



Soil Association

Organic aquaculture standards

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## Contents

OP: Overall principles of organic aquaculture.....	3
SS: Site selection.....	7
OA: Origin of aquaculture animals.....	8
ON: Simultaneous production of organic and non-organic.....	9
AH: Aquaculture husbandry.....	11
SD: Species-specific production requirements and stocking densities.....	13
AL: Aquaculture livestock management.....	16
AC: Aquatic containment systems.....	19
AM: Antifouling measures and cleaning.....	20
FF: Feeding fish, crustaceans and echinoderms.....	22
FC: Feeding carnivorous aquaculture species.....	22
FO: Feeding other species.....	24
FJ: Feeding organic juveniles.....	24
AF: Aquaculture feeds.....	25
DP: Disease prevention and veterinary treatments.....	28
VT: Veterinary treatments.....	30
TT: Transport.....	33
CP: Conversion periods.....	33
AB: Bivalves.....	34
GS: General standards.....	37
US: Using the Soil Association symbol.....	38
SL: What the symbol should look like.....	39
OL: The EU organic logo.....	40
AP: Approved product scheme.....	42
IN: Inspection.....	43
CN: Certification.....	44
EP: Employment.....	46
OS: Other statutory requirements.....	46
RK: Records you need to keep.....	47
LB: Labelling.....	49
GN: Genetic engineering and nanotechnology.....	52
PK: Packaging.....	53
Annex I.....	55

## OP: Overall principles of organic aquaculture

### OP a. Scope

These standards apply to species of fish, crustaceans, echinoderms and molluscs. They can be applied with the necessary modifications to zooplankton, micro crustaceans, rotifers, worms and other aquatic feed animals but you must contact us if you want to use them for these species.

*(EC) 889/2008 Art. 25a*

### Guidance

We have separate standards for organic seaweed and algae production. If you are producing aquaculture animals which are not under this scope please contact us.

### OP b. Other statutory requirements

You must make sure your aquaculture production complies with all relevant legal requirements.

*(EC) 834/2007 Art. 1 (4)*

### Guidance

This includes, but is not limited to, legislation for water quality, employment and animal welfare.

### OP c. Overall principles

Organic production is based on the following principles:

1. Appropriate design and management of biological processes based on ecological systems.
2. Using living organisms and mechanical production methods.
3. Using natural resources internal to the system.
4. Sustainable exploitation of fisheries.
5. Using preventative and precautionary measures and risk assessment when appropriate.
6. The design and management of organic systems which makes the best use of natural resources and ecology to prevent the need for external inputs.
7. Where this fails or where external inputs are required the use of external inputs is limited to organic or natural or naturally-derived substances.
8. To limit the use of chemically synthesised inputs to situations where appropriate alternative management practices do not exist, or natural or organic inputs are not available, or where alternative inputs would contribute to unacceptable environmental impacts.
9. The exclusion of genetically modified organisms (GMOs) and products produced from or by GMOs with the exception of veterinary medicinal products.
10. The respect of regional, environmental, climatic and geographic differences and appropriate practices that have evolved in response to them.

*(EC) 834/2007 Art. 4*

### OP d. Specific principles for aquaculture

Organic aquaculture systems are based on:

1. The continuing health of the aquatic environment and the quality of surrounding aquatic and terrestrial ecosystems
2. Feeding of aquatic organisms with feed from sustainable exploitation of fisheries as defined by [Art 3 Reg 2371/2002 Conservation and sustainable exploitation of fisheries resources under Common Fisheries Policy](#), or
3. With organic feed made of agricultural ingredients from organic farming and natural non-agricultural substances.

*(EC) 834/2007 Art. 5*

### OP e. Planning and managing your organic system

Before you start your organic aquaculture enterprise you must write a plan detailing a full description of your premises, units, activities and management.

This must include:

- a) a full description of the installations on land and at sea
- b) facilities used for the receipt of goods, processing, packaging, labelling and storage
- c) procedures used for transporting aquaculture animals and products
- d) the environmental assessment as outlined in standard OS e.
- e) the sustainable management plan as outlined in standard OS f.

This must include the practical measures to be taken to ensure compliance with these organic standards. This must be completed and **kept updated as necessary**.

*(EC) 889/2008 Art. 63; Art.64, Art. 73a, Art. 79a, Art. 80*

### Guidance

To help you meet this requirement we have created an organic plan format for you, which you can access via your online portal or you can contact your Certification Officer for an offline version or further guidance. It will contain all the relevant sections of your planned enterprise. The relevant sections must be completed and kept up-to-date from the start of your organic enterprise.

If you make any significant changes in your operation you must either update your organic plan or inform your Certification Officer. Important changes are for example change of location of an activity, change of ownership, or change of contact person. Another important change is alteration of certified production so that information previously submitted about the production is no longer correct.

You must let us know if and when you plan to expand into new areas. For example, if you currently store organic products and wish to start packing or processing them, if you want to start importing products from outside the EU. Depending on **what you're adding or expanding, we will need to update your certificates and you may need an additional inspection or licence.**

### OP f. Environmental assessment

If your site produces more than 20 tonnes of organic aquaculture product per year including seaweed, you must draw up an environmental assessment proportionate to the production unit. The assessment must be based on *Annex IV to Council*

*Directive 85/337/EEC* which is the *Environmental Impact Assessment Directive*. It requires you to consider the conditions of the site, its current and future likely effects on the immediate environment. If the unit has already been subject to an equivalent assessment then it can be used for this purpose.

*(EC) 889/2008 Art. 6b (3)*

### Guidance

1. We will measure whether your site produces more than 20 tonnes of aquaculture product on a fresh weight basis.
2. Council Directive 85/337/EEC can be accessed online [here](#)
3. Details of the environmental impact assessment can be recorded in your organic plan and should include descriptions of:
  - the production unit, including physical characteristics, construction, production processes, inputs and the period when the unit will be in use
  - the aspects of the environment that the production unit will affect, such as aquatic flora and fauna, air, climatic factors, material assets including architectural and archaeological heritage, landscape and the interrelationship between these factors
  - the pollutants emitted by the unit including the elimination of waste
  - measures adopted to prevent, reduce and where possible offset significant adverse effects on the environment.

### OP g. Sustainable management

You must provide us with a sustainable management plan drawn up in verifiable coordination with neighbouring operators for aquaculture. The plan must be proportionate to the production unit and include:

1. The environmental effects of the operation.
2. Details of environmental monitoring.
3. Measures to minimise negative impacts on the surrounding aquatic and terrestrial environment.
4. Where applicable, details of nutrient discharge into the environment per production cycle or per annum.
5. Details of how technical equipment will be surveyed and repaired where necessary.
6. A waste reduction schedule to be put in place at the start of organic production
7. Defensive and preventative measures taken against predators (in line with national rules and the [Habitats Directive 92/43/EEC](#)).
8. If you produce bivalve molluscs your plan must include a summary of the survey and report required in standard AB h.

*(EC) 889/2008 6b (2) & (4), Art.25b (2) & (3), Art. 25q, Art. 79a*

### Guidance

Provide details of your sustainable management in your organic plan. At inspection we will check this is appropriate to your system. Ensure you review and update your plan annually and include details of neighbouring operations.

Examples of what your plan needs to cover are:

1. Energy and water use; impact on wild species, for example seals and eider ducks which are a species of conservation interest.
2. Risks identified through environmental monitoring and how these will be

managed.

3. How mortalities will be managed; identification and recapture of escapees; measures to minimise waste feed.
4. The impact of any nutrient and effluent build up on the surrounding aquatic environment and how this is managed. Consider important habitats such as calcified seaweed (maerl) beds.
5. Procedures to log and maintain all technical equipment.
6. How site waste is managed to avoid environmental damage, protect animal health and avoid attracting pests. For example using nets and ropes made of durable material that is suitable for re-use.
7. Identification of potential predators e.g. seals, birds, biofouling organisms, and the steps you take to prevent and deter them in line with national rules and Habitats Directive.

#### OP h. Renewable energy and recycling

You must preferably use renewable energy sources and recycled materials. Where possible, the use of residual heat should be limited to energy from renewable sources.

*(EC) 889/2008 Art. 6b (5)*

#### Guidance

Record any measures you have in place in your organic plan.

#### OP i. Reducing the risk of contamination

You must identify any risk of contamination to your organic products by any unauthorised or prohibited substances and ensure measures are in place to reduce the risk of contamination. When new risks are identified you must review the measures you have in place and ensure they remain appropriate. The risks identified and the measures in place must be documented.

*(EC) 889/2008 Art. 63 (1c)*

#### Guidance

In your organic plan show the risks of contamination to your organic enterprises at all stages of production, including processing (if relevant), storage and transport. Include what measures you have put in place to minimise all the risks identified and what procedures and records are in place to ensure that these measures are being carried out effectively. Examples of risks include:

- feed containing non-permitted ingredients
- other local non-organic sites
- local pollution events e.g. oil spill, sewerage outlets, flooding
- non-permitted cleaning products.

Your plan must include how you determine that the measures you have in place to minimise the risk of contamination are sufficient and how you monitor that they remain effective. This could include details of any sampling and testing that you carry out.

Containers for storage or transport must be of food grade quality.

All procedures must be consistently followed and appropriate records must be maintained to evidence this. Your Inspector will be checking that the procedures you have in place are adequate to reduce the risk of contamination.

Staff training is an important way to ensure that risk of contamination is minimised. Ensure that all new staff are adequately trained particularly when changes are made to the Soil Association organic standards and your own operational procedures.

