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COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 29.6.2009

Draft rev4

COMMISSION REGULATION (EC) No .../..

of [...]

amending Regulation (EC) No 889/2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007, as regards laying down detailed rules on organic aquaculture animal and seaweed production

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COMMISSION REGULATION (EC) No .../..

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amending Regulation (EC) No 889/2008 laying down detailed rules for the implementation of Council Regulation (EC) No 834/2007, as regards laying down detailed rules on organic aquaculture animal and seaweed production

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91¹, and in particular Articles 11, 13(3), 15(2), 16(1) and (3)(a) and (c), 17(2), 18(5), the second subparagraph of Article 19(3), Articles 22(1), 28(6) and 38(a), (b), (c), and Article 40 thereof,

Whereas:

- (1) Regulation (EC) No 834/2007 and in particular Title III thereof lays down basic requirements with regard to aquaculture animal and seaweed production. Detailed rules for the implementation of these requirements should be laid down by amending Commission Regulation (EC) No 889/2008², which lays down detailed rules for the implementation of Regulation (EC) No 834/2007.
- (2) The Communication from the Commission to the Council and the European Parliament on a strategy for the sustainable development of European aquaculture³ sets out a vision for the development of this sector over a ten year period to give a stable industry in rural and coastal areas providing alternatives to the fishing industry in terms of products and employment. The Communication pointed to the potential for organic aquaculture production and the requirement for norms and criteria to be developed.
- (3) To ensure common understanding the definitions as laid down in Article 2 of Regulation (EC) No 889/2008 should be supplemented and corrected in order to avoid ambiguities and to guarantee the uniform application of the organic aquaculture animal and seaweed production rules.
- (4) The aquatic growing area for organic seaweed and aquaculture animals is of utmost importance for growing both safe and high quality products with minimal impact on

¹ OJ L 189, 20.7.2007, p. 1.

² OJ L 250, 18.9.2008, p.1.

³ COM(2002) 511 of 19.9.2002.

the aquatic environment. Community legislation on quality of waters and contaminants in food, including Directive (EC) 2000/60 of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy⁴, Directive (EC) 2008/56 of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive)⁵, Commission Regulation (EC) 1881/2006 of 19 December 2006 setting maximum levels for certain contaminants in foodstuffs⁶, and Regulations (EC) No 852/2004⁷, (EC) No 853/2004⁸ and (EC) No 854/2004⁹ provide for environmental objectives for water and ensures high food quality. It is therefore appropriate to draw up a sustainable management plan for seaweed and aquaculture production specifying measures, such as waste reduction.

- (5) Council Directive 85/337/EEC of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment¹⁰, Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora¹¹ and Council Directive 79/403/EEC of 2 April 1979 on the conservation of wild birds¹² should ensure proper interaction with the environment while taking into account the impact of these activities on the environmental objectives for water set out in application of Directives (EC) 2000/60 and 2008/56. Provisions should be made for drawing up an environmental assessment covering best adaptation to the surrounding environment and mitigation of possible negative effects. There should be consideration that such assessments should ensure that organic production of seaweed and aquaculture animals which is a relative new activity in comparison with organic agriculture is not only environmentally acceptable, but relative to other options, most in accord with broad public interests and both environmentally suitable and sustainable.
- (6) The specific soluble medium of water requires organic and non-organic aquaculture production units to be adequately separated; appropriate separation measures should be laid down. Given the variability of situations regarding both freshwater and marine environments throughout the Community it is preferable that adequate separation distances are set at Member States level, as Member States are best equipped to deal with separation given the heterogeneous nature of such aquatic environments.
- (7) The cultivation of seaweed can have a beneficial effect in some respects such as nutrient removal and can facilitate polyculture. Care needs to be taken not to over-harvest wild seaweed beds to permit their regeneration and to ensure that production does not cause a significant impact on the state of the aquatic environment.

⁴ OJ L 327, 22.7.2000, p.1.

⁵ OJ L 164, 25.6.2008, p. 19.

⁶ OJ L 364, 20.12.2006, p. 5.

⁷ OJ L 226, 25.06.2004, p. 3.

⁸ OJ L 226, 25.06.2004, p. 22.

⁹ OJ L 226, 25.06.2004, p. 83.

¹⁰ OJ L 175, 5.7.1985, p. 40.

¹¹ OJ L 206, 22.7.1992 p. 7.

¹² OJ L 103, 25.4.1979, p. 1.

- (8) Member States faces increasing shortages in the supply of organic protein crops. At the same time the imports of organic protein feed have been insufficient to meet requirements. The total cultivation area of organic protein crops is not large enough to meet the need for organic protein; therefore protein feed derived from parcels in their first year of conversion should be allowed to be fed under certain conditions.
- (9) Given the early stage of organic aquaculture animal production organic broodstock is not available in sufficient quantities. Provision should be made for the introduction of non-organic broodstock and juveniles under certain conditions.
- (10) Organic aquaculture animal production should ensure that species-specific needs of animals are met. In this regard husbandry practices, management systems and containment systems should satisfy the welfare needs of animals. Provisions on the appropriate construction of cages and net pens at sea as well as for rearing systems on land should be made. To minimise pests and parasites and for the reason of high animal welfare and health, maximum stocking densities should be laid down. Taking account of the broad variation of species with particular needs, specific provisions should be laid down.
- (11) Recent technical development has led to increasing use of closed recirculation systems for aquaculture production, such systems depend on external input and high energy but permit reduction of waste discharges and prevention of escapes. Due to the principle that organic production should be as close as possible to nature the use of such systems should not be allowed for organic production until further knowledge is available. Exceptional use should be possible only for the specific production situation of hatcheries and nurseries.
- (12) The overall principles for organic production, as provided for in Article 4 and 5 of Regulation (EC) No 834/2007, shall be based on an appropriate design and management of biological processes, based on ecological systems using natural resources which are internal to the system by methods that, in particular practice aquaculture complying with the principle of sustainable exploitation of fisheries. They provide also for the principle that the biodiversity of natural aquatic ecosystems has to be maintained in aquaculture production. These principles are otherwise based on risk assessment, and the use of precautionary and preventive measures, when appropriate. To this end, it should be clarified that artificial induction of the reproduction of aquaculture animals through hormones and hormones derivatives is incompatible with the concept of organic production and consumer perception of organic aquaculture products and that such substances should therefore not be used in organic aquaculture.
- (13) Feed for aquaculture animals should meet the nutritional needs and is also required to meet the health requirement that feed coming from a species is not fed to the same species as laid down in Regulation (EC) No 999/2001 of the European Parliament and of the Council of 22 May 2001 laying down rules for the prevention, control and eradication of certain transmissible spongiform encephalopathies¹³. It is therefore appropriate to lay down specific provisions for carnivorous and non-carnivorous aquaculture animals.

