Brief Information about Organic Certification of Aquaculture incl. Microalgae acc. to Reg. (EU) 2018/848

1. Introduction

Compared to the current version of the regulation, the EU rules for organic aquaculture mainly changed formally.

However, there are new regulations for the rearing of sea fish larvae, new maximum numbers for parasite treatments for species other than salmon and the exception for conventional stocking of young animals if the species has not yet been produced organically.

A formal restructuring of algae (including phytoplankton) aquaculture has taken place. A major change in mussel culture is that the ecological demands on breeding areas have increased.

Remaining significant changes, also affecting aquaculture, are the introduction of a database for the availability of juveniles/breeders and changes in the requirements for business groups.

Only open housing systems such as ponds, basins, flow channels and housing systems in open bodies of water may continue to be used. Production in circulatory systems is limited to the rearing of brood and young animals, as well as to the production of ecological microalgae and feed organisms (Reg. (EU) 2018/848, Annex II, Part III, 3.1.5.).

2. Site selection & sustainability plan

Locations must be selected that are not contaminated by products or substances that are not approved for organic production or by pollutants.

For all plants with an annual production of more than 20 tons of aquaculture products, a corresponding environmental assessment must be carried out and the results submitted to the inspection body (Reg.(EU) 2018/848, Annex II, Part III, 1.3).

Depending on the size of the company, the company must draw up a corresponding sustainability plan for aquaculture and algae harvesting and keep it up to date. This contains u. Information on the reduction of nutrient input, the effects on the environment, protective and preventive measures against predators and a concept for waste reduction (Reg.(EU) 2018/848, Annex II, Part III, 1.5 - 1.9).

3. Production unit

The entire operation must be run according to the organic regulation. However, a subdivision into individual, clearly separated production units is permissible. In contrast to terrestrial animal species, algae and aquaculture animals on the farm may also belong to the same ecological and conventional species (Reg. (EU) 2018/848, Chapter III, Article 9, (7)).

Areas or locations that have been designated by the authorities of the member states as unsuitable for aquaculture activities do not allow organic production (Regulation (EU) 2018/848 Annex II, Part III, 1.2).

4. GMO

There is a ban on genetically modified organisms (GMOs) along the entire value chain (Reg. 2018/848, Chapter III, Article 11). In aquaculture, this is particularly important for young animals and feed, but also, for example, for bacterial cultures for water treatment.

5. Conversion

Specific conversion times are given for the ecological algae and aquaculture production units and the existing livestock. The conversion period begins at the earliest when the company has reported the conversion to the responsible control body. The husbandry conditions for organic production must apply without restrictions from the first day of conversion.

The following conversion times apply (Regulation 2018/848, Chapter III, Article 10):

- ✓ for systems that cannot be emptied, cleaned and disinfected, a conversion period of 24 months;
- ✓ for systems that have been emptied or in which a rest period has been observed, a conversion period of 12 months;
- ✓ a conversion period of six months for systems that have been emptied, cleaned and disinfected;
- ✓ for systems in open water, including mussel cultures, a conversion period of three months.

Retrospective recognition of a documented and regulation-compliant period in the past as a conversion period is possible, but earlier periods can only be recognized retrospectively if the area used was a natural or agricultural area and was not treated with products or substances that are not approved for organic production for at least three years (Reg. (EU) 2018/848, Chapter III, Article 10 and Impl. Act Reg. (EU) 2020/464, Article 1).

6. Origin of the aquaculture animals, breeding

Regarding the origin of the aquaculture animals, the fact that the young stock must come from ecological breeding stocks and ecological production units continues to apply (Regulation 2018/848 Annex II, Part III, 3.1.2.1).

In addition, only indigenous cultivated species and species of Regulation 708/2007 Annex IV may be cultivated.

Acc. to Reg. (EU) 2018/848 Annex II, Part III, 3.1.2.2) the breeding of ecological aquaculture animals takes place without the use of hormones and hormone derivatives;

An artificial generation of same-sex strains is only allowed by manual sorting, no polyploidy induction, artificial hybridization and cloning.

The offspring in hatchery and young animal stations may take place in closed circulation systems. The water may be artificially heated or cooled and the use of ultraviolet light and ozone is permitted.

