

CONTENT

	Page
Opening Address	
1. The role of engineering disciplines in aquaculture	1
Aquaculture Engineering Planning and Resources	
2. Planning an aquaculture facility – with special emphasis on bio-programming	19
3. The use of remote sensing in water quality investigations for aquaculture and fisheries	21
4. Site selection decisions and project cost : the case of brackish water pond systems	45
5. Sea bream and sea bass – development of farming techniques	367
6. Marine hatchery technology – systems review	65
Cage Engineering	
7. Engineering analysis and design of cage systems for exposed locations	77
8. Environmental forces on a floating cage system, mooring considerations,	97
9. Simulation of fish cage response to waves and current	123
10. Bridgestone Hi-Seas fish cage design and use	133
Developments in shrimp Farming and Marine Species Feed Organism Technology	
11. The evolution of prawn grow-out systems and their management in Taiwan	143
12. Feeding rates and food conversion in the brown shrimp – penaeus aztecus	169
Tank Technologies	
13. Technical and economic considerations relating to salmon smolt units	185
14. Marine ongrowing of Atlantic salmon in pumped ashore tank farms : review of economic viability	195
15. Making the most of your flow (in fish rearing tanks)	211
16. Design of water for closed fish farms	241
17. Experimental design of an oyster grow-out system	251
Environmental Considerations of Aquaculture	
18. Reduced Discharge of Nitrogen and Phosphorus from fish farming by change in diet composition	263
19. Optimisation in aquaculture : a need for biological modelling and automatic control	273
20. Engineering aspects of integrated fish – cum- duck culture in Hungary	281
Recycle Systems (Technology Applications)	
21. Fluid mixing in submerged packed bed biofilters for intensive aquaculture	299
22. A moveable aerator for cleaning the bottom of rearing tank	381
Control of the Culture Environment	
23. Modelling vertical water quality profiles in aquaculture ponds : review and analysis	313
24. Bioaugmentation : biotechnology for improved aquacultural production and environmental Protection	329
25. The operation, performance and computer design of high rate algal ponds	389
26. Heating of hatchery water supplies	343
Poster Paper	
27. Aeration and oxygenation	357
Index	413