

Farming Deep, but Aiming High. Economic Incentives and Ecological Imperatives in Open Ocean Fish Farming

4

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Offshore fish farms are highly capital intensive, and operational expenditures are inherently greater than for conventional inshore cage culture systems. Research and development costs offshore are exorbitant, and the risks to investment are very real, and uninsurable. To attract investment, recapture these higher costs, and return an appropriate profit, open ocean ventures must look to a willingness on the part of the consumer to pay a premium for open ocean grown products.

Stronger consumer acceptance and higher price points, however, can be achieved only if open ocean aquaculture comes to be widely perceived as environmentally sound, healthful, and sustainable in the generational sense. This therefore creates a direct link between economic incentives and ecological imperatives in the nascent offshore fish farm industry. It is no longer enough to simply be out in deep water. Open ocean aquaculturists must be seen to be holding themselves to higher environmental standards.

These principles and their corollaries are examined using Kona Blue as an example. The company's branding efforts have successfully highlighted the appealing attributes of Kona Kampachi™ and its offshore farm operations. There has been a strongly positive response from conservation interests, the local community, and consumers to the company's emphases on transparency, ongoing improvement in its practices, and informed, open discussion of the issues.

The major environmental concerns with open ocean aquaculture were identified in the presentation. These include impacts of surface operations on the view plane, privatization of ocean space, long-term sustainability of fish meal and fish oil supplies, the potential impact of escapees on wild stocks, disease transference and the effects of therapeutants, nutrient enrichment effects on water quality and the surrounding ecosystem, depletion of wild stocks from collection of fingerlings for ranching, rational and compassionate management of predators, and the wholesomeness and healthfulness of the product. The validity of each of these concerns was examined. Rather than refuting these issues, or dismissing their potential impacts, it was suggested that these concerns be addressed in an open, rational discussion. Kona Blue's experience in the strongly eco-centric community of Kona, Hawaii indicates that misperception and misinformation are often the greatest enemies. Honest, objective analyses help to allay misplaced or unfounded fears.

Kona Blue's approaches to resolving these issues were discussed. Some cannot be immediately resolved, but are instead best addressed through incremental, ongoing refinement of practices in the hatchery or offshore. More aggressive approaches are needed for other problems. Research priorities were identified.