

**Science and Technology for Sustainability Program:  
Summary of Progress and Future Direction  
Biofuel Research Proposals Funded in 2010**

SAB Discussion, August 16, 2010

Dr. Alan D. Hecht  
Director for Sustainable Development  
Office of Research and Development

Title	Lead Contact
Assessing Ecological Impacts from feral biofuels crops and gene flow from biofuels crops on plant community ecosystem services	Watrud NHEERL
Augmented modeling of water quality, air quality and soil quality impacts of biofuels in the Midwest	Bruins/Smith NERL
Natural Gas, Nitrogen Fertilizer and N <sub>2</sub> O: Addressing Gaps in our Understanding of Biofuels Impacts on the Nitrogen Cascade	Dodder NRMRL
An integrated eco-hydrologic modeling and decision support framework for assessing effects of alternative biofuel feedstock production scenarios on multiple ecosystem services	McKane NHEERL
Issues Associated with Waste Glycerol Combustion for Biodiesel Production	Linak NRMRL
Environmental Consequences of Biomass Fast Pyrolysis for Biocrude Production	Lee NRMRL
Framework to Manage the Impact of Spills of Biofuels from Underground Storage Tanks on Ground Water Used for Municipal Water Supplies	Kremer NRMRL
Develop Protocols and Conduct Verifications to Understand How Various Biofuel Blends Influence the Performance of Leak Detection Devices for Underground Storage Tank Leak System	McKernan
Assessing and comparing the impacts of biofuel use in the transportation sector on air emissions, air quality, exposures, and adverse health effects	Baldauf / NRMRL Bushnell/ NHEERL
Effect of Biofuel Combustion Constituents on Cardiopulmonary Responses in Rodents and Human	Madden NHEERL
Assessing exposure impacts of photochemically-converted biodiesel exhausts.	Offenberg NERL
Design of Sustainable Biofuel Supply Chains	Smith NRMRL
Biofuels Report to Congress	Shaw NCEA
SBIR	NCER
Biofuels Workshop	Hecht IOAA