When rearing larvae of sea fish species, rearing systems (preferably “mesocosm system” or “large tank rearing”) are permitted. These rearing systems must meet the requirements of Reg. 2020/427, Appendix, 3):

- ✓ the initial stocking density is below 20 eggs or larvae per liter;
- ✓ the larvae rearing tank has a capacity of at least 20 m3 and the larvae feed on natural plankton that develops in the tank and, if necessary, is supplemented by externally generated phytoplankton and zooplankton.

<u>Purchase of conventional young animals</u>

The purchase of non-organic young animals can only be approved if the species was not already produced as organic in the Union on 01.01.2022. This deviation allows a maximum of 50% non-organic young animals to be brought in, provided that they spend 2/3 of the production cycle in organic farming exclusively for a period of two years (Reg. (EU) 2018/848 Annex II, Part III, 3.1.2.1.e) .

<u>Purchase of conventional parent animals for breeding purposes</u>

The purchase of non-organic or wild-caught parent animals for breeding purposes can still be approved if no organically produced breeding animals are available or if a renewal of the genetic stock is necessary (Reg. (EU) 2018/848, Annex II, Part III, 3.1.2.1.d)

The non-organic parent animals must be kept organic for at least three months before they can be used for breeding purposes.

For species that are on the Red List of Endangered Species of the World Conservation of Nature Union, this only applies if they are part of recognized species protection programs.

Use of juvenile aquaculture animals caught in the wild

Juvenile aquaculture animals caught in the wild (fish and crustacean larvae) may be used, provided that they flow in naturally when the housing facility is filled up.

In addition, use is permitted if the species is kept in extensive aquaculture in wetlands, stocking is approved by the responsible authorities and the animals are only fed with feed that occurs naturally in the environment. It should be noted that the new regulation excludes species that are on the IUCN Red List of Endangered Species from active stocking (Reg. (EU) 2018/848, Annex II, Part III, 3.1.2.1.e)

7. System

Systems must offer enough space to move around, good water quality and appropriate temperatures and lighting conditions (Reg. (EU) 2018/848, Annex II, Part III, 3.1.5.3).

The water quality and the condition of the fish must be monitored regularly and stocking densities adjusted accordingly.

Aquaculture in ponds, basins or flow channels must have natural filter beds, settling basins, biological or mechanical filters for the retention of waste nutrients or use algae or animals (mussels) that help improve the quality of the wastewater. The drainage water should be checked regularly (Reg. (EU) 2018/848, Annex II, Part III, 3.1.5.9).

Rearing facilities on land must also have natural vegetation of 10% of the area at the edge of the facility ("pond edge") instead of the previous 5%. It must be possible to monitor and control the water exchange rate and water quality of the incoming and outgoing water in the case of flow systems (Reg. (EU) 2018/848, Annex II, Part III, 3.1.5.5).

In the case of freshwater fish, care must be taken to create soil conditions that are as natural as possible. The following still applies to carp and related species (Reg. (EU) 2018/848, Annex II, Part III, 3.1.5.2):

- ✓ a natural soil is to be provided;
- ✓ a maximum of 20 kg nitrogen / ha may be used for fertilization;
- ✓ the use of synthetic chemical agents to control plant growth in the production waters is prohibited.

In addition, the following applies to the keeping of carp fish and other associated species in polyculture, including perch, pike, catfish, whitefish and sturgeon (Reg. 2008/889, Annex XIIIa, Section 6):

- ✓ these should be raised in fish ponds and lakes. Lakes must only be used for organic production, including arable farming in their dry areas;
- ✓ Stripes with natural vegetation around the inland waterways serve as buffer zones to adjacent areas that are not managed according to the specifications of ecological production;
- ✓ the fishing area of this must have a fresh water inflow and its size must be adapted to the animal welfare;

- ✓ Fish should be kept in fresh water after harvest;
- ✓ In the case of polyculture, the needs of all types of stocking must be taken into account equally.

When keeping salmonids in fresh water, care must be taken to ensure that the water exchange rate in open systems enables an oxygen saturation of at least 60%, meets the needs of the animals and ensures sufficient drainage of the keeping water.

Further species-specific housing conditions can be found in Annex XIIIa of Reg. 2020/464.