#### OP j. Cleaning standards

You must have suitable cleaning measures in place to prevent contamination and maintain the integrity of your products throughout production, processing and storage.

*(EC) 889/2008 Art. 63(1c)*

#### Guidance

In your organic plan you need to set out your cleaning procedures, with details of how you clean the production areas, storage areas and all equipment used for organic. Explain how you limit the risk of contamination of organic product from microbial contaminants, from cleaning chemicals and from non-organic product.

Your cleaning procedures need to be clear and need to set out what will be cleaned, how, with what frequency (e.g. daily, weekly, monthly or annually) and what chemicals and equipment needs to be used.

## SS: Site selection

### SS a. Site suitability

Your production units must be sited in locations that are free from contamination by substances not permitted in organic production and that are free from pollution or pollutants that would affect the organic integrity of the product.

*(EC) 889/2008 Art. 6b (1)*

#### Guidance

When you start your aquaculture operation, or when you add new sites, submit details of the assessments you have made in your organic plan.

- This should include details of neighbouring operations and an assessment of the contamination risk these pose and how this will be minimised.
- Ensure that the mean flush rate of each site is appropriate to the species you intend to farm there.

### SS b. Organic and non-organic production

Organic and non-organic production units must be adequately separated based on:

- a. the natural situation
- b. separate water distribution systems
- c. distance
- d. tidal flow
- e. upstream and downstream location of the organic production unit.

*(EC) 889/2008 Art. 6b 2*

*(EC) 834/2007 Art. 11*

#### Guidance

If you are producing organic and non-organic products, detail the measures you

take to ensure adequate separation in your organic plan.

### SS c. Separation distances

Your competent authority may set minimum separation distances between organic and non-organic production units.

*(EC) 889/2008 Art. 6b 2*

#### Guidance

Check with us to find out if your competent authority has set specific separation distances between organic and non-organic production units in your area.

### SS d. Suitable locations

Your competent authority may designate locations or areas which they consider to be unsuitable for organic aquaculture.

*(EC) 889/2008 Art. 6b 2*

#### Guidance

Check with us to find out if your competent authority has designated any locations unsuitable for organic aquaculture.

## OA: Origin of aquaculture animals

### OA a. Origin of organic aquaculture animals

Locally grown species must be used and breeding must aim to give strains which are more adapted to organic farming conditions, good health and good utilisation of feed resources. Documentary evidence of their origin, treatment and date of arrival must be provided. You must choose species which can be farmed without causing significant damage to wild stocks.

*(EC) 834/2007 Art. 15c(ii)*

*(EC) 889/2008 Art. 25d; Art. 79b*

#### Guidance

Show how you choose suitable species from appropriate sources in your organic plan.

### OA b. Breeding techniques

When breeding organic aquaculture animals you must not use artificial hybridisation, artificial induction of polyploidy, cloning and production of monosex strains, except by hand sorting.

*(EC) 834/2007 Art. 15c(i)*

#### Guidance

Detail your breeding techniques in your organic plan.



**OA c. Using non-organic aquaculture animals**

When organic aquaculture animals are not available, you may bring in wild caught or non-organic stock to improve the genetics of your stock or for breeding purposes. You must keep these animals under organic management for at least three months before they are used for breeding.

*(EC) 834/2007 Art. 15(1a)*

*(EC) 889/2008 Art. 25e*

**Guidance**

To support the organic sector and produce your stock in line with organic principles, use organic aquaculture animals when they are available. If you need to use non-organic or wild caught aquaculture animals (see standard OA d.), demonstrate the lack of availability of organic animals by providing us with evidence that you have contacted suppliers within a suitable geographic area.

**OA d. Collection of wild aquaculture juveniles**

You may only collect wild aquaculture juveniles for on-growing in the following circumstances:

1. As natural influx of fish or crustacean larvae and juveniles when filling ponds, containment systems and enclosures
2. European glass eel, provided that an approved eel management plan is in place for the location and only whilst artificial reproduction of eel remains unsolved.
3. The collection of wild fry of species other than European eel for on-growing in traditional extensive aquaculture in wetlands, such as brackish water ponds, tidal areas and coastal lagoons, closed by levees and banks, provided that:
  - a. the restocking is in line with management measures approved by the relevant authorities to ensure the sustainable exploitation of the species
  - b. the fish are fed exclusively with feed naturally available in the environment.

*(EC) 889/2008 Art. 25e (4)*

**OA e. On-growing (Revised 2016)**

When organic juveniles are not available, you may bring in non-organic juveniles for on-growing. At least the last two thirds of the production cycle must be under organic management. From December 2014 you may bring in up to 50% non-organic juveniles but you must reduce the amounts you bring in to zero by 31 December 2016.

*(EC) 889/2008 Art. 25e (2, 3)*

**Guidance**

You need to seek prior approval from your Certification Officer before non-organic juveniles are brought in – please contact us. The EU Commission is compiling a database to record availability of organic juveniles and the data you provide is essential.

**OA f. Replacing stock in cases of high mortality (new 2016)**

When there is high mortality of aquaculture animals caused by the following circumstances\*, you may bring in non-organic stock when organically reared animals are not available. You must keep these animals under organic management for at least the latter two thirds of the duration of the production

cycle.

- Natural disasters
- Adverse climatic events
- Sudden water quality and quantity changes for which the operator is not responsible
- Diseases in aquaculture, failure or destruction of production facilities for which the operator is not responsible.

*\*Regulation (EU) No 508/2014 Art. 57(1)(a) to (d)*  
*(EC) 889/2008 Art. 47(f)*

#### Guidance

You must contact your Certification Officer if you think you need to bring in non-organic stock because of the circumstances above.

## ON: Simultaneous production of organic and non-organic

### ON a. Producing organic and non-organic aquaculture animals

1. Your competent authority on organic production may permit hatcheries and nurseries to rear both organic and non-organic juveniles in the same holding provided there is clear physical separation between the units and they use separate water distribution systems.
2. In the case of grow-out production your competent authority on organic production may permit organic and non-organic grow-out production on the same holding provided:
  - a. the animals are in different production phases, and
  - b. different handling periods are implemented.
3. If you manage both organic and non-organic production units, the units which produce non-organic aquaculture animals will also be subject to the organic inspection requirements.

You must keep records to demonstrate compliance with this standard.

*(EC) 834/2007 Art.15b(iv)*  
*(EC) 889/2008 Art.25c and Art. 79d*

#### Guidance

You will need to demonstrate adequate separation in order for your competent authority to consider requests to permit organic and non-organic production units on the same holding. Use your organic plan to show how you ensure separation between organic and non-organic operations. You will need to make sure there is no risk of contamination from your non-organic production.

## AH: Aquaculture husbandry

### AH a. Meeting the needs of your aquaculture animals

1. The developmental, physiological and behavioural needs of your aquaculture animals must be met through:
  - a. husbandry practices
  - b. feeding
  - c. design of installations
  - d. stocking densities and
  - e. water quality.
2. Staff keeping aquatic animals must have the necessary knowledge and skills to manage their health and welfare needs.

*(EC) 834/2007 Article 15b (i, ii)*

#### Guidance

In your organic plan demonstrate how you monitor each of the parameters above to ensure the welfare needs of your animals are met. This standard applies to all species under your management including, for example, cleaner fish. Adhere to relevant animal welfare legislation in your country of production.

### AH b. Installation design

The design and construction of the installations for containing farmed species must provide flow rates and physiochemical parameters that protect the **animals'** health and welfare and provide for their behavioural needs.

*889/2008 Art. 25f (3)*

#### Guidance

Demonstrate this in your organic plan.

### AH c. Holding facility design

You must design the holding facilities to cater for the species specific needs of the aquaculture animals so that they:

1. have sufficient space for their wellbeing
2. are kept in water of good quality with sufficient oxygen levels, and
3. are kept in appropriate temperature and light conditions

For freshwater fish, the bottom of the holding facilities must be as close as possible to natural conditions.

For carp, the holding facilities must be natural earth.

*(EC) 889/2008 Art.25f (1)*

#### Guidance

Use your organic plan to demonstrate how you have designed your holding facilities to meet the specific needs of the species you are farming. Species-specific stocking densities are shown in section SD.

#### AH d. Escapes

Installations for containing farmed species must be designed, located and operated to minimise risk of escapes. If fish or crustaceans escape, you must take appropriate action to reduce the impact on the local ecosystem, including recapture where appropriate. You must keep records of escape incidents and actions taken to reduce the impact on the local ecosystem, including recapture efforts.

*(EC) 834/2007 Art. 15b (iii)*

*(EC) 889/2008 Art.25f (4, 5), Art. 79b*

#### Guidance

Detail what measures are in place to minimise escapes in your organic plan e.g. net maintenance, design of installation etc.

## SD: Species-specific production requirements and stocking densities

### SD a. Planning stocking densities

The maximum stocking densities are set out in the standards below. You must consider the welfare of the farmed fish when planning stocking densities and monitor all of the following:

1. fin damage
2. other injuries
3. growth rate
4. normal behaviour and behaviour indicating stress
5. overall health
6. water quality

*(EC) 889/2008 Art. 25f (2)*

#### Guidance

In your organic plan demonstrate how you plan your stocking density and monitor each of the levels above.

### SD b. Stocking densities for different species

Your stocking densities must not exceed the maximum levels set out below.

*(EC) 889/2008 Art. 25(f) (2) & Annex XIIIa*

#### Guidance

Stocking densities are calculated per individual net pen. Show how you plan, measure and monitor stocking density in your organic plan.

