

The Great Biofuels Debate was held at ISAP2014 in Sydney.

A panel of experts with diverse fields of knowledge from aviation fuels, to energy sources and photosynthesis were presented with the question:

Citation:

Is there hope for a future of sustainable algal biofuels?

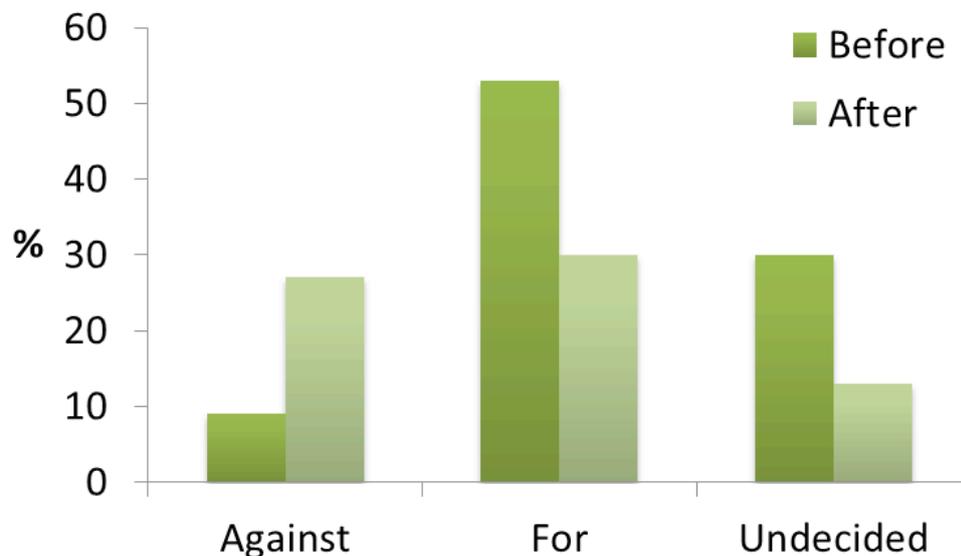
International Society for Applied Phycology

5th Congress of ISAP, 2014, Sydney, Australia

We are all aware that in theory algae grow much faster than land plants and could provide the much needed biofuels biomass without competing with food resources, however the challenge has been economic viability. The term biofuels represents the use of living biomass for the conversion of chemical energy into diesel or ethanol types. A plethora of Blue Sky promises and unfounded statements have tarnished the trust in the concept of algal biofuels for the future, and controversial funding as well as rejection of the technology has been rife in this last decade of seeking viable biofuels.

In this public forum, representatives that were sceptics, visionaries and maybe grounded viewpoints by some of the most respected and long term innovators in this field presented their views.

A poll was taken by the audience before and after the event and the results are presented here:



Speakers

	<p>Associate Professor John Benemann MicroBio Engineering Inc B.S. Chemistry and Ph.D. Biochemistry, University of California Berkeley. Postdoctoral work at U.C. San Diego, then Associate Researcher, Dept. Civil Engineering, U.C. Berkeley, and Associate Professor Dept. Applied Biology, Georgia Inst. of Technology. For past 25 years consultant, researcher, and Founder/CEO (2006 – present) of MicroBio Engineering, Inc., a wastewater and algal biofuels research- engineering company. Founding Director of the not-for-profit, Algal Biomass Organization (2008-present).</p>
	<p>Professor Michael Borowitzka Murdoch University Prof. Michael Borowitzka founded the ALGAE R&D CENTRE at Murdoch University. He was part of the team which led to what is now the largest commercial microalgae production plant in the world, the Dunaliella salina plant at Hutt lagoon, Western Australia. More recently, he led a project on the use of very halotolerant algae for the production of biofuels which constructed the first Australian algae biofuels pilot plant in Karratha. He is a consultant on several microalgae projects. He is Editor-in-Chief of the Journal of Applied Phycology and president of the International Phycological Society.</p>
	<p>Professor Paul G. Falkowski Rutgers University Professor Paul G. Falkowski is the Bennett Smith Professor in the Department of Earth and Planetary Science and the Business School at Rutgers University and is the Director of the Rutgers Energy Institute. His scientific interests include evolution of the Earth systems, paleoecology, photosynthesis, biophysics, biogeochemical cycles, and symbiosis. Professor Falkowski earned his B.S. and M.Sc. degrees from the City College of the City University of New York and his Ph.D. from the University of British Columbia.</p>
	<p>Prof. Kirsten Heimann James Cook University School of Marine & Tropical Biology Prof. Heimann initiated and built the AMCRC microalgal carbon capture and leads the methane bioremediation project at JCU. The biomass is used for commercial algal co-products. She has published in high ranking journals including Nature. Her research has won many awards, the NQ Corporate Business Women Award 2011 being the latest.</p>
	<p>Dr Deborah O'Connell CSIRO From 2006 to 2012, Dr. Deborah O'Connell led the CSIRO Energy Flagship's Sustainable Biomass Production team. She has recently worked closely with the World Economic Forum Global Agenda Council on Measuring Sustainability to lead a team in reviewing the last 25 years of sustainability theory and practise, and produce a guide to navigating this complex area of science and implementation. This builds on earlier work on sustainability frameworks as applied to the biomass, bioenergy and water domains. She has been influential in working with Australian industry and government to engage with developing an ISO standard (PC248) for sustainability of bioenergy. She has provided high level facilitation and coaching workshops to help empower developing nation delegates with negotiation and sustainability science skills.</p>
	<p>Professor Susan Pond The University of Sydney Dr. Susan Pond is Adjunct Professor in Sustainability at the United States Studies Centre at the University of Sydney (ussc.edu.au) and Chair of the Australian Initiative for Sustainable Aviation Fuels (AISAF; aisaf.org). AISAF is the strategic direction-setting group that is facilitating the growth of the sustainable aviation fuel industry in Australia.</p>