

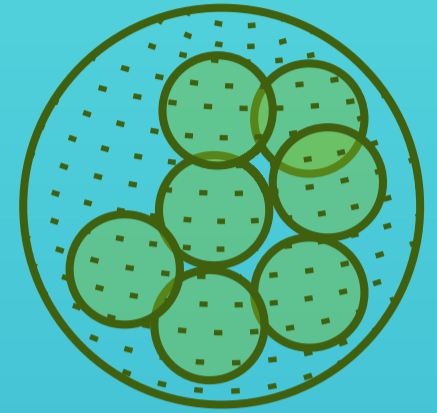
Algal Biodiesel

What's Beyond the Pond?



What is Algal Biodiesel?

Biodiesel is a renewable fuel that can be made from fats and oils, like algal oil. Algae is a relatively new feedstock for biodiesel, and has higher biomass and growth at high rates compared to terrestrial plants.



Algae Benefits

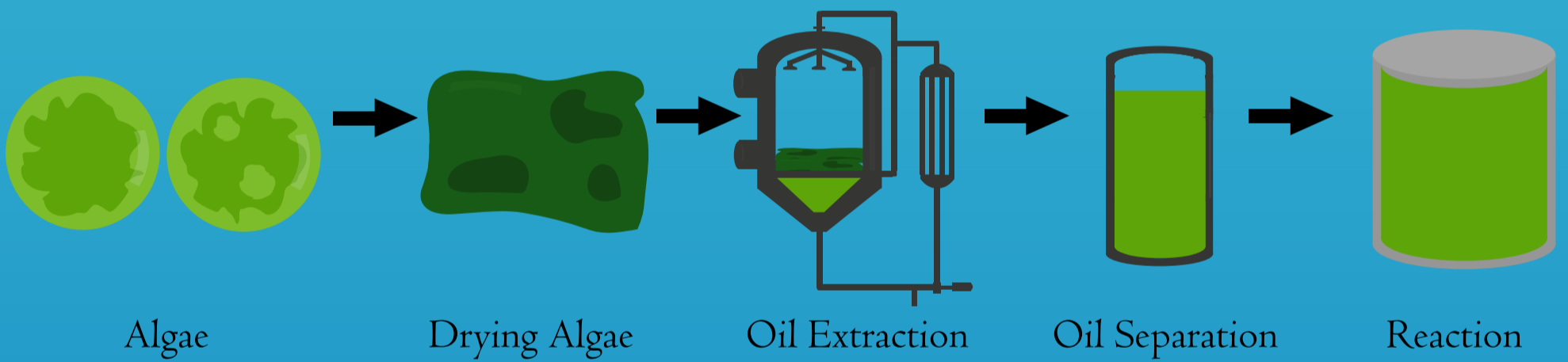
- Higher biomass than terrestrial plants
- Higher growth rates than terrestrial plants
- Ability to recycle nutrients from wastewater sources
- 1000 gallons of biodiesel can be produced/acre/year

Algae Drawbacks

- High production cost
- Difficulty in processing
- Presence of phospholipids

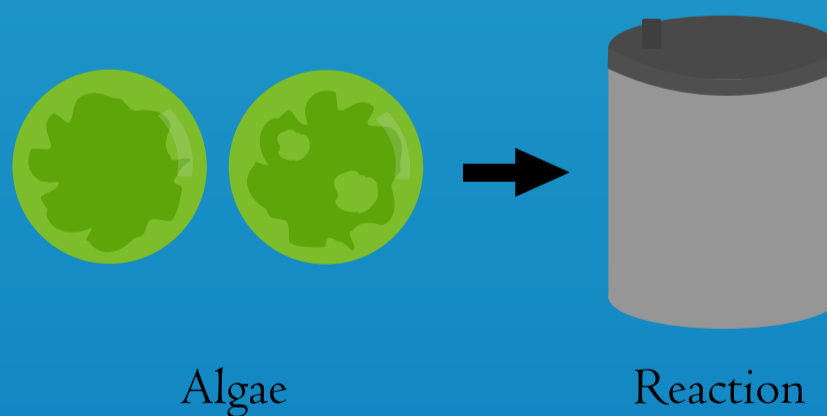
Normal Algal Biodiesel Processing

This is the process usually used for processing algae into biodiesel.



In-Situ Algal Biodiesel Processing

In-Situ uses elevated temperatures and methanol amounts to cut down processing steps.



Algae Superhero?

There have been some wildly exaggerated claims about algae's production potential. With more realistic assumptions, the limiting value for algae is likely to be 1,000-2,000 gallons/acre. So, reasonable production estimates for algae production are still 2-3 times higher than is achievable using terrestrial plants.