### SD c. Organic production of salmonids in fresh water

Includes: Brown trout, Rainbow trout, American brook trout, salmon, charr, grayling, American lake trout (or grey trout), huchen

<b>Production system</b>	On-growing farm systems must be fed from open systems. The flow rate must ensure a minimum of 60 % oxygen saturation for stock and must ensure their comfort and the elimination of farming effluent.
<b>Maximum stocking density</b>	Salmonid species not listed below: 15 kg/m <sup>3</sup> Salmon: 20 kg/m <sup>3</sup> Brown trout and rainbow trout: 25 kg/m <sup>3</sup> Arctic charr: 25 kg/m <sup>3</sup>  <i>(EC) 889/2008 Annex XIIIa</i>

### SD d. Salmonids in sea water

Includes: Salmon, brown trout, rainbow trout

<b>Maximum stocking density</b>	10 kg/m <sup>3</sup> in net pens  <i>(EC) 889/2008 Annex XIIIa</i>
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SD e. Organic production of cod, other Gadidae, sea bass, sea bream, meagre, turbot, red porgy, red drum and other Sparidae, and spinefeet

<b>Production system</b>	In open water containment systems (net pens/cages) with minimum sea current speed to provide optimum fish welfare or in open systems on land.
<b>Maximum stocking density</b>	For fish other than turbot: 15 kg/m <sup>3</sup> For turbot: 25 kg/m <sup>2</sup> <i>(EC) 889/2008 Annex XIIIa</i>

SD f. Organic production of sea bass, sea bream, meagre, mullets and eel in earth ponds of tidal areas and coastal lagoons

<b>Containment system</b>	Traditional salt pans transformed into aquaculture production units and similar earth ponds in tidal areas
<b>Production system</b>	There shall be adequate renewal of water to ensure the welfare of the species. At least 50 % of the dikes must have plant cover. Wetland based depuration ponds required.
<b>Maximum stocking density</b>	4 kg/m <sup>3</sup> <i>(EC) 889/2008 Annex XIIIa</i>

SD g. Organic production of sturgeon in fresh water

Species concerned: *Acipenser* family

<b>Production system</b>	Water flow in each rearing unit shall be sufficient to ensure animal welfare. Effluent water to be of equivalent quality to incoming water.
<b>Maximum stocking density</b>	30 kg/m <sup>3</sup> <i>(EC) 889/2008 Annex XIIIa</i>

**SD h. Fish in inland waters**

Species concerned: Carp family (*Cyprinidae*) and other associated species in the context of polyculture, including perch, pike, catfish, coregonids, sturgeon.

1. Fishponds must be fully drained periodically
2. Lakes must be devoted exclusively to organic production, including the growing of crops on dry areas.
3. The fishery capture area must be a suitable size to provide optimal comfort for the fish and equipped with a clean water inlet.
4. The fish must be stored in clean water after harvest.
5. You may only use organic and mineral fertilisers in the ponds which are listed in Annex I, with a maximum application of 20 kg nitrogen/ha.
6. You must not use treatments involving synthetic chemicals for the control of hydrophytes or plant coverage present in production waters.
7. Areas of natural vegetation shall be maintained around inland water units as a buffer zone for external land areas not in organic aquaculture production.
8. If you operate a polyculture system for your grow-out production, you must comply with these standards for all other species in the lake.
9. The total production of species is limited to 1500 kg of fish per hectare per year.

*(EC) 889/2008 Annex XIIIa*

**Guidance**

The frequency of drainage will depend on the type of pond, water flow, stocking rates and fish management. You should be able to demonstrate that the frequency will be sufficient to ensure good water quality, fish health and welfare. You can detail justification for the frequency of drainage in your organic plan.

**SD i. Organic production of Penaeid shrimps and freshwater prawns**

<b>Establishment of production unit/s</b>	Location to be in sterile clay areas to minimise environmental impact of pond construction. Ponds to be built with the natural pre-existing clay. Mangrove destruction is not permitted.
<b>Conversion time</b>	Six months per pond, corresponding to the normal lifespan of a farmed shrimp.
<b>Broodstock origin</b>	A minimum of half the broodstock shall be domesticated after three years operating. The remainder is to be pathogen free wild broodstock originating from sustainable fisheries. A compulsory screening to be implemented on the first and second generation prior to introducing to the farm.
<b>Eyestalk ablation</b>	Is prohibited.
<b>Maximum on farm stocking densities and production limits</b>	Seeding: maximum 22 post larvae/m <sup>2</sup> Maximum instantaneous biomass: 240 g/m <sup>2</sup> <i>(EC) 889/2008 Annex XIIIa</i>

**SD j. Organic production of crayfish**Species concerned: *Astacus astacus*, *Pacifastacus leniusculus*

<b>Maximum stocking density</b>	For small-sized crayfish (< 20 mm): 100 individuals per m <sup>2</sup> . For crayfish of intermediate size (20-50 mm): 30 individuals per m <sup>2</sup> . For adult crayfish (> 50 mm): 10 individuals per m <sup>2</sup> provided that adequate hiding places are available.  <i>(EC) 889/2008 Annex XIIIa</i>
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**SD k. Tropical freshwater fish**Species concerned: milkfish (*Chanos chanos*), tilapia (*Oreochromis* spp.), Siamese catfish (*Pangasius* spp.)

<b>Production systems</b>	Ponds and net cages
<b>Maximum stocking density</b>	Pangasius: 10 kg/m <sup>3</sup> Oreochromis: 20kg/m <sup>3</sup>

**AL: Aquaculture livestock management****AL a. Handling**

Handling of aquaculture livestock must be kept to a minimum. When handling is necessary, great care, proper equipment and protocols must be used to avoid stress and physical damage. You must handle broodstock in ways that minimise physical damage and you must use anaesthesia where appropriate.

You must keep grading operations to a minimum and perform them in such a way as to protect the welfare of the fish.

*(EC) 889/2008 Art. 25h (1)**(EC) 834/2007 Art. 15b***Guidance**

Detail in your organic plan how you monitor fish for signs of stress during and after handling. Examples of this include scale and fin damage, time out of the water.

- In seawater systems allowing sufficient time for your stock to swim through grading nets (passive grading) minimises stress and physical damage in the farmed fish.
- At your inspection, demonstrate how you ensure staff who handle fish receive regular training in the best handling methods.



**AL b. Withdrawing feed**

The maximum starve period before harvest for salmon, trout and Arctic charr is 40 degree days.

*Soil Association higher standard*

**Why?**

If feed is not withdrawn before handling or transport this can lead to poor water quality which has health implications. However, farmed fish become used to being fed regularly so the withdrawal of feed for prolonged periods is a welfare concern. One of the principles of good animal welfare is freedom from hunger therefore the Soil Association sets a limit on the permitted withdrawal period for feed for farmed fish before harvest. We use degree days as a measurement because in the wild, fish naturally eat less in colder waters.

**Guidance**

In your organic plan show how you manage starve periods before harvest to ensure they remain below this limit. Standard AH a. requires you to ensure that the developmental, physiological and behavioural needs of your aquaculture animals are met at all times.

**AL c. Harvest and slaughter**

Suffering of aquaculture animals, including at slaughter, must be kept to a minimum. You must only use slaughter techniques that render fish immediately unconscious and insensible to pain. You must take into account harvest sizes, species and production sites when considering optimal slaughter methods.

*(EC) 834/2007 Art. 15 1b (vi)*  
*(EC) 889/2008 Art. 25h (5)*

**Guidance**

The following methods of harvest and slaughter do not meet this standard:

- ice, except for warm water shrimp
- carbon dioxide
- suffocation, leaving stock to die in the open air
- exsanguination without stunning
- operating a rolling harvest where you starve all fish in the holding facility and selectively grade a number for slaughter on a repeated basis
- starving stock to modify carcass weight or quality (body composition).

**AL d. Lighting**

You may only prolong natural day-length to levels that respect the ethological needs, geographical location and general health of the aquaculture species. You may only prolong natural day-length to beyond 16 hours per day for reproductive purposes. You must avoid abrupt changes in light intensity at changeover time by using dimmable lights or background lighting.

*(EC) 889/2008 Art.25h (2)*

### Guidance

Detail how you manage lighting changes in your organic plan and record the hours and times when you use artificial lighting. The total amount of time of light may not exceed 16 hours. Justification for your lighting regimes can be detailed in your organic plan.

### AL e. Aeration and oxygen use

You may use aeration to ensure animal health, using aerators preferably powered by renewable energy sources where possible.

You may use oxygen only for animal health requirements and critical periods of production or transport in the following cases:

1. Exceptional cases of temperature rise.
2. Fall in atmospheric pressure.
3. Accidental pollution.
4. Occasional stock management procedures such as sampling and sorting.
5. In order to assure the survival of farmed aquaculture livestock.

You must record the use of aeration and oxygen in your production records.

*(EC) 889/2008 Art.25h (3, 4)*

### Guidance

In your organic plan, detail under what circumstances aeration would be used and the reasons why. If non-renewable energy sources are used please justify why renewable sources cannot be used.

### AL f. Use of hormones is prohibited

You must **not** use hormones or hormone derivatives.

*(EC) 889/2008 Art.25i*

### AL g. Humane handling and killing of fish

You must follow recent guidance on the humane slaughter of fish.

*Soil Association higher standard*

### Why?

Farmed fish are currently not covered by regulation protecting animals at the time of killing (EC No 1099/2009) yet they are as sensible to pain as any other terrestrial, farmed species. Welfare is at the heart of organic livestock production and recognising the particular needs of fish species is central to maintaining good welfare up until and including the point of slaughter. The guidelines identify practices which must be avoided or managed carefully to minimise stress, through best practice and system design. They specifically address the need for stunning before slaughter and the conditions under which fish welfare is safeguarded.

