

# HEALTH MANAGEMENT IN AQUACULTURE



Edited by: GILDA D. LIO-PO, CELIA R. LAVILLA, ERLINDA R. CRUZ-LACIERDA



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# Health Management in Aquaculture

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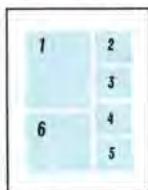
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### ON THE COVER



- 1 fish kill in a milkfish pen in Pangasinan, northern Philippines (PHOTO BY A DE LA VEGA);
- 2 visual inspection of grouper fry in the SEAFDEC hatchery (PHOTO BY R BUENDIA);
- 3 examination of a slide under the microscope (PHOTO BY R BUENDIA);
- 4 the molecular biology laboratory at SEAFDEC (PHOTO BY R BUENDIA);
- 5 monitoring of water parameters (PHOTO BY R BUENDIA);
- 6 shrimp with microsporeans on the abdominal muscle (PHOTO BY R DUREMDEZ)

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# Foreword

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The need for specific educational materials on aquaculture relevant to the tropics has, for several years, been raised in many meetings attended by representatives of state colleges/universities, government extension offices, and R&D institutions. The need for textbooks became more urgent when a few of the colleges/universities started offering fisheries degree programs through the distance education mode.

SEAFDEC/AQD's textbook writing project rapidly came into fruition upon the urging of the Iloilo State College of Fisheries (iscof). AQD has been reputed to house the most number of experts in various fields of aquaculture, and we are only too glad to share our expertise and results of decades of research and development.

This textbook on Health Management in Aquaculture is the beginning. It contains the most up-to-date knowledge of fish and crustacean diseases, the causative organisms, and the measures for disease prevention and control in tropical aquaculture.

Although the primary target reader is the student, there are also other stakeholders in the aquaculture industry who can use the book for quick reference - the fish farmers, farm workers and technicians, fishers and women in fishing communities.

To our readers, we urge that you always bear in mind that aquaculture does not exist in isolation. Aquaculture affects, and, in turn, is affected by its surrounding environment. The responsibility of aquaculture is to increase food supply without damaging the natural support ecosystems. The issue of fish health in particular is illustrative of this paradigm. Widespread disease problems can occur only when the culture environment deteriorates to the point that it favors the growth of disease-causing organism more than the welfare of cultured species. Severe economic loss is just one of the consequences.

We hope that this book would contribute immensely to the study of fish health in aquaculture.



Rolando R. Platon, Ph.D  
Chief, SEAFDEC Aquaculture Department

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