8. Light and ventilation

If artificial lighting is used, it must be adapted to the ethological needs, geographical conditions and the general health of the animals. The duration of daylight must not be artificially increased beyond a maximum of 14 hours per day, except for reproductive purposes. Compared to Reg. (EC) No. 889/2008, 2 hours less per day are now allowed.

It is also important to ensure that the use of dimmers or background lighting prevents abrupt changes in light intensity.

Ventilation is allowed in the interests of animal welfare and health. The ventilation equipment should be powered by renewable energy.

Pure oxygen may only be used in the following cases:

- ✓ in the event of unusual temperature changes, pressure drops or accidental pollution of the water;
- ✓ in the case of isolated management procedures such as sampling and sorting;
- ✓ to ensure the survival of the population.

9. Overview of stocking densities

The stocking density is defined as the live weight of aquaculture animals per cubic meter of water at any point in the growth phase or, in the case of flatfish and shrimp, the weight per square meter of area (Regulation 2018/848, Chapter II, (4)).

Further species-specific housing conditions and stocking densities can be found in Annex XIIIa of Regulation 2020/464.

10. Escape from animals

Housing facilities must be designed in such a way that the risk of the animals escaping is minimized. Should the case nevertheless occur, appropriate measures must be taken, including recapture if necessary, in order not to endanger the ecosystem as far as possible. These measures must be documented (Reg. (EU) 2018/848, Annex II, Part III, 3.1.5.8).

11. Animal welfare

(Reg. (EU) 2018/848, Appendix II, Part III, 3.1.6.2)

In order to be able to guarantee animal health and protection, the keepers of aquaculture animals must have the necessary basic knowledge and skills in the areas of animal health and animal welfare.

The manipulation of aquaculture animals is reduced to a minimum and carried out with the utmost care using suitable equipment and procedures in order to avoid stress and injuries associated with manipulation (the animals may have to be anesthetized). Sorting processes are reduced to a minimum and are only carried out if this is necessary to ensure the well-being of the animals.

It is forbidden to remove or manipulate eye stalks.

12. Nutrition and feed

(Reg. (EU) 2018/848, Appendix II, Part III, 3.1.3)

The diet of fish, crustaceans and echinoderms is divided into the following parts:

- ✓ General rules for feeding (Regulation 2018/848, Annex II, Part III, 3.1.3.1)
- ✓ Carnivorous aquaculture animals (Regulation 2018/848, Annex II, Part III, 3.1.3.3.))
- ✓ Aquaculture animals in inland waters (Regulation 2018/848, Annex II, Part III, 3.1.3.4.))
- ✓ Products and substances approved for use as feed or for the production of feed (Implementing act 2021/1165, Annex III)
- ✓ Definitions of feed (Regulation (EC) No. 767/2009

13. General rules for feeding

(Reg. (EU) 2018/848, Annex II, Part III, 3.1.3.1)

In general, the following applies to the feeding of fish, crustaceans and echinoderms:

- ✓ The animals are to be fed with feed which corresponds to the nutritional needs of the animals in their various stages of development;
- ✓ the relevant requirements for a feeding regime are:
- ✓ Animal health and welfare;
- ✓ high product quality, including a nutritional composition of the product that ensures high quality of the final edible product;
- ✓ low environmental impact;
- ✓ Non-organic feed materials originating from plants, animals, algae or yeast, feed materials of mineral or microbial origin, feed additives and processing aids may only be used if they are approved for use in organic production in accordance with the ordinance;
- ✓ the use of growth promoters and synthetic amino acids is prohibited.

In addition, it should be noted that the vegetable content of the feed must be of organic origin.

14. Carnivorous aquaculture animals

(Reg. (EU) 2018/848, Appendix II, Part III, 3.1.3.3.)

In the case of carnivorous aquaculture animals, which are usually fed with complete feed (e.g. pelleted feed), the complete feed purchased must be eco-certified. Compound feed manufacturing companies

are independently controlled and certified. When purchasing feed, it is therefore important to ensure that it has a valid certification.