### Guidance

Follow the recommendations in the [Opinion on the welfare of farmed fish at the time of slaughter](#) by the Farm Animal Welfare Committee for the humane slaughter of all fish species. This applies to operators in all countries. This requirement will be updated in line with the latest scientific recommendation.

## AC: Aquatic containment systems

### AC a. Closed recirculation

Closed recirculation facilities are only permitted for:

1. hatcheries
2. nurseries and
3. the production of organisms used for organic feed

*(EC) 889/2008 Art. 25g (1)*

#### Guidance

A closed recirculation aquaculture system is one in which fish or bivalves are kept in tanks on land and the water is constantly cleaned and recycled back into the system.

### AC b. Artificial heating or cooling

You may only use artificial heating or cooling of water in hatcheries and nurseries. You may use natural borehole water to heat or cool water at all stages of production.

*(EC) 889/2008 Art.25g (4)*

#### Guidance

In your organic plan detail any heating or cooling you use and what stage of production it is used for.

### AC c. Rearing on land

For land-based rearing units with flow-through systems it must be possible to monitor and control the flow rate and water quality of in-flowing and out-flowing water.

At least five percent of the perimeter (land-water interface) of land-based rearing units must have natural vegetation.

*(EC) 889/2008 Art. 25g (2)*

#### Guidance

In your organic plan show how you monitor and measure flow rate and water quality. Your records for this will be checked at inspection.

### AC d. Sea based containment systems

Sea-based containment systems must be located where water flow, depth and water body exchange rates are adequate to minimise the impact on the sea bed and the surrounding water body. They must have suitable cage design, construction and maintenance with regard to their exposure to the operating environment.

*(EC) 889/2008 Art. 25g (3)*

#### Guidance

You will need to consider this in the design of your system – refer to standard SS a. site selection. In your organic plan document how these assessments have been made.

**AC e. Production in fishponds, tanks and raceways**

For aquaculture animal production in fishponds, tanks and raceways, waste nutrients must be collected or the quality of the effluent improved using:

1. natural filter beds
2. settlement ponds
3. biological or mechanical filters, or
4. seaweeds and/or animals (e.g. bivalves).

You must monitor the effluent at regular intervals.

*(EC) 889/2008 Art. 25b (4)*

**Guidance**

In your organic plan detail what measures of filtration are used and how you monitor levels of effluent.

**AM: Antifouling measures and cleaning****AM a. Bio-fouling**

You must remove bio-fouling organisms only by physical means and, where appropriate, return them to the sea at a distance from the farm.

*(EC) 889/2008 Art. 6e (1)*

**Guidance**

In your organic plan detail how you manage the removal of bio-fouling organisms.

**AM b. Cleaning equipment**

You must only clean equipment and facilities by physical or mechanical measures. Where this is not satisfactory, only the substances in standard AM e. may be used.

*(EC) 834/2007 Art. 15g*

*(EC) 889/2008 Art. 6e (2)*

**AM c. Storage of inputs**

Storage of input products other than those authorised in these standards is prohibited in the aquaculture production unit.

*(EC) 889/2008 Art. 35*

**Guidance**

Storing any non-permitted input product on the organic production unit is prohibited. This includes, but is not exclusive to non-permitted fertilisers, cleaning and disinfection products and anti-fouling substances.

**AM d. Cleaning and disinfecting**

You must properly clean and disinfect the holding systems, equipment and utensils on the production unit. You may only use products allowed in these standards.

*(EC) 889/2008 Art. 25s (2)*

**Guidance**

At inspection we may ask you to demonstrate how you clean and disinfect the holding systems using the products allowed, for example frequency of cleaning.

### AM e. Products for cleaning and disinfection for aquaculture animals and seaweed production

You may only use products which contain the following active substances, for cleaning and disinfection of equipment and facilities **in the absence** of aquaculture animals (\*):

1. ozone
2. sodium hypochlorite
3. calcium hypochlorite
4. calcium hydroxide
5. calcium oxide
6. caustic soda
7. alcohol
8. copper sulphate: only until 31 December 2015
9. potassium permanganate
10. tea seed cake made of natural camelia seed only for shrimp production
11. mixtures of potassium peroxomonosulphate and sodium chloride producing hypochlorous acid.

You may use only products which contain the following active substances, for cleaning and disinfection of equipment and facilities **in the presence and absence** of aquaculture animals (\*\*):

1. limestone (calcium carbonate) for pH control
2. dolomite for pH correction (use restricted to shrimp production)
3. sodium chloride
4. hydrogen peroxide
5. sodium percarbonate
6. organic acids (acetic acid, lactic acid, citric acid)
7. humic acid
8. peroxyacetic acids
9. peracetic and peroctanoic acid
10. iodophores (only in the presence of eggs).

The use of these substances must comply with relevant EU and national provisions as referred to in *Article 16(1) of Regulation (EC) No 834/2007*, and in particular with [Regulation \(EU\) No 528/2012](#) and [Directive 2001/82/EC](#) of the European Parliament and of the Council.

(\*) Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products (OJ L 167, 27.6.2012, p. 1)

(\*\*) Directive 2001/82/EC of the European Parliament and of the Council of 6 November 2001 on the Community code relating to veterinary medicinal product (OJ L 311, 28.11.2001, P. 1).

*(EC) 889/2008 Annex VII*

### Guidance

If you use nets for aquaculture animals, in your organic plan detail how you monitor that the cleaning methods or products you use do not adversely affect the aquaculture animals. You may use net polishers, however please detail the product

specifications in your organic plan.

At your inspection we will ask you for records of oxygen levels and feed consumption to demonstrate that the way in which you clean nets does not adversely affect the aquaculture animals.

## FF: Feeding fish, crustaceans and echinoderms

### FF a. Feeding priorities

1. You must feed your aquaculture animals with feed that meets the animals' nutritional requirements at the various stages of their development.
2. You must design your feeding regimes to prioritise:
  - a) animal health
  - b) the production of high quality aquaculture products including nutritional composition
  - c) low environmental impact.

*(EC) 834/2007 Art. 15d(i)*

*(EC) 889/2008 Art. 25j*

### Guidance

In your organic plan detail how you ensure your feed meets these requirements. For example how you:

- monitor fish health, and
- manage quantities of feed used to prevent waste.

## FC: Feeding carnivorous aquaculture species

### FC a. Feeding priorities for carnivorous aquaculture species

You must source feed for carnivorous aquaculture animals with the following priorities:

1. organic feed products of aquaculture origin
2. fish meal and fish oil from organic aquaculture trimmings
3. fish meal and fish oil and ingredients of fish origin derived from trimmings of fish already caught for human consumption in sustainable fisheries
4. organic feed materials of plant or animal origin
5. feed products derived from whole fish caught in fisheries certified as sustainable under a scheme recognised by the competent authority in line with the principles laid down in [Regulation \(EU\) No 1380/2013](#) of the European Parliament and of the Council.

You must record the type and quantity of feed. The feed ration may comprise a maximum of 60 % organic plant products.

*(EC) 834/2007 Art. 15d(ii)*

*(EC) 889/2008 Art. 25k; Art. 79b (d)*

### Guidance

You can choose from the above sources of feed in order to meet the animals'

nutritional requirements at the various stages of their development, but where possible they must be used in order of preference.

For operators in the UK, Defra has provided additional guidance on the sustainability criteria for whole fish. We can provide you with a copy on request.

#### FC b. Feeding histidine

When the feed sources allowed in these standards do not provide sufficient amounts of histidine to prevent cataracts and to meet the dietary needs of salmonid fish you may feed histidine sources produced through fermentation.

*(EC) 889/2008 Art. 25k (5)*

#### Guidance

Your organic plan must provide details for which groups of fish, life stages or times of year require additional histidine in their diets and the reasons why. At inspection you must be able to demonstrate that the histidine is from fermented sources. If you are buying an organic certified feed no additional checks are needed.

#### FC c. Feeding astaxanthin

You may feed salmon and trout astaxanthin derived primarily from organic sources such as organic crustacean shells, within the limit of their physiological needs. If organic sources are not available you may use natural sources of astaxanthin such as *Phaffia* yeast.

*(EC) 889/2008 Art. 25k (4)*

#### Guidance

Detail in your organic plan if you use astaxanthin and how you determine the quantities fed do not exceed the limit of the physiological needs of the species you are feeding.

## FO: Feeding other species

### FO a. Feeding freshwater species (Revised 2017)

1. In the grow-out stages, the following species must be fed feed which is naturally available in ponds and lakes:
  - a) carp and associated species in polyculture systems (perch, pike, catfish, coregonids and sturgeon)
  - b) Penaeid shrimp and freshwater prawns (*Macrobrachium* spp.)
  - c) tropical freshwater fish – milkfish, tilapia and Siamese catfish (*Pangasius* spp.)
2. When natural feed is not available in sufficient quantity, you may feed seaweed or organic feed of plant origin, preferably grown on the holding.
  - a) Where you are supplementary feeding Penaeid shrimp in this way you may feed a maximum of 25% fishmeal and 10% fish oil derived from sustainable fisheries.
  - b) You may also supplement the diets of Penaeid shrimp with organic cholesterol. Where organic cholesterol is not available, you may use non-organic cholesterol derived from wool, shellfish or other sources.
  - c) When you are supplementary feeding Siamese catfish (*Pangasium* spp.) in this way you may include a maximum of 10% fishmeal or fish oil derived from sustainable fisheries.
3. If you need to use additional feed you must keep records and explain why in your organic plan.