¹³ OJ L 147, 31.5.2001, p. 1.

- (14) The raw materials for feeding organic carnivorous fish and crustaceans should preferably be derived from sustainable exploitation of fisheries as referred to in Article 5(o) of Regulation 834/2007 and defined in Article 3(e) of Council Regulation (EC) No 2371/2002 of 20 December 2002 on the conservation and sustainable exploitation of fisheries resources under the Common Fisheries Policy¹⁴ or organic feed derived from organic aquaculture sources. Given the early stage of organic aquaculture and sustainable fisheries shortages of organic feed or feed from sustainable fisheries may occur, provisions should be made for the use of non-organic feed and be based on Regulation (EC) No 1774/2002¹⁵, which sets the health rules for material of fish origin which may be used in aquaculture and provides for a ban on the feeding of certain materials derived from farmed fish to farmed fish of the same species.
- (15) For the purpose of organic aquaculture animal and seaweed production, the use of certain non-organic feed materials, feed additives and processing aids is allowed under well-defined conditions. New materials in question should be authorised according to Article 16(1) of Regulation (EC) No 834/2007. Based on the recommendation of an ad-hoc expert group¹⁶ on "Fish feed and cleaning materials in organic aquaculture" which concluded that such substances already listed in Annex V and Annex VI to Regulation (EC) No 889/2008 and authorised for organic livestock production should be allowed also for organic aquaculture and concluding that certain substances are essential for particular fish species, such substances should be added to Annex VI to that Regulation.
- (16) The cultivation of filter feeding bivalve molluscs can have a beneficial effect on coastal water quality via the removal of nutrients and their use can also facilitate polyculture. Specific rules for molluscs should be laid down by taking into account that supplementary feeding is not required and that the environmental impact could be consequently lower than other branches of aquaculture in this respect;
- (17) Animal health management should be primarily based on the prevention of disease. The measures provided for in this Regulation should be without prejudice to Council Directive 2006/88/EC of 24 October 2006 on animal health requirements for aquatic animals and products thereof, and on the prevention and control of certain diseases in aquaculture animals¹⁷ in case of veterinary treatment. Certain substances for cleaning, antifouling treatment and disinfection of production equipment and facilities should be allowed under defined conditions. In the presence of live animals the use of disinfection substances requires particular care and measures to ensure that the application is not harmful. Such substances should be authorised according to Article 16(1) of Regulation (EC) No 834/2007. Based on the recommendation of an ad-hoc expert group such substances should be listed in the Annex.
- (18) Specific rules for veterinary treatment should be laid down ranking the different types of treatments and limiting the frequency of use in the case of allopathic treatments.

¹⁴ OJ L 358, 31.12.2002, p. 59.

¹⁵ OJ L 273, 10.10.2002, p.1.

¹⁶ Recommendations from the ad-hoc expert group on "Fish feed and cleaning materials in organic seaweed and aquaculture production" , 20.11.2008, www.organic-farming.europa.eu

¹⁷ OJ L 328, 24.11.2006, p 14.

- (19) Precaution should be taken during the handling and transport of live fish so as to meet their physiological needs.
- (20) The conversion to the organic production method requires the adaptation of all means to the organic method for a given period. Depending on the previous production systems specific conversion periods should be laid down.
- (21) It appeared that certain Annexes of Regulation (EC) No 889/2007 contain mistakes; Provisions to correct these mistakes should be taken.
- (22) Provisions for specific control requirements which take account of the specificities of aquaculture should be laid down.
- (23) To facilitate the conversion of holdings already producing organically under national or private standards to the new Community rules certain transitional measures should be laid down.
- (24) Organic aquaculture is a relatively new field of organic production compared to organic agriculture, where long experience exists at the farm level. Given consumers' growing interest in organic aquaculture products further growth in the conversion of aquaculture units to organic production is likely. This will soon lead to increased experience and technical knowledge. Moreover, planned research is expected to result in new knowledge in particular on containment systems, the need of non-organic feed ingredients, or stocking densities for certain species. New knowledge and technical development, which would lead to an improvement in organic aquaculture, should be reflected in the production rules. Therefore provision should be made to review the present legislation with a view to modifying it where appropriate.
- (25) Regulation (EC) No 889/2008 should therefore be amended accordingly.
- (26) The measures provided for in this Regulation are in accordance with the opinion of the regulatory Committee on organic production,

HAS ADOPTED THIS REGULATION:

Article 1

Regulation (EC) No 889/2008 is amended as follows:

- (1) In Article 1, paragraph 2 is replaced by the following:

"2. This Regulation shall not apply to:

- a) livestock species other than those referred to in Article 7; and
- b) to aquaculture animals other than those referred to in Article 25a.

However, Title II, Title III and Title IV shall apply *mutatis mutandis* to such products until detailed production rules for those products are laid down on the basis of Regulation (EC) No 834/2007."

(2) Article 2 is amended as follows:

(a) point (f) is replaced by the following:

"(f) 'production unit' means all assets to be used for a production sector such as production premises, land parcels, pasturages, open air areas, livestock buildings, fish ponds, containment systems for seaweed or aquaculture animals, shore or seabed concessions, the premises for the storage of crops, crop products, seaweed products, animal products, raw materials and any other input relevant for this specific production sector;"

(b) after point (i) the following points are added:

“(j) 'closed recirculation aquaculture facility' means a facility where aquaculture takes place within an enclosed environment on land or on a vessel involving the recirculation of water, and depending on permanent external energy input to stabilize the environment for the aquaculture animals;

(k) 'energy from renewable sources' means renewable non-fossil energy sources: wind, solar, geothermal, wave, tidal, hydropower, landfill gas, sewage treatment plant gas and biogases;

(l) 'hatchery' means a place of breeding, hatching and rearing through the early life stages of aquaculture animals, finfish and shellfish in particular;

(m) 'nursery' means a place where an intermediate farming system, between the hatchery and grow-out stages is applied. The nursery stage is completed within the first third of the production cycle with the exception of species undergoing a smoltification process;

(n) 'pollution' in the framework of aquaculture and seaweed production means the direct or indirect introduction into the aquatic environment of substances or energy as defined in Directive 2008/56/EC and in Directive 2000/60/EC, in the waters where they respectively apply;

(o) 'polyculture' in the framework of aquaculture and seaweed production, means the rearing of two or more species usually from different trophic levels in the same culture unit;

(p) 'production cycle' in the framework of aquaculture and seaweed production, means the lifespan of an aquaculture animal or seaweed from the earliest life stage to harvesting;

(q) 'locally grown species' in the framework of aquaculture and seaweed production, means those which are neither alien nor locally absent species under Council Regulation (EC) No 708/2007; Those species listed in Annex IV of Regulation (EC) No 708/2007 may be considered as locally grown species.

