

## Info sheet

### Aqua culture at the organic establishment

relevant regulations from the EU-organic-ordinance for fresh water fish and crabs

#### **Origin of the animals:**

Native species are being used. The goal of the breeding is to create to the aquaculture well adapted, healthy and fodder exploiting strains. The species chosen for production do not pose a threat to already existing wildlife populations.

#### **Animal access:**

Until the end of 2015, a maximum of 50% of the stock may result from conventional juvenile fish. Calculations are made with pieces. Starting 01.01.2016, only organic juvenile fish or organic seedlings may be used. Observance of these guidelines will be checked within the calendar year for the whole establishment that includes all species (including the secondary fish). Any stock bred within the company will also be included.

The records must include the pieces of purchase and the own stock, if necessary, the pieces must be calculated with help of the total weight and average weight of a single animal.

#### **Feeding:**

Attention at fodder from purchase, check for organic suitability. Only organic compound feed and mix-/finished feeds may be bought. The necessary evidence – certificate, invoice with organic declaration – must be available at the company.

**Special fodder-requirements for carp (including bass, pike, catfish, whitefish, and sturgeon):** These species largely feed on the natural food sources in ponds.

If these natural food sources are not available in large enough quantities, 50% of the fodder may include organic fodder of plant origins, ideally of the own company, or algae. If additional fodder is necessary it must be documented by the operating manager.

#### **Preventing diseases and treatment:**

An animal healthy management plan must be created. This plan includes measures to ensure organic safety and disease prevention. It also includes a written arrangement about adequate health consultation with qualified health service provider for aquacultures that inspect the company at least once a year.

If necessary, existing fish fodder, excrements and dead animals will be removed immediately to prevent the deterioration of water quality, limit risk of disease and keep away insects and rodents.

If a health problem occurs despite disease prevention, the following animal care measures must be taken in the following order:

1. Use of plant, animal or mineral substances in homoeopathic dilution
2. Use of plants and plant extracts, that do not carry anesthetic qualities
3. Use of substances like trace minerals, metals, natural immunostimulants or approved probiotics

If these measures do not help, the veterinarian may use allopathic animal medicine. Treatment with allopathic medicine may only be utilized twice a year; this excludes immunizations and obligatory amortization schedules. If a production cycle is less than a year old, allopathic medicine may only be used once a year. If allopathic medicine is used more often than allowed, the affected animals may not be sold as organic produce.

Parasite treatments may be carried out twice a year, or only once, if a production cycles lives less than 18 months. This excludes obligatory national control programs.

The waiting period after administration of allopathic medicine and after parasite treatments, including obligatory national control programs, is twice as long as the required waiting period. If no waiting period is defined, a minimum waiting period of 48 hours must be observed.

Treated animals must be identified clearly, for example through identifying the tank/pond of treated fish with colorful buoys.

**Cleaning- and disinfection agents (applies to equipment and facilities):**

The following substances are allowed in attendance and absence of animals:

- Limestone (calcium carbonate) for pH control
- Sodium chloride
- Hydrogen peroxide
- Sodium percarbonate
- Organic acids (acetic acid, lactic acid , citric acid)
- Humic acid
- Peroxyacetic acid
- Peracetic and peroctanoic acids
- Ionophore (if only eggs are present)

The following substances may be used only when animals are absent:

- Ozone
- Sodium hypochlorite
- Calcium hypochlorite
- Calcium hydroxide
- Calcium oxide
- Sodium hydroxide
- Alcohol
- Copper sulphate: only till 31. December 2015
- Potassium permanganate
- Hypochlorous acid forming mixes from potassium peroxo mono sulfate and sodium chloride

**Sustainability plan:**

The company must create an appropriate sustainability concept for the size of the production facilities.

The plan must be updated yearly and contain information to the productions effects on the environment and the intended environmental monitoring plans. It must also include measures to reduce the strain on the environment for bordering bodies of water and land areas. For example, one could reduce the nutrient input per production cycle or per year to a minimum. The plan must also include maintenance and repair work of the technical equipment.

Preferably, renewable energies and recyclable materials are being used. The sustainability plan includes a waste reduction concept that will be implemented when operating the establishment. The use of residual heat is, if possible, to be limited to renewable energies.

**Holding provisions:**

The plant must be designed in a way that will hold aqua culture animals appropriate to the species.

This requires:

- enough motion range to ensure good health
- water of good quality with enough oxygen content. The water change rate and physical-chemical parameter should ensure the wellbeing of the animals.
- temperature and light conditions according to the geographic location are fitting to the requirements of the animals
- for fresh water fish, near-natural ground conditions (pebbly surface at least)
- carp require a surface of natural soil

Closed circular plants for animal production in aquaculture are forbidden, except for breeding grounds and nurseries.

A minimum of 5% of the area around the plant („pond border“) must consist of natural vegetation.

