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Southern Bioenergy Network News – September 2014 Edition

Dear Southern Bioenergy Network Partners,

Welcome to the September 2014 edition of the Southern Bioenergy Network News. Trouble viewing the email? See the <u>September 2014 edition of the Southern Bioenergy Network News</u> online.

Last week, USDA Secretary Vilsack <u>announced</u> that USDA is investing \$68 million in 540 renewable energy and energy efficiency projects nationwide through USDA Rural Development's <u>Rural Energy for America Program (REAP)</u>. While nearly half of the projects funded were solar PV installations, 15 biomass/bioenergy projects were awarded grants or guaranteed loans. View the full list of REAP award recipients <u>HERE</u>.

On the same day that USDA made its announcement in Bunn, NC, I was at the Williamsdale Biofuels Field Laboratory in Wallace, NC, for the North Carolina Bioenergy Field Day and Tour. The event was well organized, very well attended (100+), the program was superb and you could not have asked for better weather. The morning session highlighted the work of researchers in various aspects of variety trials. During the lunch session, participants heard updates from industry partners such as BioChemtex, Nexsteppe, REPREVE Renewables, Tyton BioEnergy, and Ernst Seeds. The afternoon session consisted of a tour of Coastal Carolina Clean Power – a 32 MW woody biomass-to-electricity facility in Kenansville.

The photos below capture some of the research that is taking place at Williamsdale Lab and activity at the CCCP facility. Photo credits to Helene Cser, NCSU.



B. Bailey standing with hybrid poplars. These cottonwood crosses are genetically improved, not genetically modified. These trees are just over 2 years old. For scale, I am 6 feet tall









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Standing alongside a field of giant miscanthus.



Standing in front of a test plot of Napier grass, also known as arondo donax



Standing next to a sizeable test plot of biomass sorghum – a tall hybrid with increased biomass for cellulosic-based energy utilization.









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Truck unloading woody biomass feedstock to the Coastal Carolina Clean Power fuel yard.

The North Carolina Bioenergy Field Day and Tour was inspired by the events associated with the upcoming National Bioenergy Day. There is still time to plan your own bioenergy-focused event. Learn more below!

National Bioenergy Day

National Bioenergy Day is a month away (October 22). Currently, there are up to 40 events planned in 24 states plus Canada – a significant increase over last year's 25 events in 14 states. The website and educational video are very close to completion and will hopefully be online soon. There is still plenty of time to participate and to plan your own event. Please contact <u>Carrie Annand</u> as soon as possible to get involved. This day is intended to raise the profile of bioenergy among the local public and showcase the entire bioenergy supply chain.

To help plan these events, National Bioenergy Day organizers have created a <u>Step-by-Step Guide available</u> <u>here >></u>.

What you can do:

- Create a facility tour or "open house event" for legislators or the public
- Invite community leaders and local decision makers
- Host school trips and educate them about renewable local energy
- Reach out to local media and communicate your contribution to the regional economy







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SAFER/25x'25 is urging our Southern Bioenergy Network partners to help promote National Bioenergy Day, recruit local companies/organizations to host an event, and recruit local sponsors. Download the <u>participation form here</u> and join with other bioenergy leaders to build greater awareness of the benefits and contributions of bioenergy to the local community.

Renewable Fuel Standard

On August 22, the EPA sent the final Renewable Fuel Standard to the Office of Management and Budget on Friday, triggering a broader review of the final proposed 2014 renewable volume obligations rule. The EPA received 340,000 comments on the proposal and during the past year there has been ongoing speculation about whether the agency would back off its proposed cut of nearly 3 billion gallons. EPA offered the previous proposal to reduce the RFS in response to oil industry concerns. However, the biofuels industry has worked extensively to convey to EPA that current RFS volumes for 2014 should be left statutory levels in order to meet the goals of curbing our dependence on foreign oil, cutting carbon emissions, and driving rural economic development. OMB will have up to 90 days to review the rule.

As the industry continues to wait for the EPA to hand down the final rule, political figures and members of the biofuel industry continue to advocate for maintaining a strong RFS program. A group of seven companies active in the cellulosic biofuels industry issued a Letter to President Obama highlighting the important role the RFS plays in encouraging investment in advanced biofuel projects. Sen. Dick Durbin, D-Ill, issued a Letter to OMB, urging the agency to thoroughly review the proposal and work toward a final rule that promotes investments in the next generation of biofuel and the infrastructure necessary to bring those fuels into the market.