- (r) 'stocking density' in the framework of aquaculture, means the live weight of animals per cubic metre of water at any time during the grow-out phase and in the case of flatfish and shrimp the weight per square metre of surface."

- (3) In Title II, the following Chapter 1a is inserted:

“CHAPTER 1a

Seaweed production

Article 6a

Scope

This Chapter lays down detailed production rules for the collection and farming of seaweed. It applies *mutatis mutandis* to the production of all multi-cellular marine algae or phytoplankton and micro-algae for further use as feed for aquaculture animals.

Article 6b

Suitability of aquatic medium and sustainable management plan

1. Operations shall be situated in locations that are not subject to contamination by products or substances not authorised for organic production, or pollutants that would compromise the organic nature of the products.
2. Organic and non-organic production units shall be separated adequately. Such separation measures shall be based on the natural situation, separate water distribution systems, distances, the tidal flow, the upstream and the downstream location of the organic production unit. Member State authorities may designate locations or areas which they consider to be unsuitable for organic aquaculture or seaweed harvesting and may also set up minimum separation distances between organic and non-organic production units. Where minimum separation distances are set Member States shall provide this information to operators, other Member States and the Commission.
3. An environmental assessment proportionate to the production unit shall be required for all new operations applying for organic production and producing more than 20 tonnes of aquaculture products per year to ascertain the conditions of the production unit and its immediate environment and likely effects of its operation. The operator shall provide the environmental assessment to the control body or control authority. The content of the environmental assessment shall be based on Annex IV to Council Directive 85/337/EEC*. If the unit has already been subject to an equivalent assessment, then its use shall be permitted for this purpose.

4. The operator shall provide a sustainable management plan proportionate to the production unit for aquaculture and seaweed harvesting.

The plan shall be updated annually and shall detail the environmental effects of the operation, the environmental monitoring to be undertaken, and list measures to be taken to minimise negative impacts on the surrounding aquatic and terrestrial environments, including, where applicable, nutrient discharge into the environment per production cycle or per annum. The plan shall record the surveillance and repair of technical equipment.

5. Aquaculture and seaweed business operators shall by preference use renewable energy sources and re-cycle materials and shall draw up as part of the sustainable management plan a waste reduction schedule to be put in place at the commencement of operations. Where possible, the use of residual heat shall be limited to energy from renewable sources.
6. For seaweed harvesting a once-off biomass estimate shall be undertaken at the outset.

Article 6c

Sustainable harvesting of wild seaweed

1. Documentary accounts shall be maintained in the unit or premises and shall enable the operator to identify and the control authority or control body to verify that the harvesters have supplied only wild seaweed produced in accordance with Regulation (EC) No 834/2007.
2. Harvesting shall be carried out in such a way that the amounts harvested do not cause a significant impact on the state of the aquatic environment. Measures shall be taken to ensure that seaweed can regenerate, such as harvest technique, minimum sizes, ages, reproductive cycles or size of remaining seaweed.
3. If seaweed is harvested from a shared or common harvest area, documentary evidence shall be available that the total harvest complies with this Regulation.
4. With respect to Article 73b (2) (b) and c), these records must provide evidence of sustainable management and of no long-term impact on the harvesting areas.

Article 6d

Seaweed Cultivation

1. Seaweed culture at sea shall only utilise nutrients naturally occurring in the environment, or from organic aquaculture animal production, preferably located nearby as part of a polyculture system.
2. In facilities on land where external nutrient sources are used the nutrient levels in the effluent water shall be verifiably the same, or lower, than the inflowing

water. Only nutrients of plant or mineral origin and as listed in Annex I may be used.

3. Culture density or operational intensity shall be recorded and shall maintain the integrity of the aquatic environment by ensuring that the maximum quantity of seaweed which can be supported without negative effects on the environment is not exceeded
4. Ropes and other equipment used for growing seaweed shall be re-used or recycled where possible.

Article 6e

Antifouling measures and cleaning of production equipment and facilities

1. Bio-fouling organisms shall be removed only by physical means or by hand and where appropriate returned to the sea at a distance from the farm.
2. Cleaning of equipment and facilities shall be carried out by physical or mechanical measures. Where this is not satisfactory only substances as listed in Annex VII, Section 2 may be used.

* OJ L 175, 5.7.1985, p. 40"

- (4) In Article 21, paragraph 2 is replaced by the following:

"Up to 20% of the total average amount of feedingstuffs fed to livestock may originate from the grazing or harvesting of permanent pastures, perennial forage parcels or protein crops, sown under organic management on lands in their first year of conversion, provided that they are part of the holding itself and have not been part of an organic production unit of that holding in the last five years. When both in-conversion feedingstuffs and feedingstuffs from parcels in their first year of conversion are being used, the total combined percentage of such feedingstuffs shall not exceed the maximum percentages fixed in paragraph 1."

- (5) In Title II, the following Chapter 2a is inserted:

“CHAPTER 2a

Aquaculture animal production

SECTION 1

GENERAL RULES

Article 25a

Scope

This Chapter lays down detailed production rules for species of fish, crustaceans, echinoderms and molluscs as covered by Annex XIIIa.

It applies *mutatis mutandis* to zooplankton, micro-crustaceans, rotifers, worms and other aquatic feed animals.