(EC) 834/2007 Art. 15d(ii)

(EC) 889/2008 Art. 25I (1); Art. 79b (d)

#### Guidance

For species reared in ponds and lakes, keep records of the need to use feed other than that which is naturally occurring in the environment.

## FJ: Feeding organic juveniles

### FJ a. Permitted feed for juveniles

In the larval rearing of organic juveniles, non-organic phytoplankton and zooplankton may be used as feed.

(EC) 889/2008 Art. 25Ia



## AF: Aquaculture feeds

### AF a. Permitted feed minerals

You may use the following feed materials of mineral origin in organic aquaculture feeds:

1. Calcareous marine shells
2. Calcium gluconate
3. Calcium carbonate
4. Defluorinated monocalciumphosphate
5. Defluorinated dicalciumphosphate
6. Magnesium oxide (anhydrous magnesia)
7. Magnesium sulphate
8. Magnesium chloride
9. Magnesium carbonate
10. Calcium magnesium phosphate
11. Magnesium phosphate
12. Monosodium phosphate
13. Calcium sodium phosphate
14. Sodium chloride
15. Sodium bicarbonate
16. Sodium carbonate
17. Sodium sulphate
18. Potassium chloride

*(EC) 834/2007 Art. 15d(iii, iv)*  
*(EC) 889/2008 Art. 25m (1), Annex V (1)*

### AF b. Calcified seaweed is prohibited

You must **not** use calcified seaweed, lithotamn or maerl in feeds for aquaculture livestock.

*Soil Association higher standard*

#### Why?

Calcified seaweed, lithotham and maerl refer to a collective group of coralline seaweeds, primarily of the species *Phymatolithon calcateum* and *Lithothamnion corallioides* (lithotamn). These seaweeds are extremely slow growing and live as loose lying twiggy nodules on the seabed, where they form a gravel substrate which is important for a diverse range of species. We prohibit the use of calcified seaweed (maerl) extracted from dredging because maerl beds are not able to sustain even limited extraction without deterioration due to their extremely slow growth.

#### Guidance

To demonstrate this, keep records of the feeds you use and the ingredients they contains.

### AF c. Permitted feed additives

You may use the following feed additives or products in animal nutrition and processing aids:

*(EC) 834/2007 Art. 15d (iii, iv)*  
*(EC) 889/2008 Art. 25m (2), Annex VI*

ID number	Substance	Description/conditions for use
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<b>Preservatives</b>		
E200	Sorbic acid	
E 236	Formic acid	
E 237	Sodium formate	
E 260	Acetic acid	
E 270	Lactic acid	
E 280	Propionic acid	
E 330	Citric acid	
<b>Antioxidants</b>		
E 306	Tocopherol-rich extracts of natural origin	
<b>Emulsifying and stabilising agents, thickeners and gelling agents</b>		
E 322	Lecithin	<ul style="list-style-type: none"> <li>• Only if derived from organic raw material</li> <li>• Use restricted to aquaculture animal feed</li> </ul>
<b>Binders, anti-caking agents and coagulants</b>		
E 535	Sodium ferrocyanide	Maximum dose rate of 20 mg/kg NaCl calculated as ferrocyanide anion
E 551b	Colloidal silica	
E 551c	Kieselgur (diatomaceous earth, purified)	
1m558i	Bentonite	
E 559	Kaolinitic clays, free of asbestos	
E 560	Natural mixtures of stearites and chlorite	
E 561	Vermiculite	
E 562	Sepiolite	
E 566	Natrolite-Phonolite	
1g568	Clinoptilolite of sedimentary origin, [All species]	
E 599	Perlite	
1g568	Clinoptilolite of sedimentary origin, [All species]	

Sensory additives		
2b	Flavouring compounds	Only extracts from agricultural products
Vitamins		
ID number	Substance	Description/conditions for use
3a	Vitamins and provitamins	<ol style="list-style-type: none"> <li>Derived from agricultural products</li> <li>If derived synthetically, only those identical to vitamins derived from agricultural products may be used for aquaculture animals.</li> </ol>
Trace elements		
E1 Iron	<ul style="list-style-type: none"> <li>ferric oxide</li> <li>ferrous carbonate</li> <li>ferrous sulphate, heptahydrate</li> <li>ferrous sulphate, monohydrate</li> </ul>	
E2 Iodine 3b201 3b202 3b203	<ul style="list-style-type: none"> <li>potassium iodide</li> <li>calcium iodate, anhydrous</li> <li>coated granulated calcium iodate anhydrous</li> </ul>	
E3 Cobalt 3b301  3b302 3b303  3b304  3b305	<ul style="list-style-type: none"> <li>cobalt (II) acetate tetrahydrate</li> <li>cobalt (II) carbonate</li> <li>cobalt(II) carbonate hydroxide (2:3) monohydrate</li> <li>coated granulated cobalt(II) carbonate</li> <li>cobalt (II) sulphate heptahydrate</li> </ul>	
E4 Copper	<ul style="list-style-type: none"> <li>basic cupric carbonate, monohydrate</li> <li>cupric oxide</li> <li>cupric sulphate, pentahydrate</li> </ul>	
E5 Manganese	<ul style="list-style-type: none"> <li>manganous carbonate</li> <li>manganous oxide</li> <li>manganous sulfate, monohydrate</li> </ul>	

E6 Zinc	<ul style="list-style-type: none"> <li>• zinc oxide</li> <li>• zinc sulphate monohydrate</li> <li>• zinc sulphate heptahydrate</li> </ul>	
E7 Molybdenum	<ul style="list-style-type: none"> <li>• sodium molybdate</li> </ul>	
E8 Selenium	<ul style="list-style-type: none"> <li>• sodium selenate</li> <li>• sodium selenite</li> </ul>	
<b>Zotechnical additives</b>		
4a, 4b, 4c and 4d	Enzymes and micro-organisms	

## DP: Disease prevention and veterinary treatments

### DP a. Animal health management plan

You must keep an animal health management plan. This must comply with [Council Directive 2006/88/EC of 24 October 2006](#) on animal health requirements for aquaculture animals and products and on the prevention and control of certain diseases in aquatic animals.

It must detail the biosecurity and disease prevention practices you have put in place and include a written agreement for health counselling, proportionate to the production unit, with qualified aquaculture animal health services. They must visit the farm not less than once per year and for bivalve shellfish not less than once every two years.

*(EC) 889/2008 Art. 25s (1)*

### Guidance

A copy of the written agreement of health counselling and your animal health management plan will be checked at inspection.

### DP b. Disease prevention

The design and management of your organic aquaculture system must rely primarily on preventive measures of disease control. This includes:

1. appropriate siting
2. optimal design of the holdings
3. the application of good husbandry and management practices
4. regular cleaning and disinfection of premises
5. high quality feed
6. appropriate stocking density, and
7. breed and strain selection.

You must keep records of all disease prevention measures giving details of fallowing, cleaning and water treatment.

*(EC) 834/2007 Art. 15. (f, (i))*

*(EC) 889/2008 Art. 79b (f)*

#### Guidance

In your organic plan detail information on design and management of your organic aquaculture system in relation to prevention of disease.

### DP c. Fallowing

Your competent authority will determine whether fallowing is necessary and the appropriate duration if so. In open water containment systems at sea, fallowing must take place after each production cycle. Fallowing is also recommended for production systems using tanks, fishponds and cages.

*(EC) 889/2008 Art. 25s (3a)*

#### Guidance

You must be able to demonstrate that the duration of your fallowing period will be sufficient to ensure good water quality and fish health and welfare. This will depend on site characteristics and management of the whole production area including, water exchange and health and disease history. You can detail justification for the duration of your site fallowing period in your organic plan.

### DP d. Cleaning structures during fallowing

When you put a cage or other structure used for aquaculture animal production into fallow it must be emptied, disinfected and left empty before being used again.

You must remove uneaten fish feed, faeces and dead animals promptly to:

1. avoid risk of significant effect on water quality
2. minimise disease risks, and
3. to avoid attracting insects or rodents.

You may use ultraviolet light and ozone to clean structures **only** in hatcheries and nurseries.

*(EC) 889/2008 Art. 25s (3c, 4, 5)*

#### Guidance

Describe in your organic plan the steps you take to clean structures before fallowing.

## VT: Veterinary treatments

### VT a. Disease treatment

If despite the preventative measures you have put in place to protect animal health, a health problem arises you may use the following veterinary treatments in order of preference:

1. homoeopathic remedies
2. plants and plant extracts (not those with anaesthetic effects)
3. trace elements, metals, natural immunostimulants or authorised probiotics.

Where these treatments are inappropriate or will not be effective to avoid suffering to the aquaculture animals allopathic treatment must be used (see standard below).

You must keep records of all disease treatment with details of the purpose, date and method of application, type of product and withdrawal period.

*(EC) 889/2008 Art. 25t (1), Art. 79b*

### Guidance

Provide details in your organic plan of:

- identification of the relevant disease/infection present on the holding
- types of treatment used and method of application
- date of application and length of treatment
- statutory and organic withdrawal period, and
- monitoring of effectiveness of treatment.

The withdrawal periods are set out in standard VT d.

**VT b. Allopathic treatment**

1. Allopathic treatment must be used immediately when no other method of treatment can prevent animal suffering or when required by compulsory eradication schemes. Routine prophylactic treatment with synthetic drugs is prohibited.
2. Allopathic drug treatments can be used for a maximum of two treatments per year, with the exception of vaccines. However, if the production cycle is less than one year duration, you may treat your stock with only one allopathic treatment.
3. If you have to treat your aquaculture animals with any veterinary medicinal product you must inform us or your national control authority before you market the animals as organic.
4. You must **not** sell aquaculture animals as organic if they have received more treatments than is permitted in these standards.
5. You must treat your animals if required by your national authority for the protection of human and animal health
6. You must keep records of all disease treatment.