Despite the lack of short-term biofuels policy certainty, the first of four cellulosic biofuels facilities officially opened earlier this month. The Project Liberty, a commercial-scale cellulosic ethanol plant operated by POET-DSM in Iowa, formally started operations. Project Liberty is expected to generate 20 million gallons of cellulosic ethanol annually from corn cobs, leaves, husks and stalks, increasing production later to 25 million gallons.

About a week later, the Quad County Corn Processors ethanol plant in Galva, Iowa, celebrated the <u>unveiling of the Cellerate cellulosic ethanol technology</u>. Cellerate is a collaboration between Syngenta and Cellulosic Ethanol Technologies, LLC. Cellerate is designed to increase a corn ethanol plant's production by allowing the corn kernel fiber to be converted into cellulosic ethanol. Ethanol plants can easily integrate Cellerate process technology into their existing production process.

In total, more than 80 million gallons of cellulosic ethanol capacity is coming online over the next several months. That's a milestone for the biofuels industry, and will be a boon for farmers who can take advantage of this opportunity. For more information about these cellulosic biofuel projects, see the <u>Fuels America infographic</u>.









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Biogenic Carbon Accounting

We continue to anxiously await release of the Environmental Protection Agency's (EPA) biogenic framework, which will determine how carbon emissions from biomass combustion will be treated under the Clean Air Act. Our prediction holds that since the framework did not emerge in August, it will likely be held by the Administration until after the November election. However, we are receiving some conflicting reports that suggest it may be released in September. In any event, we will need to be poised to react quickly to the document whenever it is unveiled.

In the meantime, the Society of American Foresters (SAF) has published "Forest Carbon Accounting Considerations in US Bioenergy Policy" in the Journal of Forestry. The article identifies and examines scientific-based insights essential to understanding forest bioenergy and "carbon debts" and illustrates why quantifying the full spectrum of forest-based activities is critical when accounting for biogenic carbon and carbon dioxide. More importantly, the article derives that wood products and energy resources derived from forests have the potential to play an important and ongoing role in mitigating greenhouse gas (GHG) emissions.

IBSS Woody Biomass Whistle Stop Tour - Save the Dates for Sept. and Oct.

In September and October the Southeastern Partnership for Integrated Biomass Supply Systems (IBSS) will take to the road to show off research progress from the regional program, which is focused on bioenergy production in the Southeast. During the tour, IBSS will feature Auburn University's mobile biomass gasifier, demonstrating how to turn biomass into electricity on a small scale.

On Tuesday, September 30, the tour will stop in Columbus, Miss., for an IBSS/Advanced Hardwood Biofuels (AHB) Field Day. Based on two years of successful experiments in the Southeast and Pacific Northwest with fast-growing cottonwood and hybrid poplars, IBSS, AHB, GreenWood Resources, and ArborGen have partnered to establish a 70-acre hybrid poplar plantation. At this stop, visitors will get to walk through the plantation and learn about new research on genetics, stand establishment, wildlife impacts and biomass harvesting logistics.

On Friday, October 10, the tour will stop at the University of Tennessee Institute of Agriculture East Tennessee Research and Education Center (ETREC) in Knoxville for a half-day Woody Crops Field Day. Visitors to the ETREC will learn first-hand about new energy crops like fast-growing woody poplar and their importance as a feedstock for the emerging biofuels industry. This event will coincide with the IBSS Annual Meeting so many experts will be on hand to answer any questions you might have on bioenergy production.

Lunch will be provided for all attendees at the Columbus, Miss. site and the ETREC in Knoxville, TN. Advanced registration is required for planning purposes. Please email jfox16@utk.edu for registration and check back hereforthe-latest-details-about the-event.









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Be a SAFER Alliance Partner

Thanks for your continued support of the Southern Bioenergy Network and of SAFER. If you have not yet done so, I want to invite you to you to become a partner of SAFER. Please go to the SAFER Alliance website at www.saferalliance.net and look for the <a href="mailto:"Partners" link. Joining is easy and there are no membership fees. Your support and partnership is greatly appreciated!

Sincerely,

Brent Bailey

Brent Bailey 25x'25 Alliance State Activities Coordinator SAFER Alliance Project Coordinator

News from around the world and around the nation that impacts our region's bioenergy development vision:

International

The expansion of renewable energy will slow over the next five years unless policy uncertainty is diminished, the International Energy Agency (IEA) said today in its third annual <u>Medium-Term Renewable</u> <u>Energy Market Report</u>. The report also states that the roles of **biofuels** for transport and renewable heat are also increasing, though at slower rates.

