

The National Bioproducts Program

PROJECT #4

Establishing a Canadian capacity to produce biofuels from marine algae

Project Objective

To aid in the development of a Canadian capacity to produce biofuel from algae on an industrial scale.

Driving Forces

- Opportunity for Canadian biofuels market to be a leading source of knowledge and technology in algal biofuel systems on a global scale.
- The use of microalgae as an alternative feedstock for the production of biofuels.
- Easily deployable photobioreactors conceived, designed and constructed in Canada for biodiesel production could be marketed to Canadian and international industries to mitigate CO₂ emissions from factories, refineries, and other point source emitters.
- Opportunities to train highly qualified personnel in algal biology and the production of biofuels.
- Competitive advantage for the Canadian biofuels market by implementing a process that is suitable for the Canadian climate, cost-effective and environmentally friendly.

Real Results for Canada!

- New renewable fuel feedstocks not linked to food production
- Competitive advantage for the Canadian biofuels industry
- Increased Canadian expertise in algal biology and biofuels

Did you know?

A photobioreactor is a device that houses and cultivates algae. It provides an optimal environment for algae growth, supplying light, nutrients, CO₂ and a regulated temperature for the culture.

Co-Lead Project Directors

Dr. Stephen O'Leary,
NRC Institute for Marine Biosciences

Ed Hogan,
CanmetENERGY,
Natural Resources Canada

Participating National Research Council (NRC) Institutes

NRC Institute for Marine Biosciences

NRC Biotechnology Research Institute

NRC Plant Biotechnology Institute

NRC Institute for Aerospace Research

NRC Institute for Chemical Processes and Environmental Technologies

For more information:

Leah Knickle,
Project Manager

NBPalgabiofuels@nrc-cnrc.gc.ca