

BASIC KNOWLEDGE IN MARINE SCIENCES

Edited by

Normawaty Mohammd-Noor



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Introduction

There are many ways in which humans use algae in their daily lives, whether or not we realize it. Algae have the potential to cater for the ever increasing demands for food, energy, medicine, cosmetics, and also the pharmaceuticals industry (Dhargalkar *et al.*, 2009; Harun *et al.*, 2010). Most algae are harvested from their natural environments but it is now common to find algae being cultivated in large numbers (Dawes, 1995).

Fuel source

Algae contains lipids that can be harvested to make biofuel and it is a better and more sustainable option of biofuel producer compared to terrestrial crops, simply because algae can be obtained all year round and most fuel-producing terrestrial plants are seasonal (Singh *et al.*, 2010; Doan, *et al.*, 2011). Not only are they easy to obtain, they have higher growth rates compared to any terrestrial plants. The challenge in harvesting biofuel from algae does not lie in obtaining the algae, but in identifying which species holds the highest amount of oil.

Food supplement

Ancient Chinese used *Nostoc* to survive during famine. Although algae has been used as food for thousands of years, it is only until the 1950's where the increasing population of the world saw for a need of a new source of proteins in which algae is a good resource (Spolaore *et al.*, 2006). People of Hawaiian, Japanese, Korean and Filipina ancestry have also long consumed seaweed