A Finnish organization has started a new website called the Small Giant of Bioenergy. It deals with different aspects of **bioenergy** and the site provides free information of solid biofuels, utilization, preparing/supplying, storing etc. and information on bio heating. Have a look at the site http://www.bioenergyadvice.com/.

RISI has released its <u>Global Pellet Demand Outlook Study</u> which estimates that global **wood pellet** demand is projected to grow from an estimated 23 million metric tons in 2014 to 50 million tons in 2024. Among factors in the increase: entry of Korea and Japan into the market.

Ontario Power Generation's (OPG) <u>Atikokan Generating Station</u> (GS) is now <u>operating on biomass</u>. The station is the largest power plant in North America fuelled by 100 per cent **biomass**. The station stopped using coal as fuel in September 2012 and underwent a \$170-million conversion giving it the ability to produce approximately 200 MW at full capacity. Primary fuel is locally sourced wood pellet biomass.









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National

The Department of Defense has <u>awarded \$210 million under the Defense Production Act</u> to Emerald Biofuels, Fulcrum BioEnergy and Red Rock Bio towards the construction of biorefineries that produce cost-competitive, drop-in military **biofuels**. The Emerald project is slated to be built in the South.

<u>Politically "red" and "blue" states are increasingly turning green</u> as they push **energy efficiency and renewable power** to save money and protect the planet, says a new bi-partisan report. The "<u>State Clean Energy Cookbook</u>" highlights GOP-dominant states that have adopted energy policies that could serve as models for others across the nation.

The <u>DOE Bioenergy KDF</u> released a new resource: the <u>Legislative Library</u>. Using this database, you can track federal legislation relevant to the production and use of **biofuels** in the United States. Search by congressional session, political party, state, chamber, or status to learn about the work being carried out by specific members or committees to advance the U.S. biofuels industry.

Understanding the available supply of RFS-qualified material is necessary to secure adequate feedstock for a **biofuels** project. Forest2Market applies its <u>forestry supply chain expertise to describe</u>:

- How the ambiguity in EPA definitions could affect estimates of available supply
- Potential restrictions to supply in a given wood basin
- Recordkeeping and reporting requirements when using RFS-qualified material

In this <u>sixth biennial report</u>, Battelle and BIO continue the tradition of reporting national and state statistics for the **bioscience** industry in the U.S. The promise of bioscience-based solutions to global grand challenges in human health, food security, sustainable industrial production and environmental protection provides an optimistic picture for the biosciences as a key economic development engine in the U.S.

As of early 2014, 18 states were updating or considering developing new energy plans. The Missouri Energy Institute's new policy paper "Implications of State Energy Plans" is MEI's first attempt at looking at the common threads concerning state energy plans. Currently, 38 states and the District of Columbia have some form of energy planning document to guide statewide **energy policy**.

The Renewable Fuels Association (RFA) released a <u>report</u> that further debunks the **food vs. fuel** argument. The report shows that while corn prices have dropped dramatically over the past two years, retail food prices of dairy, pork, poultry, eggs, and beef have remained steady or continue to increase.

The EPA **CHP** Partnership has completed an update of the <u>Catalog of CHP Technologies</u>. The Catalog provides an overview of each type of commercially viable CHP system in the U.S. and explains how these technologies work. The revised Catalog also includes updates on current cost and performance characteristics, developments in new technologies, and information on water usage of CHP systems.









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Regional

The U.S. DOE has announced that Southern Research Institute has been selected for negotiation for an award of up to \$5.9 million to advance production of high performance, low cost carbon fibers from **biomass**. The DOE announcement can be found here.

See the latest <u>IBSS Newsletter</u> on the **Woody Crop Whistle Stop Tour**, webinar, partner news and research highlights.

Protect Fuel is working with retailers in the South and Southeast to open 28 **E15 and E85** stations. The <u>announcement</u> marks the first phase of an introduction of E15 to cities including Atlanta, Georgia and Houston, San Antonio and Dallas, Texas. Florida and Virginia will also be on the target list.

In the States

Arkansas

<u>Highland Pellets LLC announced</u> it will build a \$130 million, 500,000 metric ton **wood pellet** facility in Pine Bluff creating 35 jobs. Highland Pellets is a privately held company with industry veterans from the wood pellet, finance, and energy markets.

Florida

The Florida Renewable Energy Association has released its <u>September edition of the SunState News</u>, a news digest and coalition bulletin board pertaining to the development of **renewable energy** in Florida and around the world.