Carnivorous aquaculture animals are fed in the following order:

- ✓ with feed from organic aquaculture production;
- ✓ with fish meal and fish oil from the remains of the processing of fish, crustaceans or molluscs from organic aquaculture;
- ✓ with fish meal and fish oil and other feed materials made from fish from remains of the processing of fish, crustaceans or molluscs that come from sustainable fisheries and are intended for human consumption;
- ✓ with fish meal and fish oil and other feed materials made from fish from whole fish, crustaceans or molluscs that come from sustainable fisheries and are not intended for human consumption;
- ✓ with organic feed materials of plant or animal origin (VO 2020/427, Appendix, 3, b).

15. Aquaculture animals in inland waters

During the waxing phase, freshwater fish, flagellated shrimp, freshwater shrimp and tropical freshwater fish are fed as follows:

- ✓ They feed on the natural food supply in ponds and lakes;
- ✓ if natural food according to letter a) is not available in sufficient quantities, organic feed of plant origin, preferably from the farm itself, or algae may be fed. The necessity of additional feeding is to be documented by the entrepreneurs;
- ✓ when feeding with natural food according to letter b)
- ✓ the feed ration for flagellum shrimp and freshwater shrimp (Macrobrachium spp.) may contain a maximum of 25% fish meal and 10% fish oil from sustainable fisheries,
- ✓ the feed ration for shark catfish (Pangasius spp.) may contain a maximum of 10% fish meal or fish oil from sustainable fisheries.

16. Products and substances approved for use as animal feed or for the production of animal feed

Annex III of the Impl. Reg. (EU) 2021/1165 is particularly relevant for feed manufacturers who are independently controlled and certified. Companies that buy organic-certified feed externally must i. d. As a rule, therefore, do not check the feed again. There are no significant changes to the previous regulation in the area of organic aquaculture.

17. Disease prevention and veterinary treatment

(Reg. (EU) 2018/848, Annex II, Part III, 3.1.4.1.)

Disease prevention is based on keeping the animals under optimal conditions, i. H. appropriate choice of location, including the needs of the species are taken into account in terms of water quality, water flow and water exchange rate, optimal organization of the holding, application of good husbandry and

management practices, including regular cleaning and disinfection of the facilities, high quality feed, adequate stocking density and choice of suitable breeds and lines ;

The following principles apply to disease prevention:

- ✓ The use of immunologically active veterinary medicinal products is permitted;
- ✓ An animal health plan is in place, which includes measures for biological safety and disease prevention and includes a written agreement on health advice appropriate to the production unit with qualified health services for aquaculture animals who visit the farm at least once a year (in the case of mussel farming, at least once every two years);
- ✓ Housing systems, equipment and devices are properly cleaned and disinfected;
- ✓ biological growth is only removed mechanically or by hand and, if necessary, thrown back into the sea at some distance from the system;
- ✓ for the cleaning and disinfection of equipment and systems, only agents that are approved for use in organic production may be used;
- ✓ If necessary, any remaining fish feed, excrement and dead animals are removed immediately so as not to risk a significant deterioration in the water quality, to limit the risk of disease and not to attract insects or rodents;
- ✓ For the biological control of ectoparasites, cleaner fish are preferably used and fresh water, salt water and sodium chloride solutions are used.

Furthermore, the competent authority or control authority or agency can decide whether and for how long a rest period is to be observed for housing facilities in the open sea. These must be adhered to and documented.

During the rest period, the net cages (and other housing facilities) are emptied, disinfected and remain unoccupied until they are used again.

The rest periods do not apply to mussel farming.

Should health problems arise in spite of the disease prevention, diseases must be treated immediately in order to avoid suffering to the animals. Under strict conditions and under the responsibility of a veterinarian, chemical-synthetic allopathic veterinary medicinal products, including antibiotics, may be administered if necessary, if treatment with phytotherapeutic, homeopathic and other products is unsuitable.

The use of veterinary medicinal products must be reported to the competent authority or, if applicable, to the control authority or control body before the animals are marketed as organic products.

