organic.

9.1.5

You must not use these standards for the harvesting of animals from the wild.

9.1.6

You must make sure all material you harvest meets local, national and international legislation and action plans. This includes the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) (www.cites.org).

9.1.7

You must not harvest any species defined as 'critically endangered' in the IUCN red list (The World Conservation Union) (www.iucn.org).

9.1.8

You must not use areas for harvesting that have been treated with products we do not allow in these standards for at least three years.

9.1.9

The areas you use for harvesting must:

- be at least 10 metres from non-organic farming operations or areas sprayed with products we do not allow in these standards
- be at least 50 metres from motorways and dual carriageways, 25 metres from other major roads and 10 metres from other roads, and
- be a suitable distance from any other source of pollution or contamination.

9.1.10

It must be possible for us to inspect the areas you use for harvesting.

9.1.11

You must send us maps with your application that identify your harvesting areas.

9.2 Wild harvesting management plan

9.2.1

You must have a wild harvesting management plan which we approve and which you must review and up-date each year. You must be able to show us through your records that you have kept to this plan.

9.2.2

Your wild harvesting management plan must include all your procedures for harvesting that we require in these standards, and must:

- identify the harvesting areas
- include a register of all the groups or organisations involved in harvesting, and detail their management structures and the people responsible for them, and
- include a harvest plan (see standard 9.2.3) for each harvesting operation, which you must agree with us before harvest.

9.2.3

Your harvest plan must detail:

- the person responsible for the operation
- the names of the harvesters
- other users of harvesting operations in the same area, and how you have made sure operations are co-ordinated
- your controls on harvesting, such as times, areas, species identification by the operators, harvesting rules, quantities, species, qualities and making good, and
- environmental management procedures and records.

9.2.4

If you wish to change your harvesting plan, you must ask our permission.

9.2.5

You must have an ecological survey for each species harvested. The survey must:

- show that harvest areas can sustain the level of collection you propose
- include a definition of the sustainable annual yield
- detail the impact on other species in the harvest areas, and
- detail the general ecological impact of the operation.

9.2.6

You must identify the IUCN status of species you harvest and justify reasons for harvesting endangered or vulnerable species.

9.2.7

If there are any standards that you cannot keep to, you must tell us. We will consider each situation on a case by case basis.

Harvesters

9.2.8

You must identify a reliable person to be responsible for your wild harvesting operations.

9.2.9

You must clearly identify the manager of your harvesting operation who must:

- be familiar with the harvest area
- have written annual authorisation from local and national regulatory bodies or other authorities where available
- have a signed contract with the harvesters, agents and middle men, this must include an agreement stating how and what to harvest
- co-operate and co-ordinate with any other harvesting operation activity in the area, and
- make sure harvesters identify plants correctly to prevent mistaken collection of rare or other non-target species.

9.2.10

You must have a training programme for all harvesters that includes:

- plant and species identification
- life cycle of plants
- hygiene, and
- food safety, where suitable.

9.2.11

You must identify, act on and record any food-borne diseases your harvesters are carrying to make sure they don't take part during their illness.

9.2.12

To encourage a sense of environmental responsibility to their work, you must provide harvesters with acceptable pay and conditions.

Note - you should provide written terms and conditions of employment or engagement and show that these meet national legislation as a minimum.

Sustainable yield

9.2.13

Your environmental management must:

- maintain the species you harvest, and
- have minimum effect on the natural plant community, including other species in the area.

9.2.14

You must monitor and record the sustainability of your harvesting operations on an on-going basis.

9.2.15

You must not:

- exceed the sustainable yield of the area, or
- damage the surrounding areas through careless activities or other activities linked

with the operation.

9.2.16

If you think you might exceed the sustainable yield we have agreed, you must tell us.

Integrity, traceability and records

9.2.17

You must make sure all equipment you use is clean and free from the remains of previously harvested plants.

9.2.18

You must store samples of the materials you harvest and you must keep a record of the sampling. These will depend on the type of operation but you must show due diligence.

9.2.19

You must have record keeping systems that can trace material from harvest to point of sale.

9.3 Harvesting

9.3.1

Your harvesting activities should be away from paths or trails to keep the ambience of the area.

9.3.2

You must harvest at the best time of the year to make the most of plant resources and minimise environmental impact.

9.3.3

You must take only the parts of the plant you need whenever possible. This will keep any loss of fertility to a minimum.

