

The pearl oyster industry is a growing multibillion dollar sector of molluscan aquaculture. The end product of pearl farming, the pearl, is unique to this sector. Pearl production is entirely based upon health. The pearl itself is a product of the oyster's immune defences as a response to soft-tissue irritation. Today, most disease problems are caused by opportunistic pathogens taking advantage of oysters weakened by the stress of handling, including pearl surgery and sub-optimal growing conditions. Further development of the industry will inevitably lead to increased risk of disease introduction, spread or emergence. Against such an unwanted future, health management is the critical line of defence. This publication provides guidance on the management of pearl oyster health and reviews pearl oyster mortalities and disease problems that will be useful for designing programmes aimed at reducing the risks from diseases. Part 1 consists of pearl oyster health – the current interest in it and an overview of the cultured marine pearl industry. Part 2 examines pearl oyster health management and consists of seven sections, namely: (a) introduction; (b) general information on husbandry and handling, hatchery production, introductions and transfers; (c) disease diagnostic protocols dealing with field collections of samples, gross external examination, gross internal examination and laboratory protocols; (d) health zonation; (e) disease outbreak protocols; (f) national strategies on aquatic animal health; and (g) references. Certain countries in the pearl oyster producing regions have acquired a great deal of experience in health management of cultured species. Experiences from Australia, the Cook Islands, Japan, French Polynesia, the Philippines, China, the Persian Gulf and the Red Sea are included in Part 3 which also contains a general review of pearl oyster mortalities and disease problems.

