

NARA

Northwest Advanced Renewables Alliance



nararenewables.org/2014conference

APRIL 28 – 30, 2014
RED LION HOTEL FIFTH AVENUE
SEATTLE, WASHINGTON



Photo Credit: Gevo Hydrocarbon Demonstration Facility, Silsbee, Texas, USA.
Reproduced with permission of Gevo, Inc.

NORTHWEST WOOD-BASED **BIOFUELS + CO-PRODUCTS** CONFERENCE

Sponsored by



United States
Department of
Agriculture



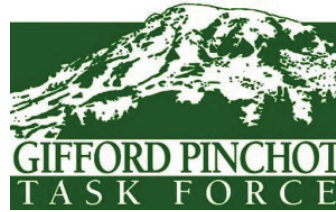
WASHINGTON STATE UNIVERSITY
EXTENSION



Collaborators



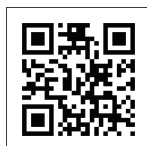
Northwest Advanced Renewables Alliance



Oregon Wood Innovation Center
Connecting people, ideas, resources



American Science and Technology



Media Partner



NARA Online Resources

Access a wide range of information, data, and tools provided by the Northwest Advanced Renewables Alliance at www.nararenewables.org.

NARA is led by Washington State University and supported by the Agriculture and Food Research Initiative Competitive Grant no. 2011-68005-30416 from the USDA National Institute of Food and Agriculture.

NARA Monthly Newsletter
www.nararenewables.org/news/newsletter/

NARA Blog
www.nararenewables.org/blog/

NARA Education Resources
www.energyliteracyprinciples.org

Stakeholder Signup
www.nararenewables.org/content/article/47/

NARA Cumulative Report
www.nararenewables.org/2013-report/



NORTHWEST WOOD-BASED
BIOFUELS + CO-PRODUCTS
CONFERENCE

A Look at the Big Picture | APRIL 28, 2014

Keynote | 1:00 to 3:15 pm

SEATTLE BALLROOM 3

MODERATOR: Michael Wolcott, Regents Professor | Washington State University Department of Civil & Environmental Engineering

1:10 to 1:35 pm

The Renewable Green Fuel | How Wood-based Biofuels Can Improve Forest Health, Reduce Wildfire Risk, and Strengthen the Economy in Washington State

Peter Goldmark, Commissioner of Public Lands | Washington Department of Natural Resources

1:35 to 2:00 pm

USDA Rural Development's Vision Regarding Economic Development Through Utilization of Woody Biomass and Opportunities Within USDA Rural Development for Bioenergy and Biofuel Businesses

Chris Cassidy, Energy Branch Chief | USDA Rural Development

2:00 to 2:25 pm

Biomass: Neither Automatically Good Nor Automatically Bad... It All Depends

Barbara Bramble, Chair, Board of Directors, Roundtable on Sustainable Biomaterials and Senior Advisor, International Climate and Energy Program | National Wildlife Federation

2:25 to 2:50 pm

The Importance of Sustainable Aviation Fuels | An Airline's Perspective?

Dean DuVall, Managing Director, Station Operations Support, Regulatory Compliance & Fuel Administration | Alaska Airlines

2:50 to 3:15 pm

Aviation | A Motivated and Committed Market for Sustainable Fuels

Michael Lakeman, Regional Director, Biofuel Strategy | Boeing Commercial Airplanes

3:15 to 3:30 pm

Break

Notes

APRIL 28, 2014 | **A Look at the Big Picture**

Regional Wood-to-Biofuels Research | 3:30 to 5:30 pm

SEATTLE BALLROOM 3

MODERATOR: Peter Moulton, Bioenergy Coordinator | Washington Department of Commerce

3:30 to 3:50 pm

Market Outlook for Forest Based Bioproducts

Ian de La Roche, Adjunct Professor | University of British Columbia

3:50 to 4:10 pm

A Biojet Roadmap for Canada | Enabling Policy to Create a Viable Biojet Supply Chain

Fred Ghatala, Partner | Waterfall Group

4:10 to 4:30 pm

The Bioenergy Alliance Network of the Rockies (BANR)

Keith Paustian, Professor | Colorado State University

4:30 to 4:50 pm

Advanced Hardwood Biofuels (AHB) Northwest

Kevin Zobrist, Regional Extension Specialist | Washington State University

4:50 to 5:10 pm

Northwest Advanced Renewables Alliance (NARA)