9.3.4

You must harvest in a suitable way for each species. The method should allow the plant to regenerate.

9.3.5

You must leave species that reproduce by seed or spore to mature and reach reproductive age before you harvest from them.

9.3.6

When harvesting plants that reproduce by corms or bulbs, you must leave enough to sustain the species in the harvesting area.

9.3.7

If you are harvesting the aerial parts of plants that reproduce by root or rhizome, then you must leave the root or rhizome alone.

9.3.8

If you are harvesting the root or rhizome you must leave enough in the ground for it to continue to grow, or you must replant rootlets and rhizome material. You must not replant a harvested area with more plants than there were before.

9.3.9

If you are harvesting bark you must manage the trees in a suitable way for the species. This will include coppicing rather than felling where appropriate.

9.3.10

You may harvest bark from recently fallen trees.

9.3.11

With our approval, you may remove bark from living trees where this does not affect the health of the tree.

9.3.12

If you remove bark from living trees you should remove it by hand, not machine and from the limbs, not the trunk.

9.3.13

You must:

- always make sure there are enough mature plants left after harvesting to maintain habitats that other wildlife depend on
- avoid damage to neighbouring species, especially rare or threatened species
- take particular care with species that have symbiotic relationships or otherwise depend on each other
- avoid harvesting operations that lead to erosion, and
- take and keep samples of each batch harvested.

15 Beekeeping

Standards you must read with this chapter:

Chapter 1. The principles of organic production and processing

Chapter 2. The certification process

Chapter 3. Farming and growing

Chapter 40. Processes in the chain between farm and consumer

Chapter 41: Manufacturing

Beekeeping

15.1 Bees on your farm

15.2 Keeping bees healthy

15.3 Feeding bees

15.4 Siting and managing your apiaries

15.1 Bees on your farm

Bees on your farm

15.1.1

Beekeeping plays an important role in the countryside through pollination. Bees contribute to:

- biodiversity of wild plant species, and
- agricultural, horticultural and forestry production

15.1.2

The organic status of your bee products depends on:

- your hive management and the treatments you apply
- the quality of the foraging area, and
- how you harvest, process and store the honey.

15.1.3

You can sell bees and bee products as organic when:

- you have kept them to full organic standards for at least 12 months, and
- we have added organic bees and bee products to your trading schedule.

Origin of your bees and conversion

15.1.4

You must choose a breed of bee that is:

- able to adapt to local conditions
- vigorous, and
- resistant to disease

Note - we would expect this to be a European breed or local ecotype of *Apis mellifera* or a native species or breed from the area where you are producing the honey

15.1.5

You must establish your organic apiaries and increase your stocks by dividing your own colonies or bringing in colonies or swarms from other organic units.

15.1.6

You may convert your existing hives, but you must keep your bees to these standards for at least 12 months before you can sell any of their products as organic. During this time you must replace their comb with organic wax comb or foundation.

Bringing in non-organic replacements

15.1.7

You may bring in up to 10% non-organic replacements as queen bees and swarms only if you place them in hives with comb or foundation from organic production. These bees will not need to go through a conversion period.

15.1.8

With our permission, you may bring in more than 10% non-organic bees when:

- organic swarms are not available, and
- a high percentage of your bees have died due to health problems or catastrophic circumstances.

You must then keep the bees to full organic standards for 12 months before you can sell any of their products as organic.

Keeping organic and non-organic bees

15.1.9

If you keep organic and non-organic apiaries in the same area, you must keep them all to these standards.

15.1.10

With our approval, you may have non-organic apiaries in nearby non-organic areas, but you must manage them to all other aspects of these beekeeping standards.

15.1.11

You must not sell products from non-organic apiaries as organic.

15.2 Keeping bees healthy

15.2.1

To keep your bees healthy you should select appropriate hardy breeds.

15.2.2

You should encourage resistance to disease and prevent infections by:

- renewing the queens regularly
- carefully inspecting your hives to detect health problems
- controlling the male brood in your hives
- disinfecting materials and equipment regularly
- destroying contaminated material
- regularly renewing beeswax, and
- leaving enough reserves of honey and pollen in your hives.

15.2.3

If, despite taking all preventative measures, your colonies become infected you must:

- treat them immediately, and
- if necessary place the colonies in isolation apiaries.