Article 25b

Suitability of aquatic medium and sustainable management plan

1. The provisions of Article 6b(1) to (5) shall apply to this Chapter.
2. Defensive and preventive measures taken against predators under Council Directive 92/43/EEC* and national rules shall be recorded in the sustainable management plan.
3. Verifiable coordination shall take place with the neighbouring operators in drawing up their management plans where applicable.
4. For aquaculture animal production in fishponds, tanks or raceways, farms shall be equipped with either natural-filter beds, settlement ponds, biological filters or mechanical filters to collect waste nutrients or use seaweeds and/or animals (bivalves and algae) which contribute to improving the quality of the effluent. Effluent monitoring shall be carried out at regular intervals where appropriate.

Article 25c

Simultaneous production of organic and non-organic aquaculture animals

1. The competent authority 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 a separate water distribution system exists.

2. In case of grow-out production, the competent authority may permit organic and non-organic aquaculture animal production units on the same holding provided Article 6b(2) of this Regulation is complied with and where different production phases and different handling periods of the aquaculture animals are involved.
3. Operators shall keep documentary evidence of the use of provisions referred to in this Article.

SECTION 2

ORIGIN OF AQUACULTURE ANIMALS

Article 25d

Origin of organic aquaculture animals

1. Locally grown species shall be used and breeding shall aim to give strains which are more adapted to farming conditions, good health and good utilisation of feed resources. Documentary evidence of their origin and treatment shall be provided for the control body or control authority.
2. Species shall be chosen which can be farmed without causing significant damage to wild stocks.

Article 25e

Origin and management of non-organic aquaculture animals

1. For breeding purposes or for improving genetic stock and when organic aquaculture animals are not available, wild caught or non-organic aquaculture animals may be brought into a holding. Such animals shall be kept under organic management for at least three months before they may be used for breeding.
2. For on-growing purposes and when organic aquaculture juvenile animals are not available non-organic aquaculture juveniles may be brought into a holding. At least the latter two thirds of the duration of the production cycle shall be managed under organic management.
3. The maximum percentage of non-organic aquaculture juveniles introduced to the farm shall be: 80% by 31 December 2011, 50% by 31 December 2013 and 0% by 31 December 2015.
4. For on-growing purposes the collection of wild aquaculture juveniles is specifically restricted to the following cases:

- (a) natural influx of fish or crustacean larvae and juveniles when filling ponds, containment systems and enclosures;
- (b) European glass eel, provided that an approved eel management plan is in place for the location and artificial reproduction of eel remains unsolved.

SECTION 3

AQUACULTURE HUSBANDRY PRACTICES

Article 25f

General aquaculture husbandry rules

1. The husbandry environment of the aquaculture animals shall be designed in such a way that, in accordance with their species specific needs, the aquaculture animals shall:
 - (a) have sufficient space for their wellbeing;
 - (b) be kept in water of good quality with sufficient oxygen levels, and
 - (c) be kept in temperature and light conditions in accordance with the requirements of the species and having regard to the geographic location;
 - (d) in the case of freshwater fish the bottom type shall be as close as possible to natural conditions;
 - (e) in the case of carp the bottom shall be natural earth.
2. Stocking density is set out in Annex XIIIa by species or group of species. In considering the effects of stocking density on the welfare of farmed fish, the condition of the fish (such as fin damage, other injuries, growth rate, behaviour expressed and overall health) and the water quality shall be monitored.
3. The design and construction of aquatic containment systems shall provide flow rates and physiochemical parameters that safeguard the animals' health and welfare and provide for their behavioural needs.
4. Containment systems shall be designed, located and operated to minimize the risk of escape incidents.
5. If fish or crustaceans escape, appropriate action must be taken to reduce the impact on the local ecosystem, including recapture, where appropriate. Documentary evidence shall be maintained.

Article 25g

Specific rules for aquatic containment systems

1. Closed recirculation aquaculture animal production facilities are prohibited, with the exception of hatcheries and nurseries or for the production of species used for organic feed organisms.
2. Rearing units on land shall meet the following conditions:
 - (a) for flow-through systems it shall be possible to monitor and control the flow rate and water quality of both in-flowing and out-flowing water;
 - (b) at least five percent of the perimeter ("land-water interface") area shall have natural vegetation.
3. Containment systems at sea shall:
 - (a) be located where water flow, depth and water-body exchange rates are adequate to minimize the impact on the seabed and the surrounding water body;
 - (b) shall have suitable cage design, construction and maintenance with regard to their exposure to the operating environment.
4. Artificial heating or cooling of water shall only be permitted in hatcheries and nurseries. Natural borehole water may be used to heat or cool water at all stages of production.

Article 25h

Management of aquaculture animals

1. Handling of aquaculture animals shall be minimised, undertaken with the greatest care and proper equipment and protocols used to avoid stress and physical damage associated with handling procedures. Broodstock shall be handled in a manner to minimize physical damage and stress and under anaesthesia where appropriate. Grading operations shall be kept to a minimum and as required to ensure fish welfare.
2. The following restrictions shall apply to the use of artificial light:
 - (a) for prolonging natural day-length it shall not exceed a maximum that respects the ethological needs, geographical conditions and general health of farmed animals, this maximum shall not exceed 16 hours per day, except for reproductive purposes;
 - (b) Abrupt changes in light intensity shall be avoided at the changeover time by the use of dimmable lights or background lighting.
3. Aeration is permitted to ensure animal welfare and health, under the condition that mechanical aerators are preferably powered by renewable energy sources.

All such use is to be recorded in the aquaculture production record.

4. The use of oxygen is only permitted for uses linked to animal health requirements and critical periods of production or transport, in the following cases:
 - (a) exceptional cases of temperature rise or drop in atmospheric pressure or accidental pollution,
 - (b) occasional stock management procedures such as sampling and sorting,
 - (c) in order to assure the survival of the farm stock.

Documentary evidence shall be maintained.

5. Slaughter techniques shall render fish immediately unconscious and insensible to pain. Differences in harvesting sizes, species, and production sites must be taken into account when considering optimal slaughtering methods.

SECTION 4

BREEDING

Article 25i

Prohibition of hormones

The use of hormones and hormone derivatives is prohibited.

SECTION 5

FEED FOR FISH, CRUSTACEANS AND ECHINODERMES

Article 25j

General rules on feeds

Feeding regimes shall be designed with the following priorities:

- (a) animal health;
- (b) high product quality, including the nutritional composition which shall ensure high quality of the final edible product;
- (c) low environmental impact.

