



## RESEARCH ARTICLE



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# A review of reported seaweed diseases and pests in aquaculture in Asia

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## Abstract

Seaweeds have been used as a food for centuries in Asia and are increasingly exploited as a source for dietary supplements, animal feed, chemicals, and biofuels. In recent years, there has been an increase in the prevalence of diseases and pests in these aquaculture crops, with a subsequent reduction in their quantity and commercial value. In this article, we review diseases that have been reported in the scientific literature for species of red and brown seaweeds. We have focused on the major seaweed crops grown in Asia, where much of this production is centered. We also provide information on disease management and biosecurity and some observations on future directions.

## KEYWORDS

cultivated seaweeds, hydrocolloids, ice-ice, *Olpidiopsis*

## 1 | INTRODUCTION

The commercial production of seaweeds has expanded greatly over the past century, with various species exploited for food and dietary supplements, animal feed, chemicals, and biofuels (Tiwari & Troy, 2015). Much of this production is centered in Asia, where *Pyropia*, *Undaria*, and *Saccharina* spp. are cultivated for human

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