The following principles apply, as well as restrictions on the number of treatments and provisions on waiting times

- ✓ Allopathic treatments are limited to two treatments per year, with the exception of vaccinations and measures as part of mandatory eradication plans. However, if the production cycle is less than a year, only one allopathic treatment is allowed. If allopathic treatment is more common, the animals concerned may not be marketed as organic products;

- ✓ the waiting time after the administration of allopathic veterinary medicinal products and after parasite treatments, including in the context of compulsory disease control and eradication programs, is twice as long as the mandatory waiting time in accordance with Article 11 of Directive 2001/82 / EC or, if no waiting time is specified, 48 hours;

- ✓ Treatments prescribed by Union law for the protection of human and animal health are permitted;

- ✓ As a first step and unless chemical-synthetic allopathic veterinary drugs are expressly required, veterinary drugs should be administered in the following order of priority:

- ✓ vegetable, animal or mineral substances in homeopathic dilution;

- ✓ Plants and plant extracts that do not have an anesthetic effect; and

- ✓ Substances such as trace elements, metals, natural immunostimulants or approved probiotics,

For all species other than salmon, the delegated Regulation (EU) 2021/716 must also be observed. Here new maximum levels and frequencies for parasite treatments are introduced for species other than salmon:

For salmon, parasite treatments, with the exception of mandatory disease control programs in the Member States, are allowed a maximum of two treatments per year or one treatment per year if the production cycle is less than 18 months.

18. Transport

(Reg. (EU) 2018/848, Appendix III; 4.)

Appropriate measures must be taken to keep the duration of the transport of aquaculture animals as short as possible and to avoid stress for the animal. Accordingly, the transport densities are to be adjusted appropriately according to the containers.

Transport containers must be thoroughly cleaned, disinfected and rinsed out before use. The transport water must meet the physiological requirements of the fish in terms of temperature and oxygen content.

Records must be kept of the type and condition of the transport containers, water quality and transport density.

19. Slaughter

(Reg. (EU) 2018/848, Appendix II, Part III, 3.1.6.6)

Suffering of the animals must be kept as low as possible during their entire lifespan and during slaughter. When slaughtering, care is taken to ensure that the fish are stunned immediately and do not feel any pain. When manipulating the animals before slaughter, care is taken to keep injuries and stress to a minimum. When deciding on the best slaughtering method, different fish sizes, species and production locations must be taken into account.

20. Mussels and other molluscs

Requirements for growing waters

In the growth phase, mussels have to feed by filtering out small organisms from natural waters. Only in hatcheries and rearing facilities may the need for nutrition take place through other feeding measures.

Origin of the mussel seeds

(Reg. (EU) 2018/848, Appendix II, Part III, 3.2.1)

The following requirements still apply to the origin of the mussel seed.

What is new here is that the collection of mussel seed from wild stocks always requires the prior approval of the competent authority.

Requirements for the origin of the mussel seed:

Insofar as this does not noticeably damage the environment and local regulations permit this, mussel seed from wild mussel colonies outside the production unit may be used if:

- ✓ it comes from mussel beds that are unlikely to survive winter or from banks that can be dispensed with for the conservation of game stocks; or
- ✓ there are natural settlements of mussel seed on collectors;
- ✓ In the case of the Pacific oyster (Crassostrea gigas), it is preferred to use selectively grown stock material that reproduces less frequently in the wild;
- ✓ Records are kept of how, where and when mussel seed was collected from wild stocks to allow tracing back to the collection area.

21. Husbandry practices

When keeping and breeding mussels, it should be noted that they may only be raised using the following methods (Regulation 2020/464, Appendix II, Part IX):

linen

Rafts

Cultivation on the seabed

Mesh bags

Cages

Boxes

Lantern nets

Shell stakes

Other housing systems

When cultivating with rafts, a maximum of one rope per square meter of surface may be hung in the water. These ropes must not be longer than 20 meters. Thinning is not permitted. A subdivision of the ropes without increasing the density of the ropes is permitted.

Cultivation on the seabed is only permitted if there is no noticeable negative impact on the environment. This is to be submitted to the control authority / body at the start of operations by means of an investigation including a report to prove the lowest possible environmental pollution and to be recorded in the sustainability plan (Reg. (EU) 2018/848, Annex II, Part III, 3.2.3)

Areas must be clearly marked by stakes, floating bodies or other measures and potential dangers to other species placed under protection must be excluded as far as possible. Nets to protect against predators are constructed in such a way that diving birds cannot be harmed.