Michael Wolcott, Regents Professor | Washington State University

5:10 to 5:30 pm

Session Q & A

Notes

Parallel Tracks | APRIL 29, 2014

Morning Session | 8:00 am to 12:00 pm

	Track 1 Acquiring, Processing, and Transporting of Woody Biomass for Biofuels and Co-Products SEATTLE BALLROOM 3	Track 2 Economic, Social and Environmental Issues Surrounding Woody Biomass Utilization for Biofuels and Co-Products PIONEER	Track 3 Pretreatment and Conversion for Biofuels and Co-Products BELLTOWN
8:00 to 8:20 am	Overview of Characterizing Approaches to Collecting Forest Biomass Han-Sup Han, Professor Humboldt State University	Concerns and Considerations of the Environmental Community Regarding Biomass and Biofuels Bob Dingethal, Executive Director Gifford Pinchot Task Force	Optimization of Mild Bisulfite Pretreatment on Pacific Northwest Softwood Johnway Gao, Senior Scientist Catchlight Energy
8:20 to 8:40 am	Forest Slash Gathering on Olympic Peninsula A Contractor's Perspective Bill Hermann, Owner Hermann Brothers Logging	Climate-Related Risks for Western Forests Philip Mote, Professor Oregon State University	Converting Through Thermo-chemical Process Rick Tallman, Managing Director Ensyn Corporation
8:40 to 9:00 am	Biomass Collection and Processing A Southern U.S. Perspective René van der Merwe, President Forestry Equipment Company	Perceived Impacts of a Sustainable Cellulosic Biofuels System for the Pacific Northwest: Facilitating Social Feasibility Stanley T. Asah, Assistant Professor University of Washington	Reach Technology for Biomass Conversion to Drop-in Hydrocarbon Jet Fuel and Diesel Karl Seck, President Mercurius Biofuels
9:00 to 9:20 am	Biomass Supply Cost Improvements Through Least Cost Formulation Christopher Wright, Senior Scientist Idaho National Laboratory	Restoring Rural Communities Through Biomass Utilization Lynn Jungwirth, Senior Fellow for Policy and Development The Watershed Research and Training Center	Conversion of Douglas-fir Biomass into Isobutanol and Biojet Grant Balzer, Scientist Gevo Inc.
9:20 to 9:40 am	Session Q & A		
9:40 to 10:10 am	Break		

	Track 1	Track 2	Track 3
10:10 to 10:30 am	<p>Poplar Tree Improvement for Biomass Production in the PNW</p> <p>Carlos Gantz, Managing Director Greenwood Resources</p>	<p>Forested Counties Effects of National Forest Policies on Forested Communities' Viability</p> <p>Paul Spencer, Partner Wind River Biomass Utility LLC</p>	<p>Pretreatment as the Starting Point for Producing Aviation Biofuels with Focus on the Advanced Wet Explosion (AWEx) Process</p> <p>Birgitte Ahring, Battelle Distinguished Professor Washington State University</p>
10:30 to 10:50 am	<p>Swedish Biomass Equipment, Harvest Operations and Markets</p> <p>Peter Nyström, Head of Fuel Department Ena Energi AB, Enköping, Sweden</p>	<p>Montana Economic Development Tools Bringing Biofuel and Biomass Development to Montana</p> <p>Tracy D. McIntyre, Executive Director Eureka Rural Development Partners</p>	<p>Ash Reduction Strategies to Provide On-Spec Feedstocks for Biofuel Conversion Processes</p> <p>David Thompson, Distinguished Senior Scientist Idaho National Laboratory</p>
10:50 to 11:10 am	<p>Emerging Technologies to Improve Preparation of Woody Biomass for Pretreatment and Conversion</p> <p>James Dooley, Chief Technology Officer Forest Concepts</p>	<p>Modeling Poplar Growth as a Short Rotation Woody Crop for Biofuels in the Pacific Northwest</p> <p>Quinn Hart, Programmer University of California Davis</p>	<p>Cellulosic Center and Economics of Lignocellulosic Biomass Conversion</p> <p>Ali Manesh, CEO American Science and Technology Corporation</p>
11:10 to 11:30 am	<p>Building a Sustainable Biomass Supply Chain to Fit Your Facility Ongoing Lessons and Experiences</p> <p>Paul McKenzie, Lands & Resource Manager F.H. Stoltze Land and Lumber</p>	<p>Social Acceptability of Biomass and Biofuels</p> <p>Jillian Moroney, Research Assistant University of Idaho</p>	<p>Pyrolysis of Lignocellulosic Materials for the Production of Bio-Fuels, Bio-Chemicals and Bio-Char</p> <p>Manuel Garcia-Perez, Associate Professor Washington State University</p>
11:30 to 11:50 am	<p>Biomass Supply Agreements from a Purchaser's Perspective</p> <p>Kevin Tuers, Fuel Procurement Seneca Sustainable Energy</p>	<p>Education at the Speed of Research Bio-Energy Literacy</p> <p>Justin Hougham, Assistant Professor University of Wisconsin</p>	<p>Liquefaction Technologies Producing Biocrude for Gasoline, Diesel and Jet Fuel</p> <p>John Holladay, Manager, Biomass Sector Pacific Northwest National Laboratory</p>
11:50 am to 12:00 pm	Session Q & A		
12:00 to 1:15 pm	Lunch		SEATTLE BALLROOM 1 & 2