15.2.4

If you use any veterinary treatments you must:

- make sure their use is allowed by law
- use complementary therapies provided they are effective for the condition you are treating, and
- only use other veterinary treatments, under the responsibility of your vet, if complementary therapies haven't worked, or are unlikely to prevent your bee colonies being destroyed.

15.2.5

If you treat any colonies with veterinary treatments other than complementary therapies or those we allow against Varroa mite, you must:

- put them into isolation during the treatment period
- replace all the wax with organically produced wax, and
- put the treated colony into a 12 month conversion period, starting from the date of treatment.

15.2.6

For the treatment of Varroa destructor, you may destroy the male brood to contain a Varroa infestation. You may use:

- formic acid, lactic acid, acetic acid, oxalic acid
- menthol, thymol, eucalyptol or camphor, and
- veterinary treatments which are compulsory under national or community legislation.

Welfare of bees

15.2.7

You may kill and replace the queen bee.

15.2.8

You must not:

- clip the wings of the queen bee
- use artificial insemination.

15.3 Feeding bees

15.3.1

You must leave your colonies with enough honey and pollen reserves to survive the winter.

15.3.2

You may only artificially feed your bees:

- between the last honey harvest and 15 days before the start of the next nectar or honeydew flow period, or
- when they are in danger of dying due to extreme weather conditions.

15.3.3

You must record the type of feed, dates, quantities and the hives that you artificially feed.

15.3.4

You should use organic honey, preferably from your own unit.

15.3.5

If suitable organic honey is not available, such as when it has crystallised you may, with our approval, use:

- organic sugar syrup, or
- organic sugar molasses.

15.3.6

You must not feed your bees artificially with any other products.

15.4 Siting and managing your apiaries

15.4.1

EU member states may have identified regions or areas where organic beekeeping is not practical. You must not site or manage your apiaries in those areas.

15.4.2 Revised

When you are siting your apiaries you must:

- place the hives on areas of land certified as organic
- ensure your bees have enough natural nectar, honeydew and pollen sources, and access to water
- make sure nectar and pollen sources, within four miles of your apiary, consist essentially of:
 - i. organic crops, and/or
 - ii. uncultivated areas with natural vegetation, and
 - iii. crops that have only been managed with low environmental impact methods (such as those grown under methods equivalent to those described in Article 36 of EC regulation 1698/2005 and Article 22 of Council regulation 1257/1999) and which cannot significantly affect the organic description of beekeeping, and
- keep them far enough from potential sources of contamination, such as urban centres, motorways, industrial areas, waste dumps and waste incinerators.

15.4.3

With our approval, you may site your apiaries on land that:

- only has naturally occurring vegetation, and
- has not been treated with any substances we do not allow.

15.4.4

You must provide us with:

- evidence that your colonies only have access to land that meets these conditions, and
- a map of a suitable scale that shows the location of your hives and the foraging area of your bees.

15.4.5

With our approval, you may reduce the four mile distance if you can demonstrate that the organic integrity of the honey will not be lost. You must provide us with evidence of this, such as:

- a pesticide residue analysis of the honey, and
- details of how the land in the region around the apiary is managed.

15.4.6

You must:

- identify each of your hives individually
- inform us when you move your apiaries, within a timescale we have approved and agreed with you, and
- record all details of your hive management operations, such as removing supers and extracting honey.

15.4.7

If you have put your hives in areas where flowering is not taking place or if they are dormant, you must keep them on organic land. However you do not need to meet the other conditions of siting apiaries for this time.

Hives and materials you can use

15.4.8

Your hives must be made mainly of natural materials which give no risk of contaminating either the environment, the bee products or the bees themselves.

15.4.9

You may only use:

- natural products in the hives, such as propolis, wax and plant oils
- physical cleaning treatments such as steam or direct flame
- appropriate products, listed in standard 4.11.4, 4.11.5, 4.11.6 and 4.11.8, to protect frames, hives and combs against pests, and
- appropriate substances listed in standard 10.12.14, for cleaning and disinfecting your beekeeping materials, buildings, utensils or products.

15.4.10

You must use organic wax:

- for all your new foundations
- to replace combs during a hive's conversion period, and
- to set up a new hive or installation.

15.4.11

With our approval, you may use non-organic wax from cappings if organic wax is not available.

Extraction

15.4.12

You must make sure you adequately extract, process and store your bee products.

15.4.13

You must not:

- use chemical synthetic repellents during honey extraction operations
- destroy bees in the combs to harvest bee products, or
- extract honey from combs that contain brood.

