



Linking Biophysical and Economic Models of Biofuel Production and Environmental Impacts

November 13-14, 2008
Gleacher Center
Chicago, Illinois, USA

Organized by: Madhu Khanna (University of Illinois); Scott Swinton (Michigan State University); Atul Jain (University of Illinois); and R. César Izaurralde (Joint Global Change Research Institute, Pacific Northwest National Laboratory).

Sponsored by: Energy Biosciences Institute (EBI); Great Lakes Bioenergy Research Center (GLBRC); the Center for Advanced BioEnergy Research (CABER); and Cooperative State Research, Education, and Extension Service (CSREES), USDA.

Nov. 13, 2008

11 am Registration

11:30 – 1:30 Lunch

12:30 Welcome

Stephen Long, Deputy Director, EBI, University of Illinois
Scott Swinton, Resource Economist, Michigan State University
Frank Boteler, Deputy Administrator, Economic and Community Systems, CSREES, USDA

Speaker: Steve Long, Environmental Economist, EBI, University of Illinois
Food, Feed, and Fuel: Can We Have it All?

Keynote Speaker: Catherine Kling, Environmental Economist Iowa State University
Linking Biophysical and Economic Models for Environmental Policy Analysis: Methods, Challenges, and Missing Pieces

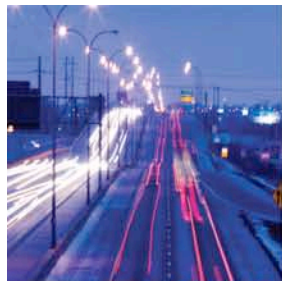
1:30 – 3:00 Biophysical Models of Yields of Bioenergy Crops

Biofuel Crop Yield Estimation: An Integrated Biogeochemical Cycle Modeling
Atul Jain, Atmospheric Scientist, University of Illinois

A Biophysical Model of Switchgrass Yields
Jim Kiniry, Agronomist, ARS, USDA

Discussant: Fernando Miguez, Crop Scientist, University of Illinois

3:00 – 3:30 Break





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3:30 – 5:00 pm Soil Carbon Modeling with Bioenergy Crops

*Developing a Model with Soil Carbon Processes for Carbon Sequestration:
Modeling Directly Measurable Pools*

Wilfred M. Post, Ecologist, Oakridge National Laboratory

Linking Economic Models to Ecosystem Models: Biofuel Examples

William Parton, Ecologist, Colorado State University

Discussant: Mark David, Biochemist, University of Illinois

6:00 Dinner

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8:00 – 8:30 Breakfast

8:30 – 10:00 Linking Yield Models with Economic Decision Making

Challenges of Integrating Biophysical Information into Agricultural Sector Models

Daniel De La Torre Ugarte, Economist, University of Tennessee

Land Use and GHG Implications of Meeting Biofuel Targets: Linking Biophysical and Economic Models

Madhu Khanna, Environmental Economist, University of Illinois

Discussant: Scott Swinton, Resource Economist, Michigan State University

10:00 – 10:30 Break

10:30 – 12:00 Water Quality and Biodiversity Impacts of Biofuel Crops

Water Quality and Biodiversity Impacts of Biofuel Crops

Cesar Izaurralde, Soil Scientist, University of Maryland



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10:30 – 12:00 Water Quality and Biodiversity Impacts of Biofuel Crops (cont'd)

Modeling the Effects of Landscape Change on the Ecosystem Service Value of Biological Pest Control

Wopke van der Werf, Quantitative Crop Ecologist, Wageningen University

Discussant: Douglas Landis, Entomologist, Michigan State University

12:00 – 1:30 Lunch

Keynote Speaker: David Zilberman, Environmental Economist, UC-Berkeley
Incorporating Science Into Economic Analysis

1:30 – 3:00 Modeling Land Use Implications of Biofuel Crops

Biofuels, Food Security, and Climate Change: Implications for Land Use Change

Guenther Fischer, Land Use Change and Agriculture Program, IIASA

Biofuel Consequences for European Wetland Species: Combining Bottom-up Biophysical Modeling and International Market Feedbacks

Uwe Schneider, Agricultural Economist, Hamburg University

Discussant: Andre Faaij, Environmental Scientist, Utrecht University

3:00 – 3:30 Break

3:30 – 5:00 Integrative Modeling Approaches

Linking Economic and Biophysical Models for Climate Change and Biofuel Analysis

Bruce McCarl, Agricultural Economist, Texas A&M University

Bioenergy Life-Cycle Assessment: Paradigm, Pitfalls, and Potential for Low-Carbon Fuels

Paul Meier, Director, Energy Institute, University of Wisconsin

Discussant: Catherine Kling, Environmental Economist, Iowa State University

5:00 pm Concluding Remarks by Organizers