*(EC) 834/2007 Art. 15 (f, (ii, iii, iv), Art. 25t (2, 5), Art. 79b*

**VT c. Parasite treatments**

1. With the exclusion of compulsory control schemes operated by national authorities, you may use parasite treatments to a maximum of twice per year. However, if the production cycle is less than 18 months you may use parasite treatments once per year.

*(EC) 889/2008 Art. 25t (3)*

2. You must give preference to the use of cleaner fish for biological control of ectoparasites or freshwater, marine water and sodium chloride solutions.

*(EC) 889/2008 Art. 25s (6)*

**Guidance**

You must obtain prior approval from your Certification Officer for all parasite treatments on each occasion.

Identification, treatment and prevention of parasites can be detailed in your organic plan.

Check with local agencies whether you need permission to use cleaner fish and outline how you ensure their welfare in your organic plan.

**VT d. Withdrawal periods**

You must employ the following withdrawal periods when treating your aquaculture species.

*889/2008 Art. 25t (4)*

Treatments	Organic withdrawal period
Allopathic veterinary and parasite treatments, including those under compulsory eradication and control schemes	Twice the legal withdrawal period
Treatments with no specified withdrawal period	48 hours

You must clearly identify aquaculture animals that have received veterinary medicinal treatments.

**VT e. Prohibited products**

You must **not** use organophosphate or avermectin-based veterinary medicines. If fish are treated with organophosphates or avermectins they cannot be sold as Soil Association organic.

*Soil Association higher standard*

**Why?**

Organophosphates (OPs) are the basis for a wide and commonly used range of insecticides and in veterinary medicine are used to treat external parasites. They have been linked with a range of human health problems. Although used at low enough doses not to harm livestock, OPs are highly and acutely toxic, and have a detrimental effect on marine species.

Avermectins are a group of drugs (e.g. ivermectin) used to treat insect infestations in livestock. When used on aquaculture animals, residues are excreted with the faeces and have detrimental effects on the aquatic environment, particularly sediment dwelling organisms.

**Guidance**

Soil Association organic status will be lost on animals treated with organophosphate or avermectin-based veterinary medicines. You must inform us when these treatments are used.



## TT: Transport

### TT a. Live fish

If you transport live fish you must ensure that welfare of the fish is maintained. This includes:

1. Transporting the fish in suitable tanks with clean water which meets their physiological needs in terms of temperature and dissolved oxygen.
2. Thoroughly clean, disinfect and rinse tanks before transport of organic fish and fish products.
3. Taking precautions to reduce stress. During transport, the density must not reach a level which is detrimental to the species.

You must keep records to demonstrate compliance with these transport requirements.

*(EC) 834/2007 Art. 15b(v)*

*(EC) 889/2008 Art. 32a*

### Guidance

In your organic plan demonstrate how animals are transported and how you monitor to ensure good welfare is maintained. At inspection, we may check your records of oxygen levels, temperature, transport times, stocking densities and cleaning.

## CP: Conversion periods

### CP a. Aquaculture conversion periods

The following conversion periods for production units must be applied for the following types of aquaculture facilities including the existing aquaculture animals.

Type of facility	Conversion period
Facilities that cannot be drained, cleaned and disinfected	24 months
Facilities that have been drained, or fallowed	12 months
Facilities that have been drained, cleaned and disinfected	6 months
Open water facilities including those farming bivalve molluscs	3 months

Your conversion period may be reduced if you can demonstrate that your facilities were not treated or exposed to products not allowed in these standards before the start of your conversion period. You must have documented evidence of this and your competent authority must approve any reduction.

*(EC) 889/2008 Art. 38*

### Guidance

Defra, the competent authority in the UK has confirmed that the conversion of the production unit can take place when the site is stocked and being managed to organic standards. This allows the animals and the site to convert to organic production simultaneously. Requests for a reduced conversion period must be submitted to your Certification Officer who will seek approval from the competent authority.

## AB: Bivalves

### AB a. Scope

These standards cover the production of mussels (*Mytilus* species), native oysters (*Ostrea edulis*), Pacific, Japanese or cupped oyster (*Crassostrea gigas*). You must also read and comply with section OP Overall principles of organic aquaculture.

### AB b. Growing area

1. You may establish a bivalve production unit in the same area of water as organic finfish and seaweed farming, also including gastropod molluscs such as periwinkles, in a polyculture system.
2. Your growing area must be of high ecological quality and must be in waters which meet the Criteria for Class A or Class B areas as defined in [Annex II of Regulation \(EC\) No 854/2004](#)
3. Your bivalve production unit must be delimited by posts, floats or other clear markers and must be restrained by net bags, cages or other man-made means as appropriate.
4. Organic shellfish farms must minimise risks to species of conservation interest.

(EC) 834/2007 Art. 15e(ii, iii)

(EC) 889/2008 Art. 25n

### Guidance

Please see section SS for guidance on suitable site selection.

### AB c. Nutritional requirements

Your bivalves must receive all their nutritional requirements from nature except in the case of juveniles reared in hatcheries and nurseries.

(EC) 834/2007 Art. 15e(i)

### AB d. Predators

If you use predator nets, their design must not allow diving birds to be harmed.

(EC) 889/2008 Art. 25n (3)

### Guidance

In your organic plan, include details of how you prevent and deter predators. If you use predator nets, demonstrate in your organic plan how you ensure and monitor that these are not causing harm to diving birds or mammals.

**AB e. Sourcing of seed**

You may use wild seed from outside the boundaries of the production unit if permitted by local legislation and if it causes no significant damage to the environment, but the seed must come from:

1. settlement beds which are unlikely to survive the winter or are surplus to requirements, or
2. natural settlement of shellfish seed on collectors.

You must keep records of how, where and when wild seed was collected to allow traceability back to the collection area.

*(EC) 889/2008 Art. 25o*

**AB f. Non-organic bivalve seed (Revised 2016)**

You may use seed from non-organic bivalve shellfish hatcheries until 31 December 2016, but this must be between 0% - 50% of your total seed requirements.

Note – this standard is being reviewed by the EU Commission and is likely to be updated during 2016. Contact us for more details.

*(EC) 889/2008 Art. 25o*

**Guidance**

In your organic plan detail the source of the seed you use.

**AB g. Cupped oyster**

For the cupped oyster (*Crassostrea gigas*) you must preferably use stock which is selectively bred to reduce spawning in the wild.

*(EC) 889/2008 Art. 25o*

**AB h. Bivalve management**

1. Your stocking densities must not be above those used for non-organic shellfish in the locality. You must make adjustments to sorting, thinning and stocking density according to the biomass and to ensure animal welfare and high product quality.
2. You must remove biofouling organisms by physical means or by hand and where appropriate return them to the sea away from shellfish farms.
3. You may treat shellfish once during the production cycle with a lime solution to control competing fouling organisms.

*(EC) 889/2008 Art. 25p*

**Guidance**

You can include details of how you manage biofouling organisms in your organic plan.

**AB i. Cultivation**

1. You may use long-lines, rafts, bottom culture, net bags, cages, trays, lantern nets, bouchot poles and other containment systems.
2. You may only cultivate bivalves on the sea bed where it will not cause significant environmental impact at the collection or growing sites.
3. You must provide evidence of minimal environmental impact through a survey and report on the site and surrounding area to us or the national control authority. The report must be added as a separate chapter to your sustainability management plan.

*(EC) 889/2008 Art. 25q*

**Guidance**

Your organic plan, which will include a sustainability management plan (please see standard OP e.) also needs to include a survey and report on the site and surrounding area demonstrating how you minimise environmental impact.

**AB j. Specific cultivation rules for mussels**

1. For mussel cultivation on rafts the number of drop-ropes must not exceed 1/m<sup>2</sup> of surface area. The maximum drop-rope length must not exceed 20 metres.
2. You must not thin-out drop-ropes during the production cycle, however you may sub-divide drop-ropes without increasing stocking density at the outset.

*(EC) 889/2008 Annex XIIIa (8)*

**Guidance**

You can detail the process you use for thinning out drop ropes in your organic plan.

**AB k. Specific cultivation rules for oysters**

You must meet the standard for mussel cultivation above. Additionally:

1. If you use cultivation in bags on trestles these must be set out to avoid the formation of a total barrier along the shoreline.
2. You must position the oysters carefully on the beds in relation to tidal flow, in order to optimise production.

*(EC) 889/2008 Art. 25r*

**AB l. Conversion and fallowing for bivalve mollusc production**

You do not have to fallow sites for bivalve mollusc production.

*(EC) 889/2008 Art. 25s 3 (b)*

**Guidance**

Please refer to standard CP a. for conversion periods for bivalve molluscs.

## GS: General standards

### GS a. Scope

The standards in the following chapters relate to general requirements for all **organic licensees**. **As part of the Soil Association's standards review, they are under revision** and the new general standards are due to be published in 2017. In the meantime the standards will be applied as written in this chapter. These are the current Soil Association standards.

### GS b. Soil Association Certification Limited

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

### GS c. How we work

1. 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:

- a. an annual certificate of registration
  - b. a trading schedule, and
  - c. a licence to use our symbol.
2. We license every stage, from production on the farm, through processing, to distribution to the consumer.

### GS d. The Soil Association symbol

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).

