



29 October 2015



SENT TO LSU AGCENTER/LOUISIANA FOREST PRODUCTS DEVELOPMENT CENTER - FOREST SECTOR / FORESTY PRODUCTS INTEREST GROUP

As part of the October 21st National Bioenergy Day, a bioenergy conference was held by the LSU AgCenter

BATON ROUGE, October 21, 2015– With several success stories to tell, Louisiana is poised to become a major player in the bioproducts industry. Successful bioproduct ventures in the state include Myriant in Lake Providence. Myriant uses sugars to develop bio-succinic acid. It opened its flagship facility in Lake Providence in December 2010. During a bio-energy conference held by the LSU AgCenter on Wednesday, Mark Shmorhun, vice president of engineering and general manager for the Lake Providence facility, said a lot of “great” things are happening right now. “It’s been a slow process, but we’re seeing success with our product,” Shmorhun said. “Not all chemicals are created equal and the succinic acid we’re creating is bio-based, therefore, it is environmentally-friendly.” Succinic acid is used to make a broad range of products people use every day, including polyurethanes, paints and coatings, adhesives, sealants, artificial leathers, food and flavor additives, cosmetics and personal care products, biodegradable plastics, nylons, industrial lubricants, phthalate-free plasticizers, dyes and pigments, as well as in pharmaceutical compounds.

Cool Planet Energy Systems in Alexandria is another Louisiana bioproduct success story. Mike Bukowski, vice president of operations for the Alexandria site, said his company’s focus is to, “Change the world for good.” Cool Planet is a renewable energy and agricultural technology company that converts biomass into both hydrocarbon fuels and chemicals. One of its products, CoolTerra, is a water and fertilizer-saving soil amendment that sequesters carbon, as well as offers other benefits to drought-stricken agricultural regions. “The way CoolTerra works is that it acts as a virtual sponge to retain water and nutrients at the roots,” Bukowski said. “With reductions in water or fertilizer, CoolTerra maintains or improves total production levels. It also sequesters carbon from the atmosphere. This helps reverse climate change by taking CO² captured by plants and storing it in the soil. The Cool Terra process is carbon negative.”

NFR BioEnergy is a third successful Louisiana bioproduct business. Richard Buhr, chief marketing officer and vice president of business development for the company, said the biorefinery being built in White Castle is slated to begin production in July. The White Castle location will be used to create pellets from sugarcane waste for coal-fired plants.

“The sugarcane pellets are similar to coal, but the sugarcane pellets do not contain the harmful gases that coal does,” Buhr said. “Our product presents an alternative to switching over to natural gas or plants to have to install new, very expensive equipment because our material co-fires readily with no retrofitting of current infrastructure.”

Other speakers for the conference included Melanie Verzwyvelt of the Louisiana Public Service Commission, who spoke about the Commission’s Renewable Energy Pilot Program. This program was established in 2010 to determine if a renewable portfolio standard was suitable for Louisiana. “Louisiana has several companies that are seeing savings by participating in alternative energy programs,” Verzwyvelt said.



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Wood energy is one alternative energy feedstock that can help both the economy and the environment. Mike Jostrom, director of renewable resources for Plum Creek Timber Company, said using wood is good for energy, as well as rural communities. "Trees that are used to produce energy have to be cut down," Jostrom said. "This keeps loggers in business which, in turn, keeps other members of rural communities working."

Michael Hudson, fiber supply manager for International Paper in Bogalusa, agreed. "Wood is an excellent renewable source of energy," Hudson said. "Louisiana has an abundant supply of wood to use for biomass."

Drax Biomass is one Louisiana company that manufactures wood pellets to use for renewable low-carbon power generation. Richard Peberdy, vice president of sustainability for Drax, said his company is seeing great environmental benefits from the use of their wood pellets. "We're reducing the use of coal and we're increasing the use of biomass," he said. "By doing this, we're making significant greenhouse savings."

Drax Biomass has a facility located in the Port of Greater Baton Rouge, as well as facilities located in Amite and Bastrop.

Dan Len, regional biomass coordinator for the United States Department of Agriculture Forest Service southern region, agreed wood used to make energy is a wise choice.

"Historically, wood to energy was the use of mill residues to produce heat and some electricity," Len said. "Combining heat and power is economically favorable and it makes sense. Louisiana has the feedstock needed to make wood pellets and there is a market for this type of energy. We just have to use it."

