

First Stakeholder Event Istanbul, 11&12 October 2014



The current regulatory framework – Challenges from the perspective of organic aquaculture stakeholders

Dr. Stefan Bergleiter s.bergleiter@naturland.de www.naturland.de



20.11.2014 | Folie 1 | www.naturland.de

www.naturland.de

Association for organic farming

Founded in 1982

One of the largest international organic associations

Diverse areas of activity: - agriculture

- processing
- forestry
- aquaculture textiles
- cosmetics
- fair partnerships capture fishery





Challenges in the current organic aquaculture regulation



State of regulation
 Selected issues



Challenges in the current organic aquaculture regulation



2. Selected issues:

a)Permitted organic breeding techniques
b)Demand for organic juveniles
c)Feed for hatcheries
d)Feed for carnivorous species
e)Feed for omnivorous species
f)Stocking densities
g)others

Prohibition of conventional reproduction techniques (but for some species, there are no organic alternatives...)

The regulation is prohibiting

-hormone application for stimuation of spawning

("hypophization"), which is still indispensible for reproduction of e.g. Pangasius catfish, but also of several marine species covered by the regulation (e.g. flat fish, milkfish, rabbit fish, croaker...)

-eyestalk gland manipulation in female parent shrimp, which is still indispensible for breeding of Black Tiger shrimp, but also important for economical reproduction of e.g. Western White shrimp.

The **Capture of wild parent stock** (e.g. in Black Tiger shrimp) is very much restricted, and somewhat unclearly regulated (*e.g. how about already egg-bearing wild shrimp?*)



Demanding Organic Juveniles to fix deadlines (but they are not available for all species or in all places)



710/2009 enters into force at 01.07.2010, but contains various deadlines, in particular:

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.

1364/2013 is only slightly shifting these deadlines and percentages, but this is not helpful for species with **no** availability of organic juveniles at all

'3. The maximum percentage of non-organic aquaculture juveniles introduced to the farm shall be 80 % by 31 December 2011, 50 % by 31 December 2014 and 0 % by 31 December 2015.'

Demanding Organic Juveniles to fix deadlines

(but they are not available for all species or in all places)



Reasons for non-availability can be

-technical (e.g. species not reproducing without eyestalk ligation or hypophization)

-infrastructural (e.g. no regular transport from the next certified organic hatchery)

-legal (no live animal imports permitted)

-economical (organic farm's demand too small for motivating an organic hatchery to convert)

-,,cultural" (regional strains are preferred, but not available in organic quality)

Demanding Organic hatchery/larval feed (but they are not sufficiently available...)



The development of formulated, microencapsuled feed in microscopic pellet sizes for tiny fish and shrimp larvae has been a breakthrough for the reproduction of particularly marine species.

The few companies active on that field have still not produced such feeds in organic quality, due to technical and economic constraints.

The "traditional" technique of cultivating unicellular algae, rotifers, microcrustaceans as a hatchery feed can theoretically be brought in line with basic organic principles, but this is not a solution for all species, still a broad field for R&D, and also demanding more standard development.

Defining feed for carnivorous species

(many questions...)

- Which species are carnivorous?
- Which percentages of fishmeal/-oil in the feed formula are acceptable?
- Which origins of fishmeal/oil are acceptable? Certifications?
- Are terrestrial animal by products acceptable?
- How to deal with deficits in essential amino acids?



Defining feed for omnivorous species (standards are e.g. very tough for organic tilapia... so there are none)

- Which species are omnivorous? (is the definition just that these species *can* be raised on a high level of pond-feed-autoproduction, i.e. extensively, or without fishmeal?)
- Which percentages of fishmeal/-oil in the feed formula are acceptable for those? (is it e.g. adequate to permit some level for pangasius and shrimp, but none for tilapia and carp?)



Defining stocking densities (on which bases...?)

Currently, in 1 hectare of a 1 m deep pond an organic fish farmer is permitted to produce per year:

1.5 t of carp
2.4 t of shrimp
100,0 t of pangasius
200.0 t of tilapia
250.0 t of trout, or
300.0 t of sturgeon.

The carp pond, at such densities, would act as **a nutrient trap**, since the fish would grow more or less **on natural feed alone**.

The other species, at such densities, would rely more or less **completely on external feed** and release a significant amount nutrients.

At least carp, shrimp, pangasius, and sturgeon are **peaceful** species (no fighting at lower or higher densities), and they can live on the **same type of – natural or external – feed** (as e.g. in Asian polyculture). This makes the a.m. differences in the density limits hard to defend.

Others



The pressure to overcome the immediate challenges has led to a certain neglect in developing others, such as:

-holding systems corresponding to the animals' needs

 (d) in the case of freshwater fish the bottom type shall be as close as possible to natural conditions;

-measures for improving biodiversity

(b) at least five percent of the perimeter ('land-water interface') area shall have natural vegetation.

... but the most challenging challenge is:



The approaching expiry date of the **"nationally accepted rules**' **option**", organic standards that have been in place successfully for many years, adjusted to state of public debate, reflecting the state of R&D and the reality of industry.

This option enabled organic aquaculture operators to adapt to the regulation, but also the regulation to further evolve (ORAQUA, EGTOP) without damaging the sector.

Basically, the expiry in January 2015 appears very early, since important amendments of the regulation might take more time.



Thank you very much for your kind attention!



20.11.2014 | Folie 15 | www.naturland.de