Article 25k

Specific rules on feeds for carnivorous aquaculture animals

1. Feed for carnivorous aquaculture animals shall be sourced with the following priorities:
 - (a) organic feed products of aquaculture origin;
 - (b) fish meal and fish oil from organic aquaculture trimmings;
 - (c) fish meal and fish oil and ingredients of fish origin derived from trimmings of fish already caught for human consumption in sustainable fisheries;
 - (d) organic feed materials of plant origin and of animal origin as listed in Annex V and the restriction laid down therein are complied with.
2. If feed mentioned under paragraph 1 is not available, fishmeal and fish oil from non-organic aquaculture trimmings, or trimmings of fish caught for human consumption may be used for a transitional period until 31 December 2014. Such feed material shall not exceed 30% of the daily ration.
3. The feed ration may comprise a maximum of 60% organic plant products.
4. Astaxanthin derived primarily from organic sources, such as organic crustacean shells may be used in the feed ration for salmon and trout within the limit of their physiological needs. If organic sources are not available natural sources of astaxanthin (such as *Phaffia* yeast) may be used.

Article 25l

Specific rules on feeds for certain aquaculture animals

1. Aquaculture animals as referred to in Annex XIIIa, Section 6, Section 7 and Section 9 shall be fed with feed naturally available in ponds and lakes.
2. Where natural feed resources are not available in sufficient quantities as referred to in paragraph 1, organic feed of plant origin, preferably grown on the farm itself or seaweed may be used. Operators shall keep documentary evidence of the need to use additional feed.
3. Where natural feed is supplemented according to paragraph 2 the feed ration of species as mentioned in section 7 and of siamese catfish (*Pangasius sp.*) as mentioned in section 9 may comprise a maximum of 10% fishmeal or fish oil derived from sustainable fisheries.

Article 25m

Products and substances as referred to in Article 15(1)(d)(iii) of Regulation (EC) No 834/2007

1. Feed materials of animal and mineral origin may be used in organic aquaculture, only if listed in Annex V.
2. Feed additives, certain products used in animal nutrition and processing aids may be used if listed in Annex VI and the restrictions laid down therein are complied with.

SECTION 6

SPECIFIC RULES FOR MOLLUSCS

Article 25n

Growing area

1. Bivalve mollusc farming may be carried out in the same area of water as organic finfish and seaweed farming in a polyculture system to be documented in the sustainable management plan. Bivalve molluscs may also be grown together with gastropod molluscs, such as periwinkles, in polyculture.
2. Organic bivalve mollusc production shall take place within areas delimited by posts, floats or other clear markers and shall, as appropriate, be restrained by net bags, cages or other man made means.
3. Organic shellfish farms shall minimise risks to species of conservation interest. If predator nets are used their design shall not permit diving birds to be harmed.

Article 25o

Sourcing of seed

1. Provided that there is no significant damage to the environment and if permitted by local legislation, wild seed from outside the boundaries of the production unit can be used in the case of bivalve shellfish provided it comes from:
 - (a) settlement beds which are unlikely to survive winter weather or are surplus to requirements, or
 - (b) natural settlement of shellfish seed on collectors.

Records shall be kept of how, where and when wild seed was collected to allow traceability back to the collection area.

However, seed from non-organic bivalve shellfish hatcheries may be introduced to the organic production units with the following maximum percentages: 80% by 31 December 2011, 50% by 31 December 2013 and 0% by 31 December 2015.

2. For the cupped oyster, *Crassostrea gigas*, preference shall be given to stock which is selectively bred to reduce spawning in the wild.

Article 25p

Management

1. Production shall use a stocking density not in excess of that used for non-organic shellfish in the locality. Sorting, thinning and stocking density adjustments shall be made according to the biomass and to ensure animal welfare and high product quality.
2. Biofouling organisms shall be removed by physical means or by hand and where appropriate returned to the sea away from shellfish farms. Shellfish may be treated once during the production cycle with a lime solution to control competing fouling organisms.

Article 25q

Cultivation rules

1. Cultivation on mussel ropes and other methods listed in Annex XIIIa, Section 8 may be eligible for organic production.
2. Bottom cultivation of molluscs is only permitted where no significant environmental impact is caused at the collection and growing sites. The evidence of minimal environmental impact shall be supported by a survey and report on the exploited area to be provided by the operator to the control body or control authority. The report shall be added as a separate chapter to the sustainable management plan.

Article 25r

Specific cultivation rules for oysters

Cultivation in bags on trestles is permitted. These or other structures in which the oysters are contained shall be set out so as to avoid the formation of a total barrier along the shoreline. Stock shall be positioned carefully on the beds in relation to tidal flow to optimise production. Production shall meet the criteria listed in the Annex XIIIa, Section 8.

SECTION 7

DISEASE PREVENTION AND VETERINARY TREATMENT

Article 25s

General rules on disease prevention

1. The animal health management plan in conformity with Article 9 of Directive 2006/88/EC shall detail biosecurity and disease prevention practices including a written agreement for health counselling, proportionate to the production unit, with qualified aquaculture animal health services who shall visit the farm at a frequency of not less than once per year and not less than once every two years in the case of bivalve shellfish.
2. Holding systems, equipment and utensils shall be properly cleaned and disinfected. Only products listed in Annex VII, Sections 2.1 to 2.2 may be used.
3. With regard to fallowing:
 - (a) The competent authority shall determine whether fallowing is necessary and the appropriate duration which shall be applied and documented after each production cycle in open water containment systems at sea. Fallowing is also recommended for other production methods using tanks, fishponds, and cages;
 - (b) it shall not be mandatory for bivalve mollusc cultivation;
 - (c) during fallowing the cage or other structure used for aquaculture animal production is emptied, disinfected and left empty before being used again.
4. Where appropriate, uneaten fish-feed, faeces and dead animals shall be removed promptly to avoid any risk of significant environmental damage as regards water status quality, minimize disease risks, and to avoid attracting insects or rodents.
5. Ultraviolet light and ozone may be used only in hatcheries and nurseries.
6. For biological control of ectoparasites preference shall be given to the use of cleaner fish.