Supply Chain Analysis | APRIL 29, 2014

Afternoon Session | 1:15 to 5:00 pm

SEATTLE BALLROOM 3

MODERATOR: Matt Krumenauer, Senior Policy Analyst | Oregon Department of Energy

1:15 to 1:35 pm **Identifying Suitable Sites for Wood-Based Biofuels Facilities in Western Oregon and Washington**
Tammi Laninga, Assistant Professor and Director of Bioregional Planning Program | University of Idaho

1:35 to 2:05 pm **Modeling the Biomass Supply Chain**
Darius Adams, Professor Emeritus | Oregon State University

2:05 to 2:35 pm **Economic Impacts of Preparation of Softwood Forest Residuals as Feedstocks for Biofuel Production**
Gevan Marrs, Senior Research Scientist | Weyerhaeuser

2:35 to 2:55 pm **Environmental Assessments of Woody Biomass Feedstock for Bio-Jet Fuel Production**
Indroneil Ganguly, Research Assistant Professor | University of Washington

2:55 to 3:10 pm **Session Q & A**

3:10 to 3:40 pm Break

MODERATOR: Shiba Kar, Regional Extension Specialist, Advanced Hardwood Biofuels Northwest | Washington State University

3:40 to 4:00 pm **Agricultural Solutions for Forestry Problems**
Bruce Summers, Harvesting and Product Sales Manager | Greenwood Forest Resources

4:00 to 4:20 pm **Poplar Plantation Management for Biomass Production in the PNW**
Jose Zerpa, Silvicultural Researcher | Greenwood Forest Resources

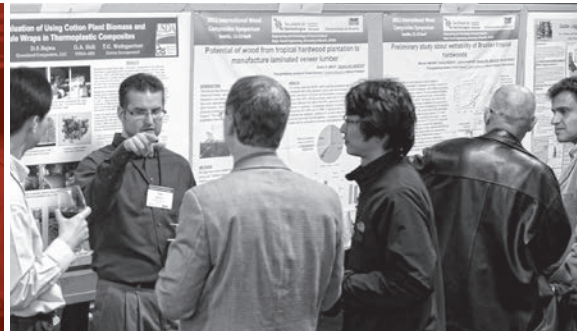
4:20 to 4:40 pm **Can Short Rotation Hybrid Poplar Be a Promising Sustainable Energy Supply Source in Pacific Northwest Region?**
Varaprasad Bandaru, Project Scientist | University of California Davis

5:10 to 5:30 pm **Session Q & A**

5:00 to 7:00 pm Networking Reception and Poster Session
SEATTLE BALLROOM 1 & 2

Join with colleagues for an evening of networking and interacting with poster presenters.

Reception will feature a no-host bar and complimentary hors d'oeuvres.



www.nararenewables.org/2014conference

5

APRIL 30, 2014 | Value-Added Co-Products Across the Supply Chain

Co-Products Session | 8:00 am to 12:00 pm

SEATTLE BALLROOM 3

MODERATOR: Thomas Spink, President | Thomas Spink International

8:00 to 8:30 am

An Overview of Wood Based Lignin Co-Products

Thomas Spink, President | Thomas Spink International

8:30 to 9:00 am

Effect of Different Biomass Pretreatments and Processing Parameters on the Properties and Performance of NARA Lignin-Derived Activated Carbons

Ian Dallmeyer, Scientist | Weyerhaeuser

9:00 to 9:30 am

Analyzing Changes in Lignin Chemistry Due to Biofuel Production Process

Carter Fox, Scientist | Weyerhaeuser

9:30 to 10:00 am

Break

10:00 to 10:30 am

BALI™ Commercialization

Jerry Gargulak, Business Development Manager | Borregaard LignoTech USA

10:30 to 11:00 am

Extractives to Co-Products

James Stephens, President & Chief Scientific Officer | Blue Marble Biomaterials

11:00 to 11:30 am

Characterization of Residual Streams and Value-Added Markets

Robert Buchan, VP Government Relations, Marketing, Communications | Cosmo Specialty Fibers

11:30 am to 12:00 pm

Low Cost, Bio-Renewable Precursor Fibers from Lignin/Poly lactide (PLA) Blends and Graft Copolymers for Carbon Fiber Production

Mike Kessler, Professor and Director of School of Mechanical and Materials Engineering | Washington State University

12:00 pm

Conference Adjourns

Conference Steering Committee

Bob Dingethal | Gifford Pinchot Task Force

Matt Krumenauer | Oregon Department of Energy

Scott Leavengood | Oregon State University

Eini Lowell | United States Forest Service

Peter Moulton | Washington State Department of Commerce

Scott Stanners | BC Bioenergy Network

Charles Burke | Washington State University

Karl Englund | Washington State University

Shiba Kar | Washington State University

Vikram Yadama | Washington State University