

# MICROALGAE AND THEIR CULTIVATION SYSTEM TO PRODUCE BIODIESEL

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## ABSTRACT

Biodiesel is an alternative fuel for conventional diesel that is made from natural plant oils, animal fats, and waste cooking oils. This paper discusses the producing biodiesel fuel from algae. Algae range from small, single-celled organisms to multi-cellular organisms, some with fairly complex and differentiated form. Algae are usually found in damp places or bodies of water and thus are common in terrestrial as well as aquatic environments. Like plants, algae require primarily three components to grow: sunlight, carbon-dioxide and water. Photosynthesis is an important bio-chemical process in which plants, algae, and some bacteria convert the energy of sunlight to chemical energy. Micro-algae contain lipids and fatty acids as membrane components, storage products, metabolites and sources of energy. Algae contain anything between 2% and 40% of lipids/oils by weight.