

International Wood Composites Symposium 2012

Managing the Woody Biomass Supply Chain

**Seattle, Washington, USA
11-13 April 2012**

Editors:

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Karl Englund**

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Program Agenda

Day 1: Wednesday, April 11, 2012 Red Lion on Fifth Avenue Seattle, Washington	
Opens 6:45 am	Symposium Check-in/Registration in Emerald Ballroom Foyer
7:00 am–8:00 am	Continental Breakfast
PLENARY SESSION: <i>Future Demands for Woody Biomass</i> Emerald I	
8:00 am	Vikram Yadama and Robert Tichy Symposium Committee Co-Chairs Washington State University <i>Welcome</i>
	Moderator: Robert Tichy, Washington State University
8:10 am	KEYNOTE SPEAKER: Mike Jostrom, Director of Renewable Resources Plum Creek Timber Company <i>Resolving feedstock conflicts between traditional and emerging industries</i>
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8:40 am	Laurel Harmon, Vice President–Government Relations LanzaTech Inc. <i>International policy development for biofuels and bioenergy industries</i>
	7
9:10 am	Dwight Anderson, Bioconversion Lead Catchlight Energy, LLC <i>Value chain development in the emerging biofuel industry</i>
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9:40 am	Break
10:00 am	Jamie Barbour, Program Manager, Focused Science Delivery and Goods, Services, and Values Programs USDA Forest Service, PNW Research Station <i>Opportunities from Forest Service biomass policy and management approaches</i>
	29
10:30 am	Bruce Lippke, Professor Emeritus University of Washington College of Environment <i>Environmental impacts and policy conflicts between biofuels and engineered wood products</i>
	38
11:00 am	Christopher Wright, Manager Idaho National Laboratory Biofuels & Renewable Energy Technologies <i>Expanding our thinking of woody feedstock supply systems for bioenergy production</i>
	49
11:30 am	Michael Wolcott, Professor; Director, Institute for Sustainable Design Washington State University <i>A supply chain to aviation biofuels and environmentally preferred products</i>
	59
12:00–1:00 pm	Lunch Emerald III

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Wednesday, April 11, 2012
continued

	CONCURRENT SESSION Biofuels and Bioenergy: New Products, Markets, and Processes <i>Emerald II</i>	CONCURRENT SESSION Composites: New Products, Markets, and Processes <i>Emerald I</i>
	Moderator: Lincoln Ferris, NewWood Manufacturing	Moderator: Chris Leffel, Trinity Innovations Inc.
1:00 pm	David Sjoding, Energy Program Coordinator Washington State University Energy Program <i>Bioenergy policies</i> 71	Geoff Rhodes, President Geoff Rhodes Associates, United Kingdom <i>Learning and innovation go hand-in-hand</i> 137
1:30 pm	Tom Miles, President T.R. Miles Technical Consultants <i>Securing and handling biomass feedstocks</i> 84	William Mitchell, Vice President The Beck Group <i>Lessons learned from benchmarking studies of composite industries</i> 153
2:00 pm	John Crouch, Director of Public Affairs Pellet Fuels Institute and HPBA <i>Biomass supply and markets for the pellet fuel industry</i> 94	John Bowser, President/CEO NewWood Manufacturing <i>Securing a reliable, long-term supply of recycled biomass for manufacturing: A case study of New-Wood Manufacturing</i> 173
2:30 pm	Break	
3:00 pm	Michael Rushton, COO Lignol Innovations Inc., Canada <i>Lignol's flexible biorefinery technology</i> 103	Karl Englund, Asst. Research Professor Washington State University <i>Pyrolytic Lignins as a Thermoplastic Resin for Wood Composites</i> 183
3:30 pm	Christian Roy, President Pyrovac Inc., Canada <i>What future for biomass pyrolysis?</i> 113	Patrick Govang, President and CEO e2e Materials <i>Re-thinking the commodity supply model to create sustainable value</i> 196
4:00 pm	Rachael Jamison, Energy/Climate Policy Specialist Washington State Dept. of Natural Resources <i>Ensuring sustainability in the emerging forest biomass market: DNR's proactive approach</i> 129	Mathias Fischer, Sales Director GreCon, Germany <i>Preventive fire and explosion protection with effective spark detection and extinguishment</i> 205
4:30 pm–6:30 pm	Technical Forum Poster Session Browse through poster displays and talk with vendors Reception during Technical Forum <i>Complimentary wine and beer, hearty hors d'oeuvres</i> Emerald I and Emerald III	