Polyculture with fish and algae production is allowed and must be recorded in the sustainability plan.

In addition, the following must be observed during management (Reg. (EU) 2018/848, Annex II, Part III, 3.2.4):

The stocking density does not exceed the stocking density of non-organically managed shellfish production facilities at the same location. Sorting, thinning out and adjusting the stocking density are carried out on the basis of the biomass, taking animal welfare into account and with the aim of high product quality;

Biological growth is removed mechanically or by hand and, if necessary, thrown back into the sea at a greater distance from the breeding facilities. Shellfish may be treated with a calcium solution once during the production cycle to protect them against harmful growth organisms.

The following applies to oysters: cultivation in bags on tables is permitted. These tables and other devices for rearing oysters must be set up in such a way that there is no continuous barrier along the shoreline. For optimal production, the oysters are carefully placed taking into account the tidal currents.

22. Conversion

(Reg. (EU) 2018/848, Appendix II, Part III, 2.1)

When converting production units, the various methods of algae production must be observed:

For a production unit for collecting algae, the conversion period is six months.

For a production unit for algae cultivation, the conversion period is six months or a full production cycle if this is longer than six months.

23. Requirements for growing waters and collection areas

(Reg. (EU) 2018/848, Appendix II, Part III, 2.2.1)

For the collection of wild algae and its parts, the collection areas must have a very good ecological status and the collection of algae must not impair the stability of the natural ecosystem or the conservation of the species in the collection area.

24. Breeding areas

(Reg. (EU) 2018/848, Appendix II, Part III, 2.2.2)

Areas for growing algae must meet the same requirements as for the aforementioned collection areas and also comply with the following production regulations:

Sustainable practices are to be applied at all stages of production from the collection of the young algae to the harvest;

In order to maintain the breeding stock in indoor facilities and to promote its diversity and to ensure that a large gene pool is maintained, young algae are to be regularly collected in open waters;

Fertilizers that are approved for use in organic production for this purpose may only be used in indoor facilities.

25. Keeping & collecting of algae

Housing practices in the sea

(Reg. (EU) 2018/848, Appendix II, Part III, 2.3.)

In the case of keeping in the sea, only nutrients are used that occur naturally in the waters or come from the ecological production of aquaculture animals, which are preferably settled nearby as part of a polyculture system.

In the case of systems on land where nutrients are supplied from the outside, the nutrient content of the wastewater must demonstrably not be higher than the nutrient content of the inflowing water. Only plant or mineral nutrients approved for use in organic production may be used.

The culture density or management intensity is recorded and ensures the integrity of the aquatic environment by ensuring that the maximum amount of algae that can be extracted without harming the environment is not exceeded.

Ropes and other devices for algae production are reused or recycled as far as possible.

Collection of wild algae stocks

(Reg. (EU) 2018/848, Appendix II, Part III, 2.4.)

For the collection of algae, a one-time estimate of the biomass must be made when the activity is started.

Records are kept in the unit or in the operating facilities so that the company can determine and the control authority or control body can verify that only wild algae produced in accordance with the provisions of this regulation have been collected and delivered.

In terms of quantity, the collection of algae must not constitute a serious interference with the state of the aquatic environment. Appropriate measures such as collection techniques, minimum sizes, age, reproduction cycles or the size of the remaining algae stock are used to ensure that the algae stocks can be renewed and by-catches are avoided.

If algae are collected in a shared or shared collection area, the relevant authority designated by the Member State concerned must prove that the total collection volume complies with the provisions of this Regulation.

26. Approved cleaning and disinfecting agents

(Impl. act 2021/1165, Annex IV)

From now on, the implementation regulation (EU) 2021/1165 must be observed when using cleaning agents and disinfectants. In this, the permitted funds are divided into the following 3 categories:

Part A - Preparations for cleaning and disinfecting ponds, cages, basins, flow channels, buildings or systems for livestock production;

Part B - Means for cleaning and disinfecting buildings and plants for plant production, including storage on a farm

Part C - Means for cleaning and disinfecting in processing and storage facilities

At the current status, however, no positive list has yet been published. As a transitional provision, the cleaning and disinfecting agents listed in Regulation (EC) 889/2008, Annex VII and the following continue to be used until December 31, 2023 for the cleaning and disinfection of ponds, canals, cages, basins, flow channels, buildings or systems may be used for animal production (Impl. act 2021/1165, Article 12).

