

Developing Organic Aquaculture Production – Issues and Dilemmas

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Abstract

The objective of the present paper is to present and discuss issues and dilemmas for organic aquaculture, as well as to give a brief overview of the challenges and opportunities for further development, including the market potential. A number of issues and dilemmas that need to be clarified are presented:

- *Is fish farming compatible with the eco-centric ethics inherent in organic farming, considering the ecological risks involved in sea farming, the advantages of using natural ecosystem services rather than farming, and the dubious task of domestication of new species?*
- *Is it possible to develop more robust aquaculture production systems to reduce the ecological impact of fish farming?*
- *How can organic standards secure welfare of species, for which we know very little about their physiological, behavioral and other welfare needs?*
- *How can we develop suitable fish feeds that take into account ethical, economic, and physiological concerns?*
- *How can conflicting interests and dilemmas related to vaccination and treatment of diseases and parasite infestations be handled?*
- *How do we solve practical or technical problems, for example, those related to securing fish welfare during transport and slaughtering of the fish, pigmentation in fish feeds, and artificial light regimes applied in cages to prevent early sexual maturation of cod?*

Although the consumers are confused by the concept “organic” when applied to fish, the market potential for organic aquaculture seems to be promising in Europe as well as in the USA. Still, the producers seem to feel that the conversion to organic production is a long, costly, and potentially risky business. The current big variation in and debate regarding standards as well as lack of knowledge and research on organic aquaculture are major challenges for the further development of the industry. Hence, it is concluded that there is a big need for more knowledge and research about the fish and organic fish farming, as well as international harmonization of the standards for organic aquaculture.

Furthermore, the production volumes need to be scaled up in order to get consumer attention, get into mainstream distribution channels and reduce production and distribution costs.

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