



UNIVERSITY OF MINNESOTA
Driven to DiscoverSM

Growing the Bioeconomy: Solutions for Sustainability

December 1 and 2, 2009

Hosted by University of Minnesota Extension and the University of Minnesota Initiative for Renewable Energy and the Environment

DAY TWO SCHEDULE Wednesday, December 2: Opportunities for Minnesota

7:30 a.m. **Registration** | *Entire program is in room 135AC*

8:30 a.m. **Welcome and opening remarks**

Bev Durgan, Dean, University of Minnesota Extension

Greg Cuomo, Associate Dean for Extension, College of Food, Agricultural and Natural Resource Sciences,
University of Minnesota

Feedstocks, Processing and Conversion Technologies

8:45 a.m. **Biorenewable Feedstocks of Minnesota**

Keith Butcher, formerly with Center for Energy and the Environment

9:15 a.m. **Four Conversion Technologies**

Densification: Vance Morey, University of Minnesota Bioproducts and Biosystems Engineering

Gasification: Cecil Massie, 6Solutions LLC

Biomass to Gasoline: Ken Valentas, University of Minnesota Biotechnology Institute

Pyrolysis: Roger Ruan, University of Minnesota Bioproducts and Biosystems Engineering

10:45 a.m. **Break**

11:00 a.m. **Waste Streams and Anaerobic Digestion**

Patrick Hirl, Stanley Consultants

11:45 a.m. **Lunch** *please only go through the lunch line once and get on line by 12:30 p.m.--thank you!*



UNIVERSITY OF MINNESOTA
Driven to DiscoverSM

Growing the Bioeconomy: Solutions for Sustainability

December 1 and 2, 2009

Hosted by University of Minnesota Extension and the University of Minnesota Initiative for Renewable Energy and the Environment

Next steps

12:45 p.m. **Review of Process and Conclusions of White Earth Project**
Ken Valentas, Associate Director, University of Minnesota Biotechnology Institute

Community and business examples

1:15 p.m. **Two Examples of Biomass Utilization for Energy in Business**
Corn cob harvest and gasification for process heat:
Andrew Zurn, Plant Engineer, Chippewa Valley Ethanol Company

Co-firing Biomass with Coal: Great River Energy's Spiritwood Project:
Lola Schoenrich, Great Plains Institute

2:30 p.m. **Break** *note: beverage service ends at 3:30 p.m.*

2:45 p.m. **Looking Ahead to Additional Technologies and Business Concepts**
Rod Larkins, Associate Director, Initiative for Renewable Energy and the Environment,
University of Minnesota

3:15 p.m. **Wrap up**
Doug Tiffany, renewable energy economist, University of Minnesota Extension

3:30 p.m. **Adjourn** *Please complete your evaluation form.*

THANK YOU FOR ATTENDING!

Presentations will be available at extension.umn.edu/biorenewables.

Discover more about the University of Minnesota's work on renewable energy at environment.umn.edu/iree and www.extension.umn.edu/go/1013.