

Current Advances in Biodiversity,
Conservation, and Environmental Sciences

Algal Genetic Resources

Cosmeceuticals, Nutraceuticals,
and Pharmaceuticals from Algae



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CHAPTER 5

ALGAL METABOLITES IN NUTRACEUTICAL INDUSTRIES: CURRENT TRENDS AND FUTURE PERSPECTIVES

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ABSTRACT

Nutraceutical is any food item with augmented health benefits besides the usual health benefits of regular foods. Due to the current worldwide interest in finding novel and economical health supplements, there is an increment in the consumption of these nutraceuticals with amplified benefits. Algae endowed with favorable health benefits are amongst the novel entries in this sector. Further, based on the abundance of high-value metabolites algae has gained an important position in the health and nutraceutical markets. Apart from being a protein source, algae have various metabolites such as essential fatty acids (EFAs), essential amino acids (EAAs), vitamins, minerals, carbohydrates, bioactive peptides, pigments, etc. All of these compounds hold valuable therapeutic activities (anticancer, antioxidant, anti-inflammatory, and antimicrobial) and have commercial applications in nutraceutical industries. Keeping in view the great potential of algal metabolites along with its importance in the development of nutraceuticals as a way to improve and maintain health is discussed comprehensively.