Article 25t

Veterinary treatments

1. When despite preventive measures to ensure animal health, according to Article 15 (1) (f) (i) of Regulation 834/2007, a health problem arises, veterinary treatments may be used in the following order of preference:
 - (a) substances from plants, animals or minerals in a homoeopathic dilution;
 - (b) plants and their extracts not having anaesthetic effects, and
 - (c) substances such as: trace elements, metals, natural immunostimulants or authorised probiotics.
2. The use of allopathic treatments is limited to two courses of treatment per year, with the exception of vaccinations and compulsory eradication schemes. However, in the cases of a production cycle of less than a year a limit of one allopathic treatment applies. If the mentioned limits for allopathic treatments are exceeded the concerned aquaculture animals can not be sold as organic products.
3. The use of parasite treatments, not including compulsory control schemes operated by Member States, shall be limited to twice per year or once per year where the production cycle is less than 18 months.
4. The withdrawal period for allopathic veterinary treatments and parasite treatments according to paragraph 3 including treatments under compulsory control and eradication schemes shall be twice the legal withdrawal period as referred to in Article 11 of Directive 2001/82/EC or in a case in which this period is not specified 48 hours.
5. Whenever veterinary medicinal products are used, such use is to be declared to the control body or the control authority before the animals are marketed as organic. Treated stock shall be clearly identifiable.

* OJ L 206, 22.7.1992 p. 7

** OJ L 103, 25.4.1979, p.1"

- (6) In Chapter 3 of Title II, the following Article 29a is inserted after Article 29:

“Article 29a

Specific provisions for seaweed

1. If the final product is fresh seaweed, flushing of freshly harvested seaweed shall use seawater.

If the final product is dehydrated seaweed, potable water may also be used for flushing. Salt may be used for removal of moisture.
2. The use of direct flames which come in direct contact with the seaweed shall be prohibited for drying. If ropes or other equipment are used in the drying process they shall be free of anti-fouling treatments and cleaning or

disinfection substances except where a product is listed in Annex VII for this use.”

- (7) In Chapter 4 of Title II, the following Article 32a is inserted:

“Article 32a

Transport of live fish

1. Live fish shall be transported in suitable tanks with clean water which meets their physiological needs in terms of temperature and dissolved oxygen.
2. Before transport of organic fish and fish products, tanks shall be thoroughly cleaned, disinfected and rinsed.
3. Precautions shall be taken to reduce stress. During transport, the density shall not reach a level which is detrimental to the species.
4. Documentary evidence shall be maintained for paragraphs 1 to 3.”

- (8) In Article 35, paragraphs 2 and 3 are replaced by the following:

- "2. In case of organic plant, seaweed, livestock and aquaculture animal production units, storage of input products other than those authorised under this Regulation is prohibited in the production unit.
3. The storage of allopathic veterinary medicinal products and antibiotics is permitted on holdings provided that they have been prescribed by a veterinarian in connection with treatment as referred to in Articles 14(1)(e)(ii) or 15(1)(f)(ii) of Regulation (EC) No 834/2007, that they are stored in a supervised location and that they are entered in the livestock record as referred to in Article 76 of this Regulation, or as appropriate, in the aquaculture production records as referred to in Article 79b of this Regulation."

- (9) In Chapter 5 of Title II, the following Article 36a is inserted:

“Article 36a

Seaweed

1. The conversion period for a seaweed harvesting site shall be six months.
2. The conversion period for a seaweed cultivation unit shall be the longer of six months or one full production cycle.”

- (10) In Chapter 5 of Title II, the following Article 38a is inserted after Article 38:

“Article 38a

Aquaculture animal production

1. The following conversion periods for aquaculture production units shall apply for the following types of aquaculture facilities including the existing aquaculture animals:
 - (a) for facilities that cannot be drained, cleaned and disinfected, a conversion period of 24 months;
 - (b) for facilities that have been drained, or fallowed, a conversion period of 12 months;
 - (c) for facilities that have been drained, cleaned and disinfected a conversion period of six months;
 - (d) for open water facilities including those farming bivalve molluscs, a three month conversion period.
 2. The competent authority may decide to recognize retroactively as being part of the conversion period any previously documented period in which the facilities were not treated or exposed to products not authorized for organic production.”
- (11) The heading of Article 43 is replaced by the following:
"Use of non-organic feed of plant and animal origin for livestock";
- (12) Article 59, paragraph 1 is replaced by the following:
"This Chapter shall not apply to pet food and feed for fur animals."
- (13) Article 60, paragraph 1(a) is replaced by the following:
"(a) the processed feed complies with the provisions of Regulation (EC) 834/2007 and in particular with Article 14(1)(d)(iv) and (v) for livestock or with Article 15(1)(d) for aquaculture animals and Article 18 thereof;"
- (14) In Title IV, the following Chapter 2a is inserted:

“Chapter 2a

Specific control requirements for seaweed

Article 73a

Control arrangements for seaweed

When the control system applying specifically to seaweed is first implemented, the full description of the site referred to in Article 63 (1) (a) shall include:

- (a) a full description of the installations on land and at sea;

- (b) the environmental assessment as outlined in Article 6b(3) where applicable;
- (c) the sustainable management plan as outlined in Article 6b(4) where applicable;
- (d) for wild seaweed a full description and a map of shore and sea collection areas and land areas where post collection activities take place shall be drawn up.

Article 73b

Seaweed Production Records

1. Seaweed production records shall be compiled in the form of a register by the operator and kept available for the control authorities or control bodies at all times at the premises of the holding. It shall provide at least the following information:
 - (a) list of species , date and quantity harvested;
 - (b) date of application, type and amount of fertiliser used.
 2. For collection of wild seaweeds the register shall also contain:
 - (a) history of harvesting activity for each species in named beds;
 - (b) harvest estimate (volumes) per season;
 - (c) sources of possible pollution for harvest beds;
 - (d) sustainable annual yield for each bed.”
- (15) In Title IV, the following Chapter 3a is inserted:

“Chapter 3a

Specific control requirements for aquaculture animal production

Article 79a

Control arrangements for aquaculture animal production

When the control system applying specifically to aquaculture animal production is first implemented, the full description of the unit referred to in Article 63 (1) (a) shall include:

- (a) a full description of the installations on land and at sea;
- (b) the environmental assessment as outlined in Article 6b (3) where applicable;
- (c) the sustainable management plan as outlined in Article 6b(4) where applicable;

- (d) in the case of molluscs a summary of the special chapter of the sustainable management plan as required by Article 25q(2).