<u>Ineos Bio is in the process of resuming operations</u> at its **cellulosic ethanol** plant after production was disrupted by a buildup of hydrogen cyanide in the gasification process. The firm completed upgrades at the facility and is installing new equipment to address the cause of the contamination.

Georgia

Eco-Energy <u>announced</u> the development of an **ethanol** unloading, storage and outbound truck loading facility in Augusta, Georgia, which will serve the Augusta and Savannah markets. The facility will be equipped with 3.7 million gallons of dedicated ethanol storage in order for an inbound 80-car train to be emptied and released back to the railroad within 24 hours.

Kansas-based Flint Hills Resources <u>announced</u> an agreement with Southwest Georgia Ethanol, LLC to acquire its **ethanol** plant in Camilla, Georgia. The plant opened in 2008 and has an annual capacity of 100 million gallons of ethanol. It also produces more than 275,000 tons of dried distillers grains and approximately 25 million pounds of non-food grade corn oil each year.









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The Herty Advanced Materials Development Center has added two wood grinding hammer mills to its applied research facility to allow for efficient testing of high moisture content materials for biofuel **pellet** feedstock.

A \$230 million <u>combined-heat-and-power biomass project</u>, Albany Green Energy, is under construction in Albany, Georgia. The 50-MW capacity project will generate 42 MW for sale to Georgia power and supply steam to the Albany Procter & Gamble Paper Products Co.

Kentucky

University of Louisville's Conn Center for Renewable Energy Research received a five-year, \$4.2 M award from NSF for the "Powering the Kentucky Bioeconomy for a Sustainable Future" project - a collaborative, multi-institutional research effort. Areas of focus will be electrochemical energy storage, **biomass feed stocks** and nanocomposite membranes. The <u>University of KY and others</u> also received \$20 M to create new research infrastructure, hire faculty and researchers and train more students in science and technological fields.

Louisiana

Virdia is planning to build a \$60 million <u>biorefinery that would turn bagasse into industrial sugars and biofuels</u>, according to an <u>announcement</u>. The **biorefinery**, to be built next to the Raceland Raw Sugar mill, hopes to be completed by the end of 2016.

Start up firm, <u>ReactWell</u>, is developing a system for chemically manufacturing crude oil using **algae** and other ingredients in underground reactors powered in part by gravitational pressure and geothermal heat.

NFR BioEnergy announced the company will make a \$312 million capital investment to install biomass mills at more than 10 sugar refining hubs in South Louisiana, subject to completing lease and biomass agreements with sugar mills. NFR BioEnergy will convert sugar cane waste, known as bagasse, into hardened, **torrified energy pellets** for use as fuel at global power plants.

<u>Biomass Power Louisiana LLC</u> is moving forward with the financing of its \$147 million, 1 million metric tons per year biomass **wood pellet** plant in Natchitoches. A ceremonial groundbreaking is expected to occur in October of this year with actual groundbreaking in mid-January 2015.

Minnesota

Minnesota's economic future may well be rooted in its historic leadership in agricultural production. *Agbioscience as a Development Driver: Minnesota Agbioscience Strategy* includes an assessment of Minnesota's key capacities and opportunities in agricultural research and a suggested strategy for the state.







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Mississippi

On Tuesday, September 30, the **Woody Crop** tour will stop in Columbus, MS, for an IBSS/Advanced Hardwood Biofuels (AHB) Field Day. More details about the event and registration can be found online at the IBSS website.

The **KiOR** saga continues to evolve and delves into chaos at the Board of Directors level. Paul O'Connor has resigned from the company's board of directors. Mr. O'Connor is generally identified as one of the principal inventors of the technology deployed by KiOR. Biofuels Digest has a series of memos and the resignation letter. KiOR has said it will likely be forced to seek bankruptcy protection if it is unable to secure additional funds by Sept. 30.

<u>BlueFire Renewables Inc. recently filed a quarterly report</u> with the U.S. SEC detailing the company's financial state and an update on its initial planned biorefineries – one being the proposed 19 MMgy **cellulosic ethanol** plant in Fulton, Mississippi.

North Carolina

Enviva plans to open pellet plants in Sampson and Richmond Counties by 2017, representing a combined \$214.2 million investment and 160 jobs. The **wood pellets** will be exported from a new terminal at the Port of Wilmington.

<u>For the third consecutive year</u>, North Carolina utilities say they can't meet state requirements for production of power by **swine waste** and are asking the N.C. Utilities Commission to delay the requirement until the end of 2015.