90 Woodland

Standards you must read with this chapter:

Chapter 1. The principles of organic production and processing

Chapter 2. The certification process

Chapter 3. Farming and growing

Chapter 4. Crop and land management

For timber forest products you must also read:

- United Kingdom Woodland Assurance Standard (UKWAS) in the UK, or
- your country's equivalent Forest Stewardship Council (FSC) endorsed national standard, or
- where your country has no FSC endorsed national standard, you must read the Woodmark Generic Standard

And:

- Woodmark procedures for forest certification

For non-timber forest products you must also read:

Chapter 9. Wild harvesting

Chapter 15. Beekeeping (if relevant)

Woodland

90.1 Introduction

90.2 Scope

90.3 Organic woodland certification

90.4 Woodland management

90.5 Protection from stock and game rearing

90.6 Controlling weeds, pests and disease

90.7 Woodland fertility

90.8 Managing fire

90.9 Parkland, hedgerows, veteran trees and avenues

90.10 Traditional coppice

90.11 Non-timber forest products

90.12 Agricultural production in woodland

90.1 Introduction

90.1.1

Woodland and trees form essential habitats in the ecological fabric of farms and the wider landscape and are an important resource for wildlife, people and communities. The aim of these organic woodland standards is to combine organic and sustainable woodland management principles to:

- facilitate the integration of organic production methods and woodland management
- provide opportunities for owners and managers to maximise the potential of their woodland, and
- ensure that forest, woodland, tree and soil management is carried out sustainably to maintain and increase the benefits they provide for present and future generations.

90.1.2

Sir Albert Howard, a founder of the organic farming movement, recognised woodlands and forests as embodying the principles inherent in organic farming. These organic woodland standards aim to reflect those principles.

“What are the main principles underlying Nature’s agriculture? These can most easily be seen in operation in our woods and forests. The processes of growth and the processes of decay balance one another . . . there is never any attempt at monoculture; mixed crops and mixed farming are the rule. The forest manures itself. It makes its own humus and supplies itself with minerals. The tree is the most efficient agent available for making use of the minerals . . . it can grow anywhere, vanquish most of the other forms of vegetation, and it will leave the soil in a highly fertile condition.”

90.1.3

The three principles of organic production that are most important for organic forestry are:

- to work with natural systems and cycles
- to foster biodiversity and protect sensitive habitats, and
- to maximise use of renewable resources and minimise pollution and waste.

90.1.4

Translating these into the woodland or forest environment, with its much longer production cycle, will generally mean:

- mixed age, mixed species stands
- management for continuous cover
- no use of outside inputs (fertilisers or pesticides).

90.2 Scope

90.2.1

These organic woodland standards cover what you must do for your farm woodland and trees, forestry, agroforestry and non-timber forest products to be certified as organic.

90.2.2

Forests, woodlands and their associated lands contribute to people's social, economic, ecological and cultural needs. Their characteristics vary between farms and regions but they all have the potential to provide important benefits.

90.2.3

Trees, forests, woodlands, hedgerows and parkland are essential habitats on farms. They:

- contribute to ecological diversity
- provide shelter and feed for livestock
- protect soils from erosion and regulate rainfall run-off
- harbour beneficial insects for pest management, and
- provide opportunities to integrate with cropping.

90.2.4

In agroforestry there is more intimate integration of trees, crops, livestock and fish. Agroforestry management encourages the contribution of complementary benefits from all these components.

90.2.5

The standards apply to the production and harvesting of all wood and non-wood products from any woodland type, including:

- boreal, temperate and tropical forests
- plantations
- natural and semi-natural forests
- non-intervention forest
- other systems in which a forest structure is expected to develop
- farm woodland and farmland trees, and
- agroforestry.

90.2.6

Examples of products for which you can apply for certification using these and other sections of our standards that we specify, include:

- sawn wood
- charcoal
- firewood
- coppice products, and
- woodland fungi and fruits.

90.2.7

We regard FSC principles and criteria as the global benchmark of responsible forest management.

90.3 Organic woodland certification

90.3.1

For your timber and wood products to be eligible for organic status, you must comply with:

- these organic woodland standards, and
- your FSC endorsed national standard (UKWAS in the UK), or
- if your country has no FSC endorsed national standard, you must meet the Soil Association Woodmark Generic Standard in addition to these standards.

