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Nota di contenuto	Aquaculture Production Systems; Contents; Contributors; Preface; Acknowledgments; 1 The Role of Aquaculture; 1.1 Seafood demand; 1.2 Seafood supply; 1.3 Seafood trade; 1.4 Status of aquaculture; 1.5 Production systems; 1.6 The future and the challenge; 1.7 References; 2 History of Aquaculture; 2.1 Beginnings of aquaculture; 2.2 Expansion prior to the mid-1800s; 2.3 The explosion of hatcheries; 2.4 Art becomes science; 2.5 Commercial finfish species development; 2.6 Shrimp culture; 2.7 Mollusk culture; 2.8 Controversy; 2.9 References; 3 Functions and Characteristics of All Aquaculture Systems 3.1 Differences in aquatic and terrestrial livestock3.2 Ecological services provided by aquaculture production systems; 3.3 Diversity of aquaculture animals; 3.4 Temperature classifications of aquacultured animals; 3.5 Temperature control in aquaculture systems; 3.6 Providing oxygen in aquaculture systems; 3.7 Waste control in aquaculture systems; 3.8 Aquaculture systems; 4.2 Semi-closed systems; 4.3 Closed systems; 4.1 Open systems; 4.2 Semi-closed systems; 4.3 Closed systems; 4.4 Hybrid systems; 4.5 References 5 Shellfish Aquaculture5.1 Major species in culture (oysters, clams, scallops, mussels); 5.2 History; 5.3 Biology; 5.4 Culture basics; 5.5

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	Extensive versus intensive culture; 5.6 Spat collection: hatchery, nursery, growout; 5.7 Cultured algae; 5.8 Spawning; 5.9 Larval development; 5.10 Setting; 5.11 Nursery and growout scale considerations; 5.12 Nursery methods; 5.13 Growout methods; 5.14 Fouling; 5.15 Fouling control strategies; 5.16 Predation; 5.17 Harvest; 5.18 Food safety; 5.19 Shellfish diseases; 5.20 Disease management options; 5.21 Genetics: selective breeding; 5.22 Triploidy 5.23 Harmful algal blooms5.24 Site selection; 5.25 Carrying capacity; 5.26 Permitting challenges; 5.27 Nonnative species; 5.28 References; 6 Cage Culture in Freshwater and Protected Marine Areas; 6.1 Current status of cage culture; 6.2 History and evolution of cage culture; 6.3 Advantages and disadvantages of cages; 6.4 Site selection; 6.5 Stocking cages; 6.6 Feeding caged fish; 6.7 Polyculture and integrated systems; 6.8 Problems with cage culture; 6.9 Economics of cage culture; 6.10 Sustainability issues; 6.11 References; 7 Ocean Cage Culture; 7.1 The context for open ocean farming 7.2 Characterization and selection of open ocean sites7.3 Technologies for open ocean farming; 7.4 Finfish species cultivated in open ocean cages; 7.5 Environmental considerations; 7.6 Future prospects and challenges; 7.7 References; 8 Reservoir; 8.3 Natural processes of reservoirs; 8.4 Selection of reservoir; 8.3 Natural processes of reservoirs; 8.4 Selection of reservoir; 8.3 Natural processes of reservoirs; 8.4 Selection of reservoir; 8.3 Natural processes of reservoir ranching around the world; 8.8 Summary; 8.9 References; 9 Flow-through Raceways; 9.1 Types of raceways 9.2 Physical requirements
Sommario/riassunto	Aquaculture is an increasingly diverse industry with an ever-growing number of species cultured and production systems available to professionals. A basic understanding of production systems is vital to the successful practice of aquaculture. Published with the World Aquaculture Society, Aquaculture Production Systems captures the huge diversity of production systems used in the production of shellfish and finfish in one concise volume that allows the reader to better understand how aquaculture depends upon and interacts with its environment. The systems examined r