Oklahoma

The Oklahoma Corporation Commission will be taking comments in preparation of a decision whether or not to allow the regulated utilities to <u>apply a new tariff to **distributed generation** customers</u>.

Tennessee

Genera Energy released an infographic of a visual overview of **biomass** feedstocks and guidelines for choosing the best solution for biomass projects. The <u>four-page infographic</u> highlights key supply chain elements and explores which biomass crops are best suited for an application.

<u>Dynamic Recycling LLC has broken ground</u> on their new Distilled Spirits Plant in Bristol, Tennessee. The company specializes in full beverage and cosmetic recycling services where the liquids are used as a feedstock for production of renewable fuel **ethanol**.

Check out this month's <u>Ag Innovation Notes</u> e-newsletter designed to connect you to the commercialization initiatives of the <u>Ag Innovation Development Group</u> and its partners, as well as upcoming events and agricultural innovation news.









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Events

The **Southeast Diesel Collaborative** (SEDC) will hold its 9th Annual Partners Meeting September 22nd - 25th in Atlanta. Below is the Draft Agenda for your review. If you would like to attend this information filled meeting please go to registration page, today, by clicking the following link: http://www.southeastdiesel.org.

On Tuesday, September 30, the <u>Woody Crop Whistle Stop tour</u> will be in Columbus, MS, for an **IBSS/Advanced Hardwood Biofuels (AHB) Field Day**. Partners have establish a 70-acre hybrid poplar plantation. At this stop, visitors will get to walk through the plantation and learn about new research on genetics, stand establishment, wildlife impacts and biomass harvesting logistics.

Webinar: Wood Energy Financial App: Is your woody biomass heating project feasible? This webinar is scheduled for Sep 30, 2014, at 2:00 pm US/Eastern

The <u>Midwest Energy Policy Conference</u> will be held September 30 - October 1 at the Eric P. Newman Education Center on the Washington University Medical Campus in St. Louis, Missouri.

The NC Sustainable Energy Association will be holding its 6th annual <u>Making Energy Work conference</u> at the Charlotte Convention Center on October 1-2, 2014.

On Friday, October 10, the <u>Woody Crop tour</u> will stop at the University of Tennessee Research and Education Center (ETREC) in Knoxville for a half-day tour. Visitors to the ETREC will learn first-hand about new energy crops like fast-growing woody poplar and their importance as a feedstock for the emerging biofuels industry.

The **Tennessee Renewable Energy & Economic Development Council** will holding their first annual meeting in Cookeville, TN on Oct. 12-14. For more information, <u>visit the TREEDC website</u>.

Gulf Coast Electricity Transmission Summit to be held on October 16, 2014 at the Tulane University Law School in New Orleans, Louisiana. This event is co-sponsored by Americans for a Clean Energy Grid and the Tulane University Law, Business, and Engineering and Science Schools. For more information and to register, please visit: http://cleanenergytransmission.org/gulf-coast-electricity-transmission-summit/.

The **Arkansas Advanced Energy Association** is holding its Annual Policy Conference in Little Rock on Oct. 17. For more information, <u>visit the AAEA website</u>.

The **Texas Renewables Conference** will be held on November 3-5, 2014, in Dallas, TX. Visit the <u>Texas Renewable Energy Industries Association</u> for more information.

Tennessee AgriTech Challenge at Middle Tennessee State University on November 11, 2014 from 2:00 to 5:00 P.M.







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The Mississippi Biomass and Renewable Energy Council will hold the 13th Annual Southern BioProducts and Renewable Energy Conference on November 13, 2014 on the USM campus in Hattiesburg, MS. SAVE THE DATE. Registration is here with more details coming soon.

Save the date! The Southeastern Sun Grant Center invites you to participate in the regional conference, Southern Crossroads: Progress In the Science & Technology of Biomass Production, **Processing and Use.** Hosted by The IBSS Partnership, the conference is scheduled for February 2-4, 2015 at Auburn, AL.

If you missed BTEC's recent webinar, "Biomass-Fueled CHP: A review of today's market and **technology**," you can access the live recording and presentation materials at <u>BTEC's website</u>. Topics include a thorough overview of biomass-fueled CHP, specific CHP technologies and projects, and a characterization of the national market for CHP.

DuPont Biorefinery Solutions held a webinar on "Building a Sustainable Supply Chain for Cellulosic **Biofuels.**" You can view the webinar on the DuPont Biofuels website, along with additional information on the DuPont Stover Harvest Program, progress on its commercial-scale cellulosic ethanol facility in Nevada, and more.

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