Note - The principle requirements of FSC/UKWAS are:

- i. to have a detailed five year management plan and an outline 20 year management plan
- ii. to have maps of the woodland or forest area including, for example, biodiversity features, public access and felling areas, and
- iii. to consult with relevant interested parties about your forest or woodland management.

Note - we will use FSC inspection procedures and scoring systems. Please ask us if you would like a copy of the Woodmark Generic Standard, FSC or UKWAS standards. To find out whether you have an endorsed national standard please look at the FSC website www.fsc.org.

90.3.2

When you apply for organic woodland certification, you must manage all the forest, trees and woodland on your farm to these standards.

90.3.3

With our approval, you may add additional separate woodland areas to your farm woodland certification.

90.3.4

For your timber to be eligible for organic status, it must come from a functional forest or woodland unit, which we must agree with you. The forest or woodland unit can consist of several separated areas, but you must manage them all under one management plan.

90.3.5

If your woodland unit is made up of several separated areas, you must convert all of them to organic woodland management at the same time.

Note - if you manage more than one woodland unit, we will use the Woodmark multiple site standard to inspect them either individually or as one whole.

90.4 Woodland management

90.4.1

Your organic woodland management should:

- beneficially integrate farm and woodland management
- sustainably manage non-timber forest products, and
- develop the potential for woodlands to provide environmental benefits such as:
 - i. fostering and improving biodiversity
 - ii. revitalising the atmosphere
 - iii. acting as carbon sinks, and
 - iv. helping with flood control.

90.4.2

The area of your farm woodland should be appropriate for the landscape in your locality or region.

90.4.3

You should protect existing trees and woodland on your farm to maximise their potential benefits for people, wildlife and the countryside.

90.4.4

You, or a competent expert, should carry out a National Vegetation Classification (NVC) survey to an appropriate level of all woodland areas on your farm.

90.4.5

You should:

- allow and promote natural regeneration of appropriate species and quality in woodland areas
- use continuous cover systems where appropriate, and
- keep dead wood (standing and on the ground) where it does not threaten forest health or public safety.

90.4.6

If you have:

- ancient trees
- trees of particular landscape or conservation value
- areas of ancient coppice stools, or
- trees with Tree Preservation Orders

You must:

- identify them
- include them on maps, and
- detail in your FSC/UKWAS management plan how you will maintain them in the long term.

90.4.7

You must use biodegradable chainsaw oils.

90.4.8

You must not plant on peat, moorland or unimproved grassland except with our permission.

Note - we will only consider plantings on these land types for orchards or agroforestry. In the UK you may need to complete an Environmental Impact Assessment to change the use of these habitats. Please contact the Defra helpline on 0800 028 2140.

90.4.9

You must not plough closer to tree trunks than a line drawn vertically from the outermost canopy except with our permission.

Note - we will only give permission when we have approved this as part of an agroforestry system.

90.4.10

You must not:

- plant on areas where it will have negative environmental or social effects, including those on water resources, or
- plant invasive non-native shrubs in organic woodland areas.

90.5 Protection from stock and game rearing

90.5.1

If you rear game birds and give them access to organic woodland areas you must:

- site release pens in appropriate vegetation, such as scrubby cover with some trees
- stock release pens with fewer than 700 birds per hectare
- use no more than a third of your total woodland and scrub areas for release pens, and
- feed game birds only non-GMO feeds.

90.5.2

To protect woodland areas from livestock and game, you must:

- control access to woodland by livestock and game to prevent damage and ensure best use of the resource, and
- protect special conservation features from damage by stock, game and driven shoots.

90.5.3

With our approval, you may use straw as a base for spreading feed.

90.5.4

You must not routinely treat game birds with veterinary medicines, except for complementary therapies.

90.6 Controlling weeds, pests and disease

90.6.1

You should control weeds, pests and disease by using appropriate cultural and management methods that enhance the natural health and vitality of the trees.

90.6.2

To control weeds, pests and disease, you may use the methods and substances outlined in section 4.10 Controlling weeds and section 4.11 Controlling pests and disease. Please be aware that you must get our permission before using some of these methods and substances.

90.6.3

You should use biological control methods to control pests and disease.

90.6.4

You should use composted mulch to avoid denitrifying the soil and hence the need to add fertiliser.

90.6.5

You should not plant conifers in areas where there is high risk from the pathogen *Heterobasidium annosum*. You should consider using alternative silvicultural systems such as continuous cover.

