

*Conference on
Marine
Aquaculture: Effects
on the West Coast
and Alaska Fishing
Industry*

November 17 – 19, 2003



***Fish are our Future:
The 'Road Ahead'
for the Seafood
Industry***



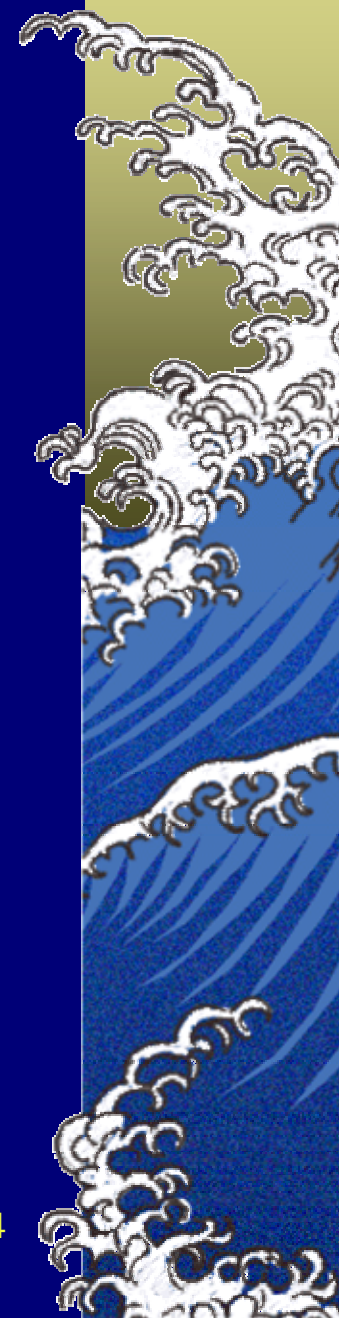
Aquaculture is Impressive

- Annual growth rate of approximately 11% since 1984
- Still the world's fastest growing agricultural industry



Top Aquaculture Countries (by volume)

1. ***China***
2. ***India***
3. ***Japan***
4. ***Philippines***
5. ***Indonesia***
6. ***Thailand***
7. ***Republic of Korea***
8. ***Bangladesh***
9. ***Vietnam***
10. ***Norway***



U.S. Imports of Shrimp & Salmon (2002)

- ▶ *Shrimp > 946,000,000 lbs (87% of U.S. supply, approx. 50% of imports are farm-raised)*
- ▶ *Salmon > 470,000,000 lbs (43% of U.S. supply, approx. 90% of imports are farm-raised)*

*2003 Annual Report on the United
States Seafood Industry,
H.M. Johnson & Associates*



NFI Mission Statement

"NFI is the leading voice for promoting safe, sustainable, affordable seafood as the daily protein food of choice for feeding the world."



NFI is a committed proponent for increasing seafood consumption in the USA

- ▲ *Per Capita Seafood Consumption in the USA*
15+ pounds annually
- ▲ *Per Capita Seafood Consumption in China*
~53 pounds annually
- ▲ *Per Capita Seafood Consumption in Japan*
~150 pounds annually



U.S. Domestic Wild Catch

- *Sustainability is rapidly becoming a significant consideration:*
- *Alaska is seeking MSC certification for Salmon and Pollock*



Imported Wild-caught AND Farm-raised Seafood Products

- *Trade issues are a major concern.*
- *Sustainability and environmental impact are also major issues.*



Domestic Aquaculture

- *Farmed Catfish a 'showcase' example of the American Aquaculture Industry.*
- *“Aquaculture can be the wild capture fisheries 'relief valve'.”*

*A leading seafood
company executive*



Challenges Ahead

- *Environmental activists from the private sector*
- *Non-existent aquaculture siting permits or no procedure for obtaining a permit from the public sector!*



More Challenges Ahead

Media Coverage

- *Sometimes biased or inaccurate*
- *Lack of industry expertise and general skill sets for dealing with mass media and the press*



Salmon Farms

At a meeting of the Liaison Group of the Central and Regional Fisheries Boards held in Inagh Lodge Hotel, Connemara, on Wednesday 24th September 2003, the group:-

- Expressed serious concern at the poor quality of salmon farm management reported in the Prime Time programme last week...
- Breaches of protocol levels in particular in relation to sea lice levels are particularly serious in light of the fact that fishery boards regard the existing protocol levels for live infestation to be far too lenient...
- The group expressed serious disappointment that the targeted effort and spending by the Fisheries Boards to address the sea trout decline had not been matched with good fish farm husbandry by salmon farmers....
- The Group reluctantly decided that if positive action is not taken, the only other choice would be to report the issue to the European Union (EU) and to request the EU to declare sea trout in the affected areas an endangered species.



Ecologically Friendly Aquaculture

“Ecological Aquaculture: The Evolution of the Blue Revolution”

*by Dr. Barry Costa-Pierce,
Director of the Rhode Island
Sea Grant College Program &
Professor of Fisheries and
Aquaculture at University of
Rhode Island*



“Comparisons of energy and production efficiencies of aquaculture versus an array of fisheries and terrestrial agriculture systems confirm that aquaculture – even as it is presently practiced – is an efficient mass producer of animal proteins for a crowded coastal planet...Production efficiencies of edible mass for aquaculture range from 2.5 to 4.5 kg dry feed/kg edible mass compared with 3.0 to 17.4 for conventional terrestrial animal production systems.”

pp. 348 -349

“We cannot catch more fish from the sea. But the world can turn to farming the waters – not just hunting them – and rapidly accelerate the ‘blue revolution’. This blue revolution cannot be a modern clone of the ‘green revolution’ since what is required is an ‘evolution’, not a ‘revolution’. This aquaculture evolution will be a modern, twenty-first century, knowledge-based process to pioneer the development of sustainable, ecologically integrated aquaculture systems that have *positive* impacts on both natural and social ecosystems.”

p. 340



*But British Columbia
lifted the ban on
Salmon farms!*





There are other issues, however

- *Mandatory labeling of fish raised on carotenoid-containing feeds.*
- *Antibiotic residues*
- *PCBs, Malachite green, fat ratios*



Communication!

▲ *We need to understand what the consumer is hearing, what concerns they have and what they want.*

▲ *We need to significantly improve our interaction and communication with the media*



The Road Ahead

- Chicken, beef and pork are our “real” competitors, not wild vs farmed or domestic vs import.
- The main concern should be **EXPANDING** the number of Americans consumers who eat seafood.
- We are not spending enough time and effort to “make the pie bigger.!”