**Handling of aquaculture animals:**

Interference with aquaculture animals must be reduced to a minimum and may only occur if appropriate equipment and processes are carried out with great diligence and care. This is necessary to reduce stress and injuries that may occur during handling of the animals. When dealing with parents animals, injuries and stress must be reduced to a minimum; if necessary, animals may be anaesthetized. Sorting of animals must be reduced to a minimum under consideration of animal protection laws.

Aeration of plants is allowed within consideration of animal protection and animal health. Aeration is allowed if the mechanical devices are run with renewable energies. The aeration of plants is only allowed in exceptional situations.

The use of oxygen is only allowed in the following instances, if the health of the animals as well as critical phases of production and transport demands its use:

- during unusual rises of temperature, pressure loss or accidental contamination
- during singular cultivation processes like sampling or sorting
- to guarantee the survival of the stock

During slaughter, animals must be stunned and not feel any pain. When defining optimal slaughter methods, the various fish sizes, species and production-locations must be considered.

#### **Hormone prohibition**

The use of hormones and hormone derivatives is prohibited.

#### **Processing and marketing:**

The general guidelines of organic declaration concerning allowed ingredients, processing aids, declaration and labeling must be observed.

#### **Records:**

The general records of animal husbandry, as well as processing- and marketing records must be kept. Additionally, the following records are necessary:

- records of seedling production (stripp date, amount hatched, losses...)
- records of withdrawal quantity (for slaughter, live sale etc.)
- records of failures that exceed the norm, and escaped fish
- records of movement of live fish, including fry bread within the plant, including records of any transported fish
- records of treatments, waiting periods, disinfecting agents
- records of maintenance and repair work
- records of average stocking densities of the production units
- sustainability plan
- records of water quality
- records of immediate measures during emergencies (aeration, oxygen supply)

#### **Transport of live fish:**

Live fish are transported in appropriate containers with clean water that corresponds to the physiological demands of the fish concerning temperature and oxygen level.

Before transport of organic produced fish and fish product, the containers must be thoroughly cleaned, disinfected and washed. Measures to reduce stress are met. To protect the fish, species appropriate transport density of animals is observed.

#### **Conversion period:**

For aquaculture production units including the existing aquaculture animals, the following conversion periods apply:

- for plants, that have not been emptied, cleaned and disinfected: 24 months
- for plants, that have been emptied: 12 months
- for plants, that have been emptied, cleaned and disinfected: 6 months

Please regard that shortening the conversion period from 12 or 6 months to the time of clearing/disinfection requires an inspection visit. Please contact ABG to ensure a timely inspection.

#### **Stocking density and specific keeping regulations:**

##### **Salmon anemia in fresh water:**

For

Trout (*Salmo trutta*)

Rainbow trout (*Oncorhynchus mykiss*)

Salmon (*Salmo salar*)

Grayling (*Thymallus thymallus*)

Brook trout (*Salvelinus fontinalis*)

Arctic char (*Salvelinus alpinus*)

Lake trout (*Salvelinus namaycush*)

Danube salmon (*Hucho hucho*)

applies:

The production must take place in open systems. The waterchangerate must produce an oxygen saturation of minimum 60%. It must meet the needs of the animals and ensure the elimination of farming effluent.

maximum stocking density:

Salmon:	20 kg/m <sup>3</sup>
Rainbow- and brown trout:	25 kg/m <sup>3</sup>
Grayling:	25 kg/ m <sup>3</sup>
all other salmonids:	15 kg/m <sup>3</sup>

Sturgeons (*Acipenseridae*):

The water flow of every holding unit must meet the physiological needs of the animals. Effluent water must be of equivalent quality to incoming water.

maximum stocking density: 30 kg/m<sup>3</sup>

Carp (*Cyprinidae*) and other socialized species in polyculture, including bass, pike, catfish, coregonids, sturgeon:

The production takes place in fish ponds that are drained completely in regular intervals.

The fishery capture area must be equipped with a clean water inlet and of size to provide optimal comfort for the fish.

The fish must be stored in clean water after harvest. Organic and mineral fertilization of the ponds with a maximum amount of 20 kg nitrogen/ha is allowed. The use of chemical-synthetic agents to control plant growth in the production ponds is prohibited.

Areas with natural vegetation around the ponds act as puffer zones to bordering areas that do not act within the guidelines of organic production.

For „grow-out „polyculture“ shall be used on condition that the criteria laid down in the present specifications for the other species of the lakes fish are duly adhered to.

Yield: The overall production is limited to 1500 kg fish (of all species) per hectare and year.

River crabs: (*Astacus astacus*, *Pacifastacus leniusculus*):

maximum stocking density:

for crabs up to 20 mm:	100 animals per m <sup>2</sup> .
for crabs between 20 and 50 mm:	30 animals per m <sup>2</sup>
for crabs over 50 mm:	10 animals per m <sup>2</sup> , as long as sufficient hiding spots are available