ORGANIC REFORM-IMPLEMENTATION PLANNING FOR AQUACULTURE

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Article 15(3) of new Regulation
Production rules for algae and aquaculture animals

1. Operators that produce algae and aquaculture animals shall comply, in particular, with the detailed production rules set out in Part III of Annex II and in any **implementing acts referred to in paragraph 3 of this Article (…)**

3. The Commission shall, where appropriate, adopt implementing acts laying down **detailed rules per species or per group of species on the stocking density, and on the specific characteristics for production systems and containment systems**, in order to ensure that the species-specific needs are met.

Article 15(4) of Regulation 2018/848

*"For the purpose of this Article and of Part III of Annex II, "**stocking density**" means the live weight of aquaculture 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"*

Article 25(f)(2) of Commission Regulation 889/2008
General aquaculture hunsbandry rules

"Stocking density and husbandry practices are set out in **Annex XIIIa** by species or group of species (…)"

Annex XIIIa of Commission Regulation 889/2008

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/m3 Salmon 20 kg/m3 Brown trout and Rainbow trout 25 kg/m3 Arctic charr 25 kg/m3

To consider ORAQUA report : III. Threshold limits of oxygen concentration should be set out in Annex XIIIa as follows: marine fish above 80% saturation; salmonids above 70% saturation; carp above 50% saturation.

Annex XIIIa of Commission Regulation 889/2008

- *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/m3 in net pens

To consider ORAQUA report : III. Threshold limits of oxygen concentration should be set out in Annex XIIIa as follows: marine fish above 80% saturation; salmonids above 70% saturation; carp above 50% saturation.

Annex XIIIa of Commission Regulation 889/2008

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 [= Scopthalmus maximux]), 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: 15 kg/m3 For turbot: 25 kg/m2

To consider ORAQUA report : III. Threshold limits of oxygen concentration should be set out in Annex XIIIa as follows: marine fish above 80% saturation; salmonids above 70% saturation; carp above 50% saturation.

Annex XIIIa of Commission Regulation 889/2008

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
Production system	There shall be adequate renewal of water to ensure the welfare of the species, At least 50 % of the dikes must have plant cover Wetland based depuration ponds required
Maximum stocking density	4 kg/m3

To consider ORAQUA report : III. Threshold limits of oxygen concentration should be set out in Annex XIIIa as follows: marine fish above 80% saturation; salmonids above 70% saturation; carp above 50% saturation.

Annex XIIIa of Commission Regulation 889/2008

Section 5

Organic production of Sturgeon in fresh water:

Species concerned: Acipenser family

Production system	Water flow in each rearing unit shall be sufficient to ensure animal welfare Effluent water to be of equivalent quality to incoming water
Maximum stocking density	30 kg/m3

Annex XIIIa of Commission Regulation 889/2008

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	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. 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. ***[Organic and mineral fertilisation of the ponds and lakes shall be carried out in compliance with Annex I to Regulation (EC) No 889/2008 with a maximum application of 20 kg Nitrogen/ha.*** ***Treatments involving synthetic chemicals for the control of hydrophytes and plant coverage present in production waters are prohibited*. (already in the new Regulation)]** 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. For grow-out 'polyculture' shall be used on condition that the criteria laid down in the present specifications for the other species of lakes fish are duly adhered to.
Farming yield	The total production of species is limited to 1 500 kg of fish per hectare per year.

To consider ORAQUA report : III. Threshold limits of oxygen concentration should be set out in Annex XIIIa as follows: marine fish above 80% saturation; salmonids above 70% saturation; carp above 50% saturation.

Annex XIIIa of Commission Regulation 889/2008

Section 7

Organic production of penaeid shrimps and freshwater prawns (Macrobrachium spp.):

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.* ***(for Delegated Act)***
Eyestalk ablation	***Is prohibited (already in new Regulation)***
Maximum on farm stocking densities and production limits	Seeding: maximum 22 post larvae/m2 Maximum instantaneous biomass: 240 g/m2

Annex XIIIa of Commission Regulation 889/2008

Section 7a

Organic production of crayfish:

Species concerned: Astacus astacus, Pacifastacus leniusculus.

Maximum stocking density:	For small-sized crayfish (< 20 mm): 100 individuals per m2. For crayfish of intermediate size (20-50 mm): 30 individuals per m2. For adult crayfish (> 50 mm): 10 individuals per m2, provided that adequate hiding places are available.

To consider: **EGTOP report B:**

- "For adult crayfish (>50 mm), the Group recommends a maximum stocking density of 5 individuals per m2"
- "Due to the moulting process during growth of crayfish and the vulnerability of the animals to cannibalism, it is necessary to provide the animals with **refuges/shelters** i.e. PVC pipes
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Annex XIIIa of Commission Regulation 889/2008

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.

Annex XIIIa of Commission Regulation 889/2008

Section 9

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

Production systems	Ponds and net cages
Maximum stocking density	Pangasius: 10 kg/m3 Oreochromis: 20 kg/m3