Article 79b

Aquaculture animal production records

The following information shall be provided by the operator in the form of a register which shall be kept up to date and made available for the control authorities or control bodies at all times at the premises of the holding

- (a) the origin, date of arrival and conversion period of animals arriving at the holding;
- (b) the number of lots, the age, weight and destination of animals leaving the holding;
- (c) records of escapes of fish;
- (d) for fish the type and quantity of feed and in the case of carp and related species a documentary record of the use additional feed;
- (e) veterinary treatments giving details of the purpose, date of application, method of application, type of product and withdrawal period;
- (f) disease prevention measures giving details of fallowing, cleaning and water treatment.

Article 79c

Specific control visits for bivalve molluscs

For bivalve mollusc production inspection visits shall take place before and during maximum biomass production.

Article 79d

Several production units run by the same operator

When an operator manages several production units as provided for in Articles 25c, the units which produce non-organic aquaculture animals shall also be subject to the control system as laid down in Chapter 1 and this Chapter."

- (16) The heading of Chapter 4 of Title IV is replaced by the following:

"Control requirements for units for preparation of plant, seaweed, livestock and aquaculture animal products and foodstuffs composed thereof"

- (17) The heading of Chapter 5 of Title IV is replaced by the following:

"Control requirements for imports of organic products from third countries"

- (18) In paragraph 2 of Article 93, the following points are added:
- “(e) the number of organic aquaculture animal production units,
 - (f) the volume of organic aquaculture animal production,
 - (g) optionally, the number of organic seaweed units and the volume of organic seaweed production.”
- (19) In Article 95, paragraph 6 is replaced by the following:
- “6. For the purpose of Article 12(1)(j) of Regulation (EC) No 834/2007 and pending the inclusion of specific substances according to Article 16(1)(f) of that Regulation, only products authorised by the competent authority may be used.”
- (20) In Article 95, the following paragraphs are added:
- “11. The competent authority may authorise for a period expiring on 1 July 2013, those aquaculture animal and seaweed production units which are established and produce under nationally accepted organic rules before entry into force of this Regulation, to keep their organic status while adapting to the rules of this Regulation, provided there is no undue pollution of the waters with substances not allowed in organic production. Operators benefiting from this measure shall notify the facilities, fishponds, cages or seaweed lots which are concerned to the competent authority.

- (21) The Annexes are amended in accordance with the Annex to this Regulation.

Article 2

This Regulation shall enter into force on the third day following that of its publication in the Official Journal of the European Union.

It shall apply as from 1 July 2010, with the following exceptions:

- (a) point 4 of Article 1 shall apply the day of entry into force of this Regulation.
- (b) corrective measures as provided for in point 19 of Article 1 and points 1(b) and (c) of the Annex shall apply from the entry into application of Regulation (EC) No 889/2008.

This Regulation may be revised on the basis of relevant proposals from Member States, which are accompanied by a duly justified motivation, with a view of the modification of this Regulation from 1 July 2013.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, [...]

For the Commission

[...]

Member of the Commission

ANNEX

The Annexes to Regulation (EC) No 889/2008 are amended as follows:

(1) Annex I is amended as follows:

(a) The heading is replaced by the following:

"Fertilizers, soil conditioners and nutrients referred to in Article 3(1) and Article 6d(2)"

(b) The headline and the 1st line of the table are replaced by the following:

Authorisation	Name Compound products or products containing only materials listed hereunder	Description, compositional requirements, conditions for use
A	Farmyard manure	Products comprising a mixture of animal excrements and vegetable matter (animal bedding) Factory farming origin forbidden

(c) In the 11th line of the table the last box is replaced by the following:

"For fur: maximum concentration in mg/kg of dry matter of chromium (VI): 0"

(2) Annex III is amended as follows:

(a) In Section 1, a 4th sub-line is inserted in the 6th line for fattening pigs:

Over 110 kg	1,5	1,2
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(3) Annex V is amended as follows:

(a) The heading is replaced by the following:

"Feed materials referred to in Article 22(1), (2) and (3) and Articles 25k(1)(d) and 25m(1)"

(b) in Section 2.2, the fourth indent is replaced by the following:

"– Hydrolysate and proteolysates obtained by an enzyme action, whether or not in soluble form, solely provided to aquaculture animals and young livestock.

(c) in Section 2.2, the following indent is added:

- Crustacean meal"

(4) Annex VI is amended as follows:

(a) The heading is replaced by the following:

"Feed additives and certain substances used in animal nutrition referred to in Article 22(4) and Article 25m(2)"

(b) The second indent of Section 1.1(a) is replaced by the following:

"- Synthetic vitamins identical to natural vitamins for monogastric and aquaculture animals;"

(c) Section 1.3 is amended as follows:

(i) point (b) is replaced by the following:

"(b) Antioxidant substances

E 306– Tocopherol-rich extracts of natural origin used as an antioxidant

– Natural antioxidant substances (use restricted to feed for aquaculture)"

(ii) after point (d) the following point is added:

"(e) emulsifying and stabilising agents:

Lecithin of organic sources (use restricted to feed for aquaculture)"

(5) Annex VII is replaced by the following:

"Annex VII

Products for cleaning and disinfection

1. Products for cleaning and disinfection of buildings and installations for livestock production referred to in Article 23(4):

- Potassium and sodium soap
- Water and steam
- Milk of lime
- Lime
- Quicklime
- Sodium hypochlorite (e.g. as liquid bleach)
- Caustic soda
- Caustic potash
- Hydrogen peroxide
- Natural essences of plants
- Citric, peracetic acid, formic, lactic, oxalic and acetic acid
- Alcohol
- Nitric acid (dairy equipment)
- Phosphoric acid (dairy equipment)
- Formaldehyde
- Cleaning and disinfection products for teats and milking facilities
- Sodium carbonate

2. Products for cleaning and disinfection for aquaculture animals and seaweed production referred to in Articles 6e(2), 25s(2) and 29a.

