Assessment of different *Arthrospira plantesis* cultivation methods in saltwater and freshwater for mass production

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Abstract

Regarding the potential for high and low-value goods, Arthrospira is one of the most industrially used microalgae. This study assesses recent progress of microalgae culture, systems of cultivation, and modes of growth with an especial concentration on two cases of freshwater based and saltwater based cultivation. The importance of identifying the type of medium suitable for the cultivation of microalgae is highlighted along with descriptions and comparisons of the medium types. Central cultivation systems used for microalgae cultivation are explored along with a report on the effects of large-scale cultivation utilizing those systems. In addition, various growth modes for the production of microalgae, such as phototrophic, heterotrophic, mixotrophic, photoheterotophic modes are explained.

Keywords: Arthrospira, microalgae, cultivation.