### GS e. Food production

Food production includes:

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

### GS f. Non-food production

Non-food production includes:

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

## US: Using the Soil Association symbol

### US a. Registration

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



### US b. Use of the symbol

1. 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. You may use the symbol on company stationery, promotional literature and websites if we certify a range of your products, providing it is not misleading to the consumer as to which products the symbol applies.
3. 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.

### Guidance

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).

### US c. Exceptions for brands

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

### Guidance

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'

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.

## SL: What the symbol should look like

### SL a. How the symbol must appear

1. You must reproduce the symbol from original artwork. Please contact your certification officer for a copy of the symbol.
2. The symbol must appear:
  - a. complete and upright
  - b. in proportion to the product description
  - c. at least 10mm in diameter (example 'A')
  - d. in black or white (examples 'B' and 'C')
  - e. clearly visible
  - f. clear and legible over the whole of a background, for example if used over a photograph (example 'D'), and
  - g. no less prominent than the EU logo.
3. 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.



### Guidance

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).

### SL b. How the symbol must not appear

1. The symbol must **not** appear:
  - a. against a background that affects the legibility of the symbol (example 'E')
  - b. incomplete
  - c. at an angle
  - d. within an extra circle either of an outline or solid colour (example 'F')
  - e. in more than one colour (example 'G'), or
  - f. with a different font or typeface (example 'H').

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



2. 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).
3. **A version of the 'Soil Association organic' symbol is available in Welsh.**



### OL: The EU organic logo

#### OL a. Displaying the EU organic logo

1. You must display the EU organic logo on your labels of packaged organic products.
2. 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.**

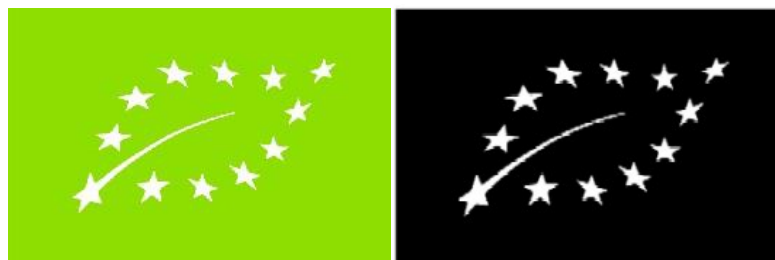


**OL b. Certifier code**

1. Your labels of packaged organic products that are placed on the market must include the EU organic logo.
2. Your certifier code must be placed in the same visual field as the logo.
3. The place of farming should be placed immediately below the certifier code.
4. The text should align with the left edge of the EU organic logo. Full guidance is available on the EU website [here](#)
5. You must also meet standards 3.5.8 and 3.5.9 (for producers), standards 40.10.9 to 40.10.14 (for processors).

**OL c. How the EU logo must appear**

1. The EU organic logo is published for use in green as shown.
2. The reference for single colour printing is Pantone 376, or if you print using four colour process, 50% cyan, 100% yellow.
3. Where colour is not possible you may use black and white.
4. Full details on how to use the EU organic logo are online [here](#).
- 5.

**OL d. Size of the EU organic logo (Revised 2016)**

The EU organic logo must:

- a. appear at least 9mm high and 13.5mm wide, or
- b. appear 6mm high for very small packages, and
- c. have a proportional height to width ratio of 1:1.5

The EU organic logo must **not** be used on in-conversion produce.

**OL e. Location of the EU organic logo**

The EU organic logo may appear:

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

## AP: Approved product scheme

### AP a. The approved product symbol

1. 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.
2. You may **not** use the Soil Association organic symbol on these products.
3. Please ask us if you would like further information on this scheme.



## IN: Inspection

### IN a. Your inspection

1. Our Inspectors check your operation to make sure that it meets our standards. The Inspector will give you an inspection report.
2. 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.
3. We may impose sanctions depending on the severity of the weakness. We grade these as:
  - a. minor non-compliance
  - b. major non-compliance
  - c. critical non-compliance, or
  - d. manifest infringement.
4. We may also ask for extra information to complete the approval process.

### IN b. After inspection

1. 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.
2. When we have received your completed form and agreed that the information you have given is satisfactory we will approve the action summary form.
3. We will then issue your licence if you are an applicant or continue it if you are a licensee.
4. 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.

### IN c. Additional inspections

1. We may do extra inspections throughout the year if:
  - a. you wish to add a new enterprise to your licence
  - b. you move to new premises
  - c. we receive a complaint regarding your business
  - d. you are selected as part of our spot inspection programme
  - e. we need to inspect again to make sure you have corrected non-compliances, or
  - f. our risk assessment of your operations suggests the need for this.
2. These may be announced or unannounced.
3. We may charge you for these inspections.
4. UKAS or Defra inspectors may accompany our inspectors.
5. Defra may also inspect you as part of their surveillance of our inspection procedures.

### IN d. Group licences

If you are an international group licensee you must comply with section 8.3 of IFOAM 'Norms for Organic Production and Processing'.

#### Guidance

You can find the IFOAM guide online [here](#).

## CN: Certification

### CN a. Certification requirements

1. You must have available the current Soil Association standards relevant to your organic enterprises.
2. You must comply with all relevant standards for each enterprise or product shown on your trading schedule.
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.
4. You may sell, or process for other companies to sell, only those products listed on your valid trading schedule.

### CN b. Certificate of registration

1. 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. **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.

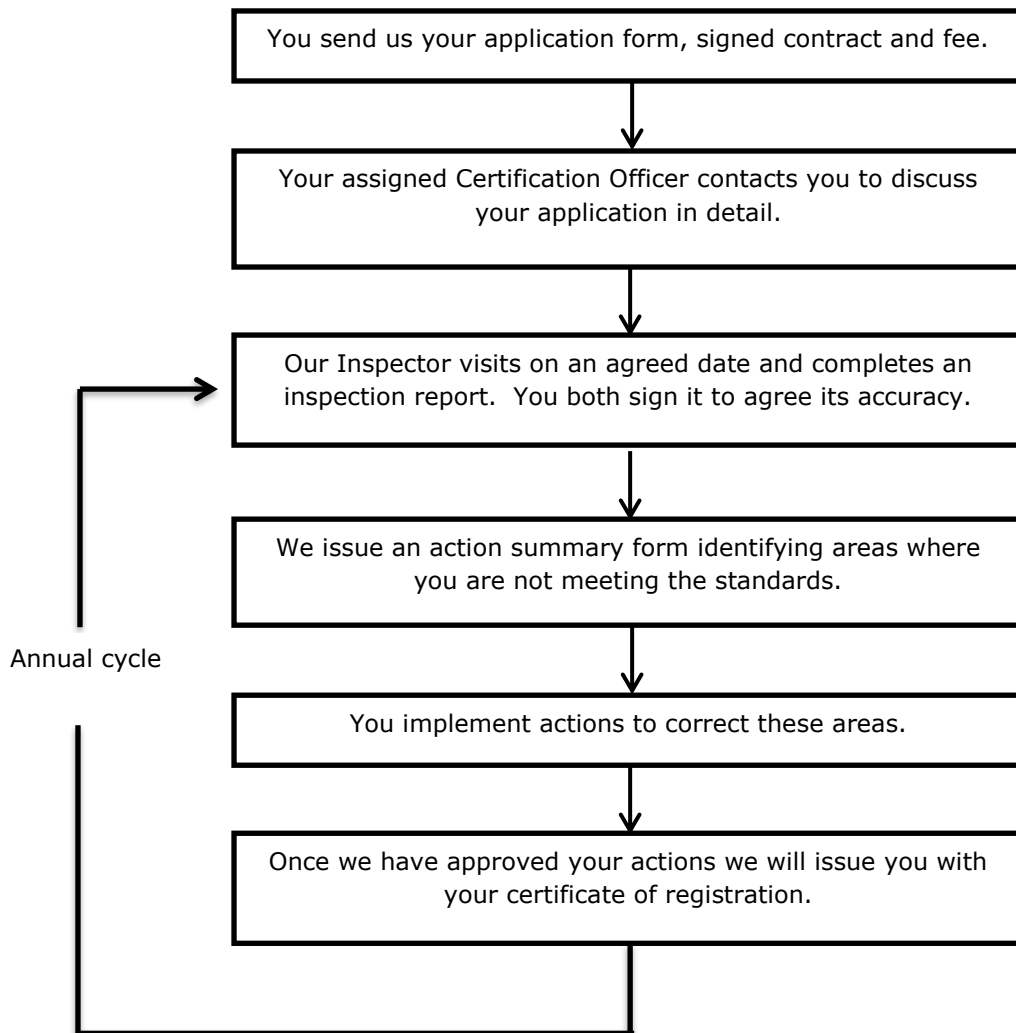
### CN c. Certification fees

1. 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. If you are a producer we calculate your fee each year primarily based on the area of your organically managed land.
3. 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.

### CN d. Complaints

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.

CN e. Inspection and certification process



## EP: Employment

### EP a. Forced and child labour

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

### EP b. Legal requirements

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

### EP c. Worker policy

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.

## OS: Other statutory requirements

### OS a. Cross compliance

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.

### OS b. Operational statutory requirements

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

- a. premises
- b. equipment
- c. staff facilities
- d. general hygiene, and
- e. protection of food from contamination or deterioration.

### OS c. Product statutory requirements

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

- a. grade
- b. composition
- c. quality
- d. quantity, and
- e. product descriptions.

## RK: Records you need to keep

### RK a. Scope

1. This section tells you what records you need to keep of your farm operations.
2. If you are also processing your own or brought-in agricultural products you must also meet record keeping requirements in section 40.6.
3. We have a range of record keeping forms available to help you. Please let us know if you would like any of these forms.