2.1 Substances for cleaning and disinfection of equipment and facilities, in the absence of aquaculture animals:

- ozone
- sodium chloride
- sodium hypochlorite
- calcium hypochlorite
- lime (CaO, calcium oxide)
- caustic soda
- alcohol

- hydrogen peroxide
- organic acids (acetic acid, lactic acid, citric acid)
- humic acid
- peroxyacetic acids
- iodophores
- copper sulphate: only until 31 December 2015
- potassium permanganate
- peracetic and peroctanoic acids
- tea seed cake made of natural camelia seed (use restricted to shrimp production)

2.2 Limited list of substances for use in the presence of aquaculture animals:

- limestone (calcium carbonate) for pH control
- dolomite for pH correction (use restricted to shrimp production)

(6) In Annex VIII, Section A, the table is amended as follows:

(a) After the 4th line the following line is inserted:

B	E 223	Sodium metabisulphite		x	Crustaceans (2)
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(b) After the 14th line the following line is inserted:

B	E 330	Citric acid		x	Crustaceans and molluscs (2)
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(7) Annex XII is replaced by the following:

"Model of documentary evidence to the operator according to Article 29(1) of Regulation (EC) No 834/2007 referred to in Article 68 of this Regulation"

Documentary evidence to the operator according to Article 29(1) of Regulation (EC) No 834/2007

1. Document Number:

<p>2. Name and address of operator: main activity (producer, processor, importer, etc):</p>	<p>3. Name, address and code number of control body/authority:</p>
<p>4. Product groups/Activity:</p> <ul style="list-style-type: none"> - Plant and plant products: - Seaweed and seaweed products: - Livestock and livestock products: - Aquaculture animals and aquaculture animal products: - Processed products: 	<p>5. defined as:</p> <p>organic production, in-conversion products; and also non-organic production where parallel production/processing pursuant to Article 11 of Regulation (EC) No 834/2007 occurs</p>
<p>6. Validity period:</p> <p>Plant products fromto.....</p> <p>Seaweed products fromto.....</p> <p>Livestock products fromto.....</p> <p>Aquaculture animal products fromto.....</p> <p>Processed products from.....to.....</p>	<p>7. Date of control(s):</p>
<p>8. This document has been issued on the basis of Article 29(1) of Regulation (EC) No 834/2007 and of Regulation (EC) No 889/2008. The declared operator has submitted his activities under control, and meets the requirements laid down in the named Regulations.</p> <p>Date, place:</p> <p>Signature on behalf of the issuing control body/authority:</p>	

"

(8) The following Annex XIIIa is inserted after Annex XIII:

"Annex XIIIa

Section 1

Organic production of salmonids in fresh water:

Brown trout (*Salmo trutta*) – Rainbow trout (*Oncorhynchus mykiss*) – American brook trout (*Salvelinus fontinalis*) – Salmon (*Salmo salar*) – Charr (*Salvelinus alpinus*)– Grayling (*Thymallus thymallus*)– American lake trout (or grey trout) (*Salvelinus namaycush*) – Huchen (*Hucho hucho*)

Production system	Ongrowing 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.
Maximum stocking density	Salmonid species not listed below 15 kg/m ³ Salmon 20 kg/m ³ Brown trout and Rainbow trout 25 kg/m ³ Arctic charr 20 kg/m ³

Section 2

Organic production of salmonids in sea water:

Salmon (*Salmo salar*), Brown trout (*Salmo trutta*) – Rainbow trout (*Oncorhynchus mykiss*)

Maximum stocking density	10 kg/m ³ in net pens
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Section 3

Organic production of cod (*Gadus morhua*) and other Gadidae, sea bass (*Dicentrarchus labrax*), sea bream (*Sparus aurata*), meagre (*Argyrosomus regius*), turbot (*Psetta maxima* [= *Scophthalmus maximus*]), red porgy (*Pagrus pagrus* [= *Sparus pagrus*]), red drum (*Sciaenops ocellatus*) and other *Sparidae*, and spinefeet (*Siganus spp*)

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

Section 4

Organic production of sea bass, sea bream, meagre, mullets (*Liza, Mugil*) and eel (*Anguilla spp*) in earth ponds of tidal areas and costal lagoons

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

Section 5

Organic production of Sturgeon in fresh water

Species concerned: *Acipenser* family

production system	<p>Water flow in each rearing unit shall be sufficient to ensure animal welfare</p> <p>Effluent water to be of equivalent quality to incoming water</p>
maximum stocking density	30 kg/m ³

Section 6

Organic production of fish in inland waters

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

Production system	<p>In fishponds which shall periodically be fully drained and in lakes. Lakes must be devoted exclusively to organic production, including the growing of crops on dry areas.</p> <p>The fishery capture area must be equipped with a clean water inlet and of a size to provide optimal comfort for the fish. The fish must be stored in clean water after harvest.</p> <p>Organic and mineral fertilisation of the ponds and lakes shall be carried out in compliance with Annex I of Regulation 889/2008 with a maximum application of 20kg Nitrogen/ha.</p> <p>Treatments involving synthetic chemicals for the control of hydrophytes and plant coverage present in production waters are prohibited.</p> <p>Areas of natural vegetation shall be maintained around inland water units as a buffer zone for external land areas not involved in the farming operation in accordance with the rules of organic aquaculture.</p> <p>For grow-out "polyculture" shall be used on condition that the criteria laid down in the present specifications for the other</p>
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	species of lakes fish are duly adhered to.
Farming yield	The total production of species is limited to 1500kg of fish per hectare per year.

Section 7

Organic production of penaeid shrimps and freshwater prawns (*Macrobrachium sp.*)

Establishment of production unit/s	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.
Conversion time	Six months per pond, corresponding to the normal lifespan of a farmed shrimp.
Broodstock origin	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.
Eyestalk ablation	Is prohibited.
Maximum on farm stocking densities and production limits	Seeding: maximum 22 post larvae/m ² Maximum instantaneous biomass: 240 g/ m ²

Section 8

Molluscs and echinoderms

Production systems	Long-lines, rafts, bottom culture, net bags, cages, trays, lantern nets, bouchot poles and other containment systems. For mussel cultivation on rafts the number of drop-ropes shall not exceed one per square meter of surface area. The maximum drop-rope length shall not exceed 20 metres. Thinning-out of drop-ropes shall not take place during the production cycle, however sub-division of drop ropes shall be permitted without increasing stocking density at the outset.
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Section 9

Tropical fresh water fish: milkfish (*Chanos chanos*), tilapia (*Oreochromis sp.*), siamese catfish (*Pangasius sp.*)

Production systems	Ponds and net cages
Maximum stocking density	<i>Pangasius</i> : 10 kg/m ³

	<i>Oreochromis</i> : 20 kg/m ³
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Section 10

Other aquaculture animal species: none