

Sustainable Fuel

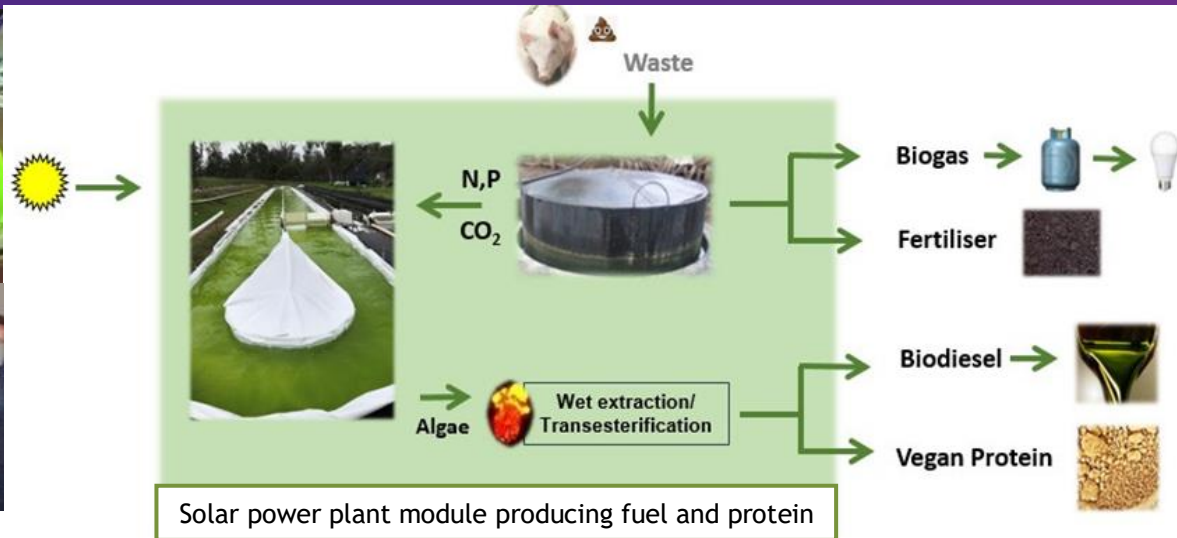


Microalgae cultivation for biofuel

A solar power plant for fuel

Schenklab Biofuel

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The Schenk Lab specialises in Algae Biotechnology and has developed disruptive technology that enables low-cost, large-scale microalgae cultivation, harvesting and processing. Microalgae are an easy to grow renewable source of fuel, feed and nutrition and can be farmed without competing for arable land or freshwater resources.

Sustainable biofuel production can be achieved by nutrient recycling, with air and water being the only inputs required for biofuel production. This carbon-neutral “solar power plant” produces fuel with CO₂ and water as the only inputs. To ensure high economic return on investment, high-value vegan protein will be co-produced. If protein and fuel are co-produced, an ROI of approx. 1 year is expected.

We have a vast portfolio of bioprocessing solutions available to address the unique challenges of aquatic crop growth, along with the expertise to guide through the knowledge transfer in order to achieve optimal crop productivity, sustainability and maximum return on investment.

Aspects of this portfolio include new, low-cost technologies to address infrastructure requirements, microalgae cultivar monitoring and water management.



Microalgae facts

- Biomass can double or triple in 1 day
- Microalgae cultivation does not need arable land
- Microalgae cultivation does not need freshwater
- All-year-round harvesting (2x weekly basis)
- 15 000 L of oil for biodiesel per ha per year
- 30 tons of protein-rich biomass per ha per year
- Fully sustainable and carbon-neutral technology due to nutrient recycling
- Can be coupled to wastewater clean-up and anaerobic digestion/biogas production e.g. from piggery

Interested Stakeholders

- University of Queensland - UQ Algae Energy Farm
- Councils - Waste reduction & regional jobs
- National Security - Stable, independent fuel supply
- Clean Technology companies - investment
- Early technology adopters - Spearheading sustainability
- Rural communities looking for independence and cost reduction

“At the Schenk Lab we are committed to addressing energy and food security. We aim to pioneer disruptive technologies that will unlock the potential for sustainable long-term energy and food solutions”