### RK b. General

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.

### RK c. Physical and financial operations

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.

### RK d. Record keeping

You must keep records for all animals brought onto your holding of the following:

1. the origin;
2. date of arrival; and
3. conversion period (if relevant)

For all animals which leave your holding you must record:

1. the number of batches;
2. the age;
3. weight; and
4. destination of animals.

*(EC) 889/2008 Art. 79b (a & b)*

### Guidance

Include these records in your organic plan.

### RK e. Inputs and outputs

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.

### RK f. Failure to keep records

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.

**RK g. Keeping records for five years**

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

**RK h. Accounting records**

Your accounting records must include:

- a. sales and purchase invoices
- b. delivery notes, and
- c. VAT accounts.

**RK i. Complaints register**

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

- a. all complaints you make and receive
- b. any response to the complaint and the action you take, and
- c. complaints you make to others and the action they take.

**RK j. Responding to complaints**

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

**RK k. Input records**

You must record:

- a. where you get them from
- b. what they are
- c. how much you bring in
- d. where and when you use them, and
- e. how much you use.

**RK l. Output records**

You must record:

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

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

**RK m. Stock level records**

You must record:

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



**RK n. Feed records**

When you bring feeds in you must record:

- a. purchase date
- b. type and source of feed
- c. percentage of each ingredient
- d. quantity
- e. organic status, such as organic, in-conversion or non-organic, and GMO status.

Note -you should keep a copy of feed labels.

**RK o. On-farm packing or processing records**

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.

**RK p. Selling direct or third party processing and packing**

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

- a. you sell your own produce (fruit, vegetables or eggs) direct to the consumer, or
- b. 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.

**LB: Labelling****LB a. Applying the labelling standards**

You must comply with these labelling standards for:

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

**LB b. General labelling**

Your labels must:

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

**LB c. Delivery notes and invoices**

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

**LB d. Company name that includes the word 'organic'**

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

**LB e. Approving products**

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

**LB f. Printing artwork**

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

**LB g. Producing organic and non-organic lines**

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.

**LB h. Certifier code**

1. 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.
2. 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'**.
3. 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)

**LB i. Labels of non-food products**

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

**LB j. Scope**

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

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

**LB k. Approving your artwork**

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

**LB l. Labelling in-conversion products**

1. **To label your product as 'in-conversion', the product must:**
  - a. contain only one agricultural ingredient, which must be of plant origin, either processed or unprocessed, and
  - b. have been grown on land that has gone through at least a 12 month conversion period before the crop was harvested.
2. The label must:
  - a. **not** mislead the consumer that the product is organic
  - b. **not** include the Soil Association symbol, and
  - c. **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'.**
  - d. Include our certifier code 'GB-ORG-05'

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

**LB m. Labelling a bulk product**

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

**LB n. Labelling products for further processing, packing or re-labelling**

1. If you send an organic product to another company, including retailers, wholesalers and other licensees for further processing, packing or re-labelling then you must label it:
  - a. so that the recipient can easily identify the product and status, the seller or owner, their certification code, traceability code and % organic (if less than 95%).
  - b. **with the words 'Soil Association Organic' or the Soil Association symbol.**

**LB o. Documentation for bulk transport**

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.

**LB p. Dispatch documentation**

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.

## GN: Genetic engineering and nanotechnology

### GN a. Genetically modified organisms

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.
2. You must produce organic products without using GMOs or their derivatives.
3. Organic products must be free of contamination from GMOs or their derivatives.

### GN b. GMO declaration from suppliers of non-organic

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.

### GN c. Non-organic inputs

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

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

### GN d. Genetic testing

1. 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.
2. We will only use analysis when the risks justify it and to support your documentation and audit trail.
3. Analysis must be by the PCR method at 0.1% limit of detection.

### GN e. Nanoparticles

You must not use ingredients containing manufactured nanoparticles, where:

- a. the mean particle size is 200nm or smaller, and
- b. 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.

## PK: Packaging

### PK a. Scope

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

### PK b. Packaging definition

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

- a. containing
- b. protecting
- c. preserving
- d. handling
- e. storage
- f. delivery
- g. labeling
- h. marketing, and
- i. presentation of your products.

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

### PK c. Packaging legislation

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

### PK d. Ensuring packaging is fit for use

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

### PK e. Storing packaging

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

### PK f. Minimising environmental impact

1. To minimise the direct and indirect environmental impacts of your packaging during its life cycle, you must:
  - a. minimise the amount of material used
  - b. maximise the amount of material that can be reused or recycled, and
  - c. use materials with recycled content where possible.
2. 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.
3. You must review your packaging 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.

### PK g. Bleached paper or cardboard

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).

**PK h. Prohibited packaging materials**

1. You must not use these materials in your packaging:
  - a. 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)
  - b. coatings, dyes or inks that contain phthalates if they will be in direct contact with foodstuffs  
polyvinyl chloride (PVC)
2. You must be able to prove to us that you have not used these materials, for example by having written confirmation from your supplier.

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.

**PK i. Reusing packaging**

For packaging that you reuse, you must:

- a. make sure it is in good repair, clean and free of contamination, and
- b. if previously used for non-organic products, clean it so that no residues remain.

**PK j. Compostable or biodegradable primary packaging**

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

- a. ensure that it conforms with the European standard for compostable packaging (EN13432), and
- b. 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 GN a.

**PK k. Environmental information, claims, and symbols**

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**

**PK l. Complying with these standards**

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

## Annex I – fertilisers and nutrients

The following substances can only be used for fish in inland waters as described in standard SD h.

Name - Compound products or products containing only materials listed hereunder	Description, compositional requirements, conditions for use
Mushroom culture wastes	
Composted or fermented mixture of vegetable matter	
Products and by-products of plant origin for fertilisers	
Seaweeds and seaweed products	Examples: oilseed cake meal, cocoa husks, malt culms
Sawdust and wood chips	As far as directly obtained by: (i) physical processes including dehydration, freezing and grinding (ii) extraction with water or aqueous acid and/or alkaline solution (iii) fermentation
Composted bark	Wood not chemically treated after felling
Wood ash	Wood not chemically treated after felling
Soft ground rock phosphate	From wood not chemically treated after felling
Aluminium-calcium phosphate	Product as specified in point 7 of Annex IA.2. to Regulation (EC) No 2003/2003 of the European Parliament and of the Council (1) relating to fertilisers, 7 Cadmium content less than or equal to 90 mg/kg of P <sub>2</sub> O <sub>5</sub>
Basic slag	Product as specified in point 6 of Annex IA.2. of Regulation 2003/2003, Cadmium content less than or equal to 90 mg/kg of P <sub>2</sub> O <sub>5</sub> Use limited to basic soils (pH > 7,5 )
Crude potassium salt or kainit	Products as specified in point 1 of Annex IA.2. of Regulation 2003/2003
Potassium sulphate, possibly containing magnesium salt	Products as specified in point 1 of Annex IA.3. of Regulation 2003/2003
Stillage and stillage extract	Product obtained from crude potassium salt by a physical extraction process, containing possibly also magnesium salts
Calcium carbonate (chalk, ground limestone, phosphate chalk)	Ammonium stillage excluded
Magnesium and calcium carbonate	Only of natural origin e.g. magnesian chalk, ground magnesium, limestone
Magnesium sulphate (kieserite)	Only of natural origin
Calcium chloride solution	Only of natural origin
Industrial lime from sugar production	Products as specified in point 1 of Annex ID. of Regulation

	2003/2003 Only of natural origin
Industrial lime from vacuum salt production	By-product of sugar production from sugar beet
Elemental sulphur	By-product of the vacuum salt production from brine found in mountains
Trace elements	Products as specified in Annex ID.3 of Regulation 2003/2003 Only of natural origin
Sodium chloride	Inorganic micronutrients listed in part E of Annex I to Regulation 2003/2003
Stone meal and clays	Only mined salt
Leonardite (Raw organic sediment rich in humic acids)	Only if obtained as a by-product of mining activities
Organic rich sediment from fresh water bodies formed under exclusion of oxygen (e.g. sapropel)	Only organic sediments that are by-products of fresh water body management or extracted from former freshwater areas When applicable, extraction should be done in a way to cause minimal impact on the aquatic system Only sediments derived from sources free from contaminations of pesticides, persistent organic pollutants and petrol like substances Maximum concentrations in mg/kg of dry matter: cadmium: 0,7; copper: 70; nickel: 25; lead: 45; zinc: 200; mercury: 0,4; chromium (total): 70; chromium (VI): not detectable

(<sup>1</sup>) OJ L 304, 21.11.2003, p. 1.

(<sup>2</sup>) Regulation (EC) No 1069/2009 of the European Parliament and of the Council of 21 October 2009 laying down health rules as regards animal by-products and derived products not intended for human consumption and repealing Regulation (EC) No 1774/2002 (Animal by-products Regulation) (OJ L 300, 14.11.2009, p. 1).

(<sup>3</sup>) Commission Regulation (EU) No 142/2011 of 25 February 2011 implementing Regulation (EC) No 1069/2009 of the European Parliament and of the Council laying down health rules as regards animal by-products and derived products not intended for human consumption and implementing Council Directive 97/78/EC as regards certain samples and items exempt from veterinary checks at the border under that Directive (OJ L 54, 26.2.2011, p. 1).

(<sup>4</sup>) Council Regulation (EC) No 2371/2002 of 20 December 2002 on the conservation and sustainable exploitation of fisheries resources under the Common Fisheries Policy (OJ L 358, 31.12.2002, p. 59).