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POTENTIAL OF PHYTOHORMONES AS A STRATEGY TO IMPROVE ALGAL PRODUCTIVITY FOR BIOTECHNOLOGY APPLICATION: A REVIEW

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ABSTRACT

Algae are very large and diverse group of autotrophic organism ranging from unicellular to multicellular forms. Algae are important producers of vitamins, minerals, fatty acids, and protein contents. They have tremendous applications include agriculture, dairy, food, pharmaceuticals and cosmetic industries. In all most algal species, all typically known phytohormones like auxin, cytokinin, gibberellic acid, Abscisic acid, ethylene, etc were found in concentration comparable to higher plants. The presence of these hormones regulates metabolism and physicological activities in various algae. A wide range of bioactive compounds such as, pigments, vitamins, carbohydrates, lipids, protein and many more can be produced with algae or microalgae. Therefore such biosynthesis of algae or microalgae with phytohormones, which can enhance the production of highly valuable products. This opinion review article reports the effects of auxins, cytokinin, gibberalic acid, abscisic acid, and ethylene and its effect on algal or microalgal growth and metabolites.

KEYWORDS: *Phytohormones, Algal Bioproducts, Biotechnological Application*