Note - in the UK please refer to the Forestry Commission publications and UKWAS for more information on treatment methods for *Heterobasidium annosum*.

90.6.6

You must not use:

- herbicides
- urea as a fungicidal stump treatment.

90.7 Woodland fertility

90.7.1

As a long-term production system, woodland is able to generate its own fertility through nutrient recycling and generally does not need supplementary fertilisation.

90.7.2

You should manage your woodland to avoid using fertilisers.

90.7.3

You must design new plantings to avoid the need to use fertilisers. We will ask you for evidence that you have designed new plantings to avoid using fertilisers.

90.7.4

You may use appropriate mycorrhizal preparations to enhance fertility in the woodland.

90.7.5

If you bring in materials to increase soil fertility, you may only use the methods and substances outlined in section 4.7 Manure, compost and plant wastes and section 4.8 Mineral fertilisers and supplementary nutrients. Please be aware that you must get our approval before using some of these methods and substances.

90.7.6

With our approval, in agroforestry systems, you may use:

- livestock manure, compost and plant waste as outlined in section 4.7, and
- mineral fertilisers and supplementary nutrients as detailed in section 4.8. You may only use these as a supplement to using compost, manure and plant waste.

90.7.7

You must not:

- use fertilisers to enhance the growth of healthy trees
- use any fertilisers we do not allow in sections 4.7 and 4.8, or
- chemically treat mineral fertilisers to make them more soluble.

90.8 Managing fire

90.8.1

If you intend to use fire as a management tool, you must:

- tell us you are going to use it and in what way
- take into account traditional knowledge on how and when to use fire, and
- assess the environmental impact of using fire, for example, the effect of smoke on lichen from charcoal burning.

90.8.2

With our approval, you may burn lop and top and prunings. You must:

- justify why you need to do this, and
- carefully plan the location and density of fires and charcoal kilns to:
 - i. avoid damaging coppice stools, trees and conservation features, and
 - ii. minimise the health and safety risks.

90.9 Parkland, hedgerows, veteran trees and avenues

90.9.1

You should plant trees on pasture and in hedgerows where this is appropriate for the landscape.

90.9.2

You should retain mature specimen trees and dead hulks unless they are a safety hazard. If you remove trees, you should replace with a protected sapling of an appropriate species.

90.9.3

With our permission, and only in exceptional circumstances, you may remove mature specimen trees and dead hulks.

90.10 Traditional coppice

90.10.1

You may manage coppice areas on a minimum intervention basis. This may include, for example:

- singled to high forest techniques, or
- traditional coppice rotations.

90.10.2

If you are managing your coppice to a traditional coppice rotation, you should maintain a series of age classes through a rotation of coppice coupes or coppice with standards.

90.10.3

In addition to the FSC/UKWAS requirements (see FSC/UKWAS standards), you must detail in your five year management plan:

- how you will preserve or enhance the long term productive potential of the coppice areas
- the proposed coppice cycle, and
- if relevant, the species, density and management of standards within the coppice areas.

90.10.4

If you are managing your coppice area on a traditional coppice rotation, you must:

- maintain the long term productive potential of coppice areas through on going planting and natural regeneration and appropriate techniques such as layering
- protect coppice stools from grazing by wild animals or livestock, and
- time your coppicing to minimise the impact of your operations on the surrounding environment.

90.10.5

You may have short rotation coppice systems, provided you can comply with these woodland standards.

90.11 Non-timber forest products

90.11.1

The harvest of non-timber forest products is often very important to local communities and to the preservation of the woodland or forest. Diversity within the woodland or forest is enhanced by maintaining the ecological conditions that these products need.

90.11.2

You must manage your woodland or forest sustainably, which will ensure the sustainable harvest of non-timber forest products.

90.11.3

If you produce and sell timber and non-timber forest products you must comply with these standards and those in Chapter 9 Wild harvesting or Chapter 15 Beekeeping.

90.11.4

You do not need to comply with these standards if you:

- only harvest and sell non-timber forest products (including bee products), and not timber products, or
- do not have management responsibility for the woodland or trees.

90.12 Agricultural production in woodland

90.12.1

If you use woodland or forest areas for organic agriculture (for example for pigs or poultry) as well as woodland products, you must manage these areas to these organic woodland standards.

90.12.2

Where you allow livestock access to woodland or forest areas, but you are not selling any woodland products as organic, you must provide us with a plan showing how you will prevent damage to the woodland. You do not need to meet these organic woodland standards.