



Dr. Mark Edwards

It's Green, it's Slimy and it May Save the World

Author of the 2008 Science Book of the Year, Green Algae Strategy, Mark Edwards is an advocate of sustainable and affordable food, fuel, and medicines with carbon negative production that sequesters carbon for hundreds of years. Mark Edwards and his team are the first people on the planet to demonstrate carbon negative production of food, fuel, feed, fertilizers, and medicines in a field setting.

Mark shares how we can produce clean, carbon neutral and carbon negative products in an ecologically responsible manner while using no or minimal fossil fuel, freshwater, fertile soils, agricultural chemicals or poisons such as pesticides.

Mark invented Green Solar Energy Islands (GreenSei) that consume massive amounts of CO₂ and transforms the carbon into high-value products while releasing only pure oxygen into the atmosphere. GreenSei enables farmers, municipal waste plants and dumps to use their biowastes for recoverable energy rather than burning or burying them. Combustion gasses are trapped and the resulting CO₂ feeds algae and creates a host of valuable products while the hydrogen fuels a generator to create electricity. Algal oils are recovered to make clean diesel, gasoline and jet fuel. These fuels burn with no black soot particulates because they were not fossilized. The remaining protein is harvested for food, food ingredients, animal feed, organic fertilizer vaccines, and pharmaceuticals. Every gallon of green carbon negative fuel not only displaces a gallon of fossil fuels but also sequesters about 20% of the total carbon used for energy production as “biochar” in farmers’ fields. Biochar acts as a carbon sink while providing fields with slow release of organic fertilizer and improving soil richness, moisture retention as well as reducing erosion. GreenSei production not only stores carbon but also has a positive ecological footprint because no pollutants enter the ecological systems.

Mark Edwards leads the green path towards three freedoms: hunger, imported oil and the need to burn fossil fuels. Our world desperately needs a sustainable food supply in spite of climate chaos, soil degradation, pollution, and water scarcity. We need high quality, clean renewable fuels that sequester rather than release carbon. We need to recover, recycle, and reuse fossil nutrients and municipal, industrial, and agricultural waste streams. We need to eliminate the need to burn fossil fuels. While others talk about these needs, Mark has taken action and is producing sustainable, high value products while capturing and storing carbon.

Mark’s talks are engaging, humorous, informative and uplifting. Mark conveys his concern and green solutions for our hot, dry, and hungry planet with passion. He uses fascinating anecdotes that convey the science and practice of sustainable and affordable food and energy production. Mark speaks at international scientific conferences, business settings, food, and environmental groups. He has been a classroom teacher for over 30 years so he knows how to match the level of the audience.

The audience will learn:

- The tiny plant and save our planet not once but twice!
- The amazing nature of the plant that provides over 60% of the Earth's daily oxygen
- Why water-based plants produce food and biofuels at 50 times the rate of land-based plants
- The dual threats of peak oil and peak phosphorus on food and energy production
- How our waste streams are rich in recoverable and reusable nutrients and energy
- How Green Solar Energy Islands enable carbon negative production

- What you can do to save our planet with carbon negative production!

Mark has written four books on sustainable food, fuel and fine medicines, including:

- BioWar I: Why Battles over Food and Fuel lead to World Hunger
- Green Algae Strategy: End Oil Imports and Engineer Sustainable Food and Fuel
- Green Solar Gardens: Algae's Promise to end Hunger
- Crash! The Demise of fossil Foods and the Rise of Abundance

Mark has made his books available for free color PDF download with speaker notes at:
<http://GreenIndependence.org>.

ABOUT DR. MARK EDWARDS

Mark graduated from the United States Naval Academy with degrees in Mechanical Engineering, Oceanography, and Meteorology. Jacques Cousteau influenced both his early interests in oceanography and his passionate stewardship for our planet. He holds an MBA and a Ph.D. in Marketing and Consumer Psychology from Arizona State University and researches and consults on sustainable food and energy. Mark has served as professor strategic marketing and sustainability at Arizona State University for over 30 years and commonly receives among the top professor ratings in the Business School. His Green Algae Strategy positions algae for food and energy solutions and won the prestigious 2009 Independent Publisher Gold Medal for the “Best Science Book.”

Mark served as CEO of TEAMS Intl. for 22 years, the software and training firm he founded based on his research on advanced assessment technologies and talent and leadership assessment. Mark invented a host of advanced metrics including the 360° Feedback process, used globally for leadership assessment and development. He served as lead consultant for over 400 firms globally and was retained by many U.S. departments and the military, including DOE, DOD, the National Laboratories, and Special Forces.

Mark served as a director for a Fortune 50 transportation and foods company and has done extensive R&D on new foods, food sources, and consumer behavior. He has consulted for Monsanto, Pioneer Seeds, DuPont, Nabisco, Quaker Oats, General Mills, Borden, and many other agribusiness companies. Mark has worked with senior executives at 15 large oil and gas firms as well as British Petroleum and Saudi Aramco. He consulted for over a dozen power and water utilities, such as SRP, Duke Energy, PG&E and FP&L and GM, Ford, Rolls-Royce, Boeing, Westinghouse and GE.

He has published over 100 articles on advanced assessment and development technologies as well as several books, including a business bestseller, 360°Feedback, with Ann Ewen. He serves on several boards, including the Arizona Science Center, whose mission is to motivate students to learn and to pursue engaging careers in science and math.

PRESENTATIONS

- Carbon Negative Production of Sustainable Food and Energy in spite of Climate Chaos
- Green solar energy: sustainable food and energy solutions for a green planet
- Green Algae Strategy: Sustainable Food, Fuel, Freshwater and Fine Medicines
- Green Solar Gardens: Algae's Promise to end Hunger
- Crash! The Demise of fossil Foods and the Rise of Abundance
- Abundance: Sustainable Food and Energy with Climate Change