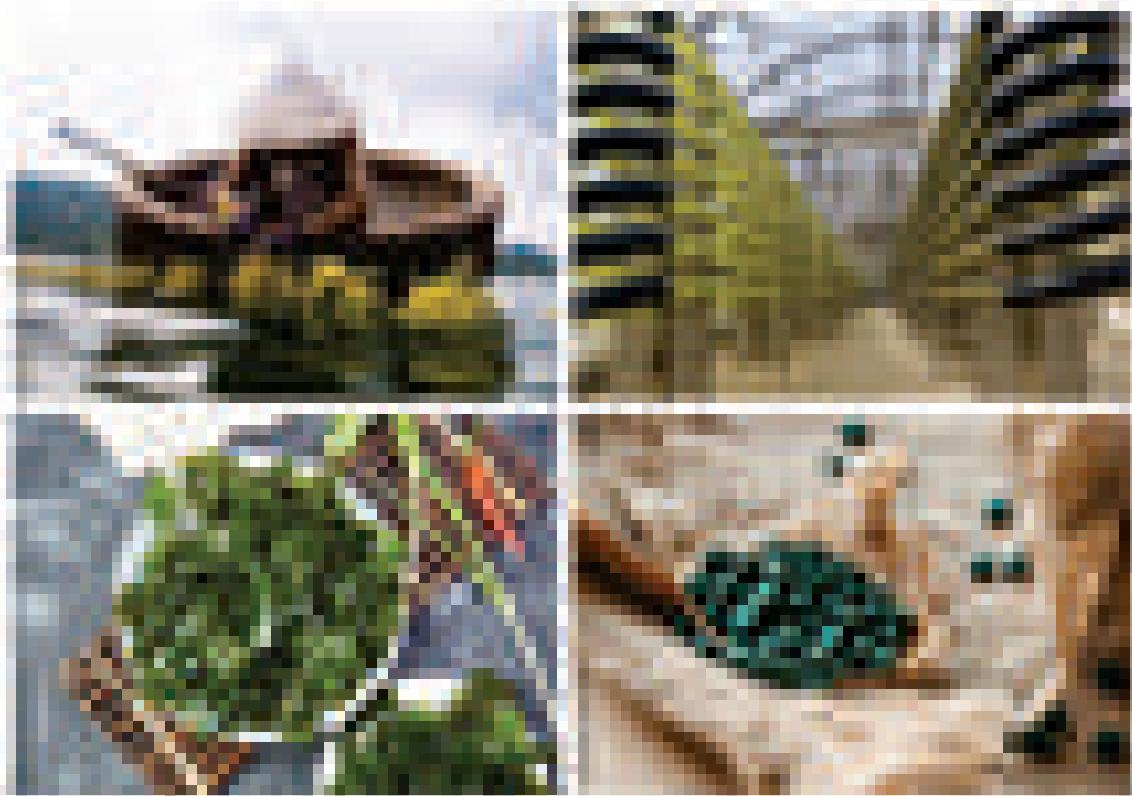


Algal Farming Systems From Production to Application for a Sustainable Future



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Algae-Based Pharmaceuticals for Cancer Treatment: Present Status and Future Application

By Iffat Zareen Ahmad, Anamika Singh

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ABSTRACT

Cyanobacteria anticancer metabolites are observed as a better alternative for cancer therapies. They have

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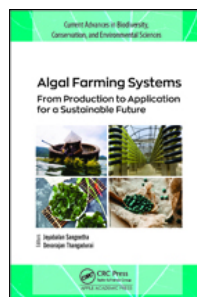
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Algal Farming Systems From Production to Application for a Sustainable Future

Editors: Jeyabalan Sangeetha, PhD
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The farming and cultivation of algae can provide sustainable solutions for issues like food security-related problems, costly health-related products, sustainable fuels, and more. However, the use of algae is currently restricted to high-value, low-volume markets, mainly due to the high investment and production costs involved. In recent years, algaculture for food and fuel purposes has begun a transition from R&D and pilot-scale operations to commercial-scale systems. This new book, *Algal Farming Systems: From Production to Application for a Sustainable Future*, presents the latest technological innovations in algae production, market status, and prospects for algal applications.

The book provides informative overviews of different perspectives on the commercial production of algae-based food, health, and high-value cosmeceutical products, providing an institutional framework to support and promote the development and commercialization of algal farming. The book has been divided into four parts. Part I discusses phycotechnology and highlights the current trends and future scope of algal technology. Part II presents new information on algal culture conditions and cultivation strategies, including a look at geographic position and local climate as key factors in the implementation of microalgae-based processes. Algal production, marketing strategies, and their commercialization are discussed in Part III. A case study on the microalgae market from Allmicroalgae, a biotechnology company in Portugal, is also presented. In Part IV, chapters extensively cover the industrial applications of algae, focusing mainly on nutraceutical, pharmaceutical, and cosmeceutical applications of microalgae and macroalgae. The green synthesis of nanoparticles from algae for various commercial applications is also highlighted in the book.

This book consolidates the latest research on algae in the field, together with market potential and policy considerations. It will be of immense benefit to researchers, academicians, entrepreneurs, policymakers, and those interested in the current status and future possibilities of algae commercialization.

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