Les Groom, also with the USDA Forest Service southern region, talked about how his team is using woody biomass to make synthetic gas. If successful, this will place a demand on wood fiber not seen since the pulp and paper boom in the 1980's and 1990's, he said. "Determining the most efficacious and sustainable manner of using renewable woody resources is critical," he said.

Richard Sharp of Cleco Power talked about a series of plants his company owns called the Brame Energy Center. This series of plants sits on 6,000 acres and uses man-made Rodemacher Lake as a cooling source for the plant's generating units. The lake covers about half of the site. "We have three units at the Brame site," Sharp said. "Madison Unit 3 is the largest generating unit. It was completed in 2010 and is among the cleanest solid-fuel units of its kind in the nation." The unit is key to Cleco Power's strategy to be self-sufficient in its power supply and increase fuel flexibility, Sharp said. It can use multiple solid fuels including biomass, coal and petroleum coke, a byproduct of the oil refining industry, to generate up to 641 net megawatts. The plant uses circulating fluidized-bed technology.

Louisiana is set to attract more companies such as the bioproducts industries listed here. Russell Richardson, business director of the Baton Rouge Area Chamber of Commerce, said "Louisiana offers one of the most competitive business climates." An ideal environment for bioenergy also includes sustainability. Charles Reith, a professor of natural and environmental sciences and sustainability

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director at the American University of Nigeria, said sustainability is important for bioenergy programs to succeed. “A promise was made that biomass energy would be the dominant source of power and heat in select geographies and socioeconomic settings,” Reith said. “Bioenergy initiatives will prevail or persist only if targeted toward these predisposed geographies and if intrinsically committed to sustainability.”

Based on the current status of the bioenergy industry in Louisiana, it is possible the state's agricultural producers could benefit by becoming a part of this growing trend, said John Russin, AgCenter vice chancellor and principal investigator for the Sustainable Bioproducts Initiative. “In the future, the bioenergy industry may give producers another outlet from which to make money in addition to selling their crops for food,” Russin said. “We encourage producers to learn all they can about this industry and how they can benefit from growing crops to use as feedstock.”

Rich Vlosky, conference coordinator and director of the LSU AgCenter Forest Products Development Center, agreed. “There is a lot of focus right now on bioenergy globally, particularly in the wood sector,” Vlosky said. “We want to ensure Louisiana producers are aware of what is happening in this industry.”

Dr. Bill Richardson, LSU vice president for agriculture and dean of the college of agriculture, said the LSU AgCenter has researchers and agents dedicated to helping Louisiana residents understand the bioenergy industry.

“The LSU AgCenter’s mission is to provide the people of Louisiana with research-based educational information,” Richardson said. “AgCenter researchers are involved in several projects related to biofuels and bioproducts.”





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Back Row, left to right: **Richard Peberdy**, Vice President, Sustainability for Drax Biomass, Drax Biomass International, **Les Groom**, Project Leader, USDA Forest Service, Southern Research Station, **Mike Bukowski**, Vice-President, Operations, Cool Planet, **Dr. Mark Shmorhun**, Vice President Engineering and General Manager, Myriant Corporation, **Mike Hudson**, Fiber Supply Manager, for International Paper, Bogalusa Paper Mill, **Charles Reith**, Professor of Natural and Environmental Sciences and Sustainability Director, American University of Nigeria. Front Row, left to right: **Richard Sharp**, Manager, Resource Planning, **CLECO**, **Denise Attaway** (Conference Co-Coordinator), LSU AgCenter, Biofuels / Communication, **Richard Vlosky** (Conference Co-Coordinator), Director, Louisiana Forest Products Development Center, LSU AgCenter, **Rick Buhr**, Executive Director, NFR BioEnergy, LLC., **Dan Len**, Regional Biomass Coordinator, Forest Service Southern Region.

Other speakers not shown: **Mike Jostrom**, Director-Renewable Resources, PlumCreek, **Russell Richardson**, Director, Business Development, Baton Rouge Area Chamber, **Melanie Verzwuyvelt**, Staff Attorney, Louisiana Public Service Commission.

Additional photos from the conference can be found at:

<https://www.flickr.com/photos/38766855@N00/albums/72157660178800572>

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