Agents for cleaning and disinfecting equipment and facilities in the absence of aquaculture animals may contain the following active substances during the transitional provisions:

Ozone

Sodium hypochlorite

Calcium hypochlorite

Calcium hydroxide

Calcium oxide

Sodium hydroxide

Alcohol

Potassium permanganate

Camellia oil cake (tea seed cake) made from natural camellia seeds (exclusively for shrimp breeding)

Mixtures of potassium peroxomonosulfate and sodium chloride that form hypochlorous acid

Agents for cleaning and disinfecting equipment and facilities both in the presence and in the absence of aquaculture animals may contain the following active substances during the transitional provisions:

Limestone (calcium carbonate) for pH control

Dolomite for pH correction (only for shrimp farming)

Sodium chloride

Hydrogen peroxide

Sodium percarbonate

Organic acids (acetic acid, lactic acid, citric acid)

Humic acid

Peroxyacetic acid

Peracetic and peroctanoic acids

Iodophores (if only eggs are present)

27. Documents to be submitted

For an aquaculture company interested in conversion, the following documents are important and must be submitted in consultation with the control authority or agency. As part of the certification and amendment of the Impl. Reg. (EU) 2020/464, additional documents and records for the following may be requested:

Sustainability plan according to the size of the production unit, which contains at least the following Reg. (EU) 2018/848, Annex II, Part III, 1.5 following):

- ✓ Information on the effects on the environment, the planned environmental monitoring and the measures that are to be taken to reduce the environmental pollution of the adjacent waters and land areas, e.g. the nutrient input per production cycle or per year, to a minimum.
- ✓ Maintenance and repairs of technical systems
- ✓ Protective and preventive measures against predators in accordance with Directive 92/43 / EEC, as well as national regulations
- ✓ Waste reduction concept
- ✓ Information on keeping in polyculture (Reg. (EU) 2018/848, Appendix II, Part III, 3.2.2.)
- ✓ For all systems with an annual production of more than 20 tons, an environmental assessment and its results based on the information in Annex IV of Directive 2011/92 / EU.
- ✓ A declaration to be signed and, if necessary, updated, which includes the following (Reg. (EU) 2018/848, Chapter VI, Article 39):
- ✓ The full description of the organic production unit or the production unit in conversion and the activities to be carried out in accordance with this regulation;
- ✓ Relevant practical measures to be taken to ensure compliance with this Regulation.

In addition, the following records must be kept and made available to the control authority or body upon request:

- ✓ Records on the origin and treatment of aquaculture animals (Reg. (EU) 2018/848, Annex II, Part III, 3.1.2.1);
- ✓ Animal health plan with measures for biological safety and disease prevention including a written agreement on health advice appropriate to the production unit with qualified health services (Reg. (EU) 2018/848, Annex II, Part III, 3.1.4.1.);
- ✓ Records on the use of veterinary medicinal products (Reg. (EU) 2018/848, Annex II, Part III, 3.1.4.2.);
- ✓ Records of the escape of fish or crustaceans or the corresponding measures that were used to prevent negative effects on the local ecosystem (Regulation 2018/848, Annex II, Part III, 3.1.5.8.);
- ✓ During production in the open sea: records of compliance with the prescribed rest periods (Reg. (EU) 2018/848, Annex II, Part III, 3.1.4.1.);

When feeding fish in inland waters, such as flagellated shrimp, freshwater shrimp and tropical freshwater fish (Reg. (EU) 2018/848, Annex II, Part III, 3.1.3.4):

- ✓ Documentation on the need for additional feeding if natural food is not available in sufficient quantities.

When collecting algae (Reg. (EU) 2018/848, Appendix II, Part III, 2.4):

- ✓ one-time estimate of the biomass;
- ✓ Verifiable records showing that only wild algae produced in accordance with regulations were collected and delivered.

When keeping mussels (Reg. (EU) 2018/848, Annex II, Part III, 3.2.1.):

- ✓ Records of how, where and when mussel seed was collected from wild stocks to allow traceability back to the collection area.