2012 Symposium Organizing Committee

Vikram Yadama, Washington State University

Robert Tichy, Washington State University

Karl Englund, Washington State University

Randy Brooks, University of Idaho

Scott Leavengood, Oregon State University

Craig Rawlings, Forest Business Network

Eini Lowell, USDA Forest Service, PNW Research Station

Day 2: Thursday, April 12, 2012 Red Lion on Fifth Avenue Seattle, Washington	
Opens 6:45 am	Symposium Check-in/Registration in Emerald Ballroom Foyer
7:00 am–8:00 am	Continental Breakfast
PLENARY SESSION: <i>Redefining Your Biomass Supply</i> Emerald I	
	Moderator: Vikram Yadama, Washington State University
8:00 am	William Mitchell, Vice President The Beck Group <i>Fiber supply for bioenergy (co-gen)</i> 229
8:30 am	Bruce Summers, Harvesting and Product Sales Manager GreenWood Resources, Inc. <i>Hybrid poplar: A tree for all reasons</i> 245
9:00 am	Terry Gillis, General Manager Recovery 1 <i>Accessing wood in our municipal solid waste streams</i> 278
9:30 am	Jim Dooley, CTO Forest Concepts LLC <i>Beneficiation of chipped and shredded woody biomass</i> 293
10:00 am	Break
10:30 am	Donald Bisson, Vice President, Product Acceptance Composite Panel Association <i>The Federal biomass debate and the importance of wood products manufacturing to the US economy</i> 304
10:50 am	PANEL DISCUSSION: <i>Biomass logistics and utilization</i> Bill Hermann, CEO Hermann Brothers Logging and Construction <i>Woody biomass harvesting and transportation</i> 318 Han-Sup Han, Professor Humboldt State University <i>Collection and transportation of forest residuals for energy production</i> 337 Ed Tolan, Purchasing Executive Nippon Paper Industries <i>Biomass utilization for bioenergy</i> 348
12:00–1:00 pm	Lunch Emerald III

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	CONCURRENT SESSION Biofuels and Bioenergy: Pretreatment and Conversion Strategies <i>Emerald II</i>	CONCURRENT SESSION Composites: Advances in Technology <i>Emerald I</i>
	Moderator: Linda Beltz, Weyerhaeuser	Moderator: Karl Englund, Washington State University
1:00 pm	Tom Amidon, Professor & Director of ESPRI SUNY-ESF <i>Autocatalytic pretreatment of woody biomass for extraction of hemicelluloses for biofuels and biopolymers</i> 355	Tomas Joscak, CEO Dascanova GmbH, Austria <i>Three-dimensional rearrangement of the wood- based panel density in one press process</i> 467
1:30 pm	Joel Howard, CEO Applied Biorefinery Sciences LLC <i>Economic advantages of ABS Process™ Biorefinery Technology for wood fuel pellets and composites: Answers and questions</i> 370	David Harmon, Lab & NA Wood Fiber Technical Manager Momentive Specialty Chemicals Inc. <i>Low formaldehyde emission challenges in composite wood products</i> 474
2:00 pm	Tom Elder, Research Technologist USDA Forest Service, Southern Research Station <i>Gasification of woody biomass as a route to energy and fuels</i> 399	Tony Ferrante, Sales and Service Manager Columbia Forest Products <i>Commercialization of a new protein-based adhesive system</i> 481
2:30 pm	Break	
3:00 pm	Vicky Putsche, Sr. Process Engineer Gevo, Inc. 420 <i>Biobutanol: Fueling the next generation biorefinery</i>	Michael Rushton, COO Lignol Innovations Inc., Canada <i>Use of HP-L™ Lignin as an ingredient in wood composite adhesives</i> 490
3:30 pm	Richard Berry, VP and Chief Technology Officer CelluForce, Inc., Canada <i>Nanocrystalline cellulose (NCC) from wood for high-value downstream products</i> 436	Ray Roberts, Consultant Physicist RJ Roberts Consulting, Australia <i>Core blending efficiency improvements achieved in continuous pressing of particleboard</i> 499
4:00 pm	Muhammad Moniruzzaman, Asst. Professor Dept. of Material and Energy Science Okayama University, Japan <i>Ionic liquids in pretreatment of woody biomass: An efficient approach for cellulose separation</i> 452	Ning Yan, Associate Professor University of Toronto, Canada <i>Bark biorefinery: Conversion of bark residue to bark-based PF adhesives and PU foams</i> 535