Algae Comes Ashore

This simple sample of vegetation packs a pragmatic punch in the production of biofuel.??

Although not a new concept, the use of algae as a feedstock for biofuel production continues to gain more acceptance, especially as crude oil costs escalate, pushing users and system designers towards the integration of ethanol and other biofuel. Combine this with its appeal as a carbon dioxide mitigation strategy, and it's easy to see why such a simple sample of vegetation is getting more and more attention.

Here are some facts that help make the use of algae, in either application, one of Chem.Info's top 10 technologies:

Although expensive (a one-acre algae production facility can cost more than \$1 million to construct), the process is relatively straightforward. Everything starts with a bunch of plastic bags that are usually stacked horizontally and hung vertically as high as the given space allows.

Algae are continuously pumped from a holding tank into a bag where they are exposed to sunlight. Before hitting the bag, the algae are pummeled with massive amounts of air, absorbing the carbon dioxide and releasing oxygen. This process allows for constant harvesting throughout the day. The algae's lipids, which contain the vegetable oil-like product being sought for biofuel production, are then filtered, and oil is extracted.

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