



July 2010 News from the International Biochar Initiative

30 July 2010

IBI 2010 Updates

The IBI 2010 International Biochar Conference is scheduled for 12-15 September in Rio de Janeiro, Brazil! More information is at www.ibi2010.org.

Don't forget - IBI is offering a special discount on the registration fee to our members. To take advantage of the discount, you will need to enter your discount code into the registration form. You can register at www.ibi2010.org.



If you are not yet an IBI

member: [click here to join now](#). Once you have paid your membership fee, the discount code will be emailed to you

If you are already an IBI member: We emailed discount codes to all IBI members. If you have misplaced that email, let us know and we can resend your discount code.

Excursion to the Amazon: There will be a boat excursion to the Amazon September 16 - 18th to see Terra Preta sites firsthand. Participants will sleep and eat on the boat and disembark during the day to tour sites. In addition to the chance to see Terra Preta in the Amazon, this is a great networking opportunity. There are a limited amount of spaces left and registration has been filling up quickly, so we suggest that you register soon if you are interested. To read more and to register, please see: <http://www.ibi2010.org/field-trip-to-the-amazonexcursao-tecnica-para-a-amazonia>.

Travel information, including recommendations for hotels has been posted on the conference website at: <http://www.ibi2010.org/venue-and-travel-informationlocal-e-informacoes-sobre-viagens>. Due to the large number of events in Rio at the time of this conference, we recommend making your hotel reservations by August 5th.

Sponsorship Opportunities are still available at a wide range of levels. For more information for your organization, please see: <http://www.ibi2010.org/sponsoring-opportunitiesoportunidades-de-patrocinio>.

Final Agenda coming soon: The organizing committee is finalizing the agenda and speakers for IBI 2010, and will post the agenda soon. For those making travel arrangements, the conference will start Sunday the 12th with an evening reception and will go through 2 pm Wednesday September 15th.

Biochar Symposium in Hangzhou, China Announced

Zhejiang University in collaboration with colleagues in China and elsewhere is hosting an International Symposium on Environmental Behavior and Effects of Biomass-derived Charcoal in Hangzhou, China October 9-11, 2010.

The main objective of this symposium is to provide a platform for international experts and academics in the area to exchange ideas, to discuss scientific subjects from the viewpoint of environmental science, geochemistry, biology, soil science and policy, to promote further worldwide research and collaborations in biochar, and to develop carbonization technology for biochar production in a sustainable manner.

For more information on the symposium, and to register, please visit the event website at: <http://www.iest.zju.edu.cn/biochar2010>

US House and Senate Staff Briefed on Biochar for Carbon Sequestration

Cornell University hosted Capitol Hill briefings on July 13, 2010 for staff of the US House of Representatives and the US Senate. The briefings covered Carbon Sequestration Practices - comparing the relative attributes and benefits of biochar to geologic carbon sequestration. Dr. Johannes Lehmann, Cornell University Associate Professor and IBI Board Chairman, discussed biochar's role and potential as a climate change mitigation strategy and a soil enhancer. The briefings were well attended and well-received, and generated excellent questions and discussions. The House briefing, held in the Science Committee room, drew more than 100 participants from on and off Capitol Hill. The Senate briefing was held in the new Capitol Visitors Center, and attracted over 25 participants.

For more information on the event, please see: http://www.biochar-international.org/press#july_13.

Project profile: Biochar Engineering Corporation

Jim Fournier is among a handful of pioneers who have been working on biochar since before the word "biochar" existed. He helped convene the first US meeting on agricultural charcoal at the University of Georgia in June 2004, cofounded Eprida in 2005, and was present at the birth of the IBI in July 2006. Later that year, he founded Biomass Energy & Carbon with one of the preeminent experts in the world on biomass gasification and pyrolysis, Tom Reed. In April 2009, BEC restructured as Biochar Engineering Corp to focus exclusively on biochar production equipment. BEC's facility is located in



Golden, Colorado, United States.

BEC's core mission is to accelerate the creation of the biochar industry. Fournier believes that it will take several years of field-scale agricultural trials before the biochar market will really take off and reach its full potential of gigaton-scale carbon sequestration. BEC focuses on the development of smaller scale modular units, which can be deployed now and will continue to offer environmental and social benefits in the long run.

For the remainder of this story, please see: <http://www.biochar-international.org/BEC>.

Photo: The U3 unit running, courtesy of BEC

Biochar for Environmental Management now free to read online for IBI members

The premiere biochar textbook, [Biochar for Environmental Management: Science and Technology](#), edited by Johannes Lehmann and Stephen Joseph (2009), has just been made available online at no cost to IBI members thanks to Earthscan Publishers. If you are a member and do not have a link to read the book, please email Thayer Tomlinson at info@biochar-international.org.

If you are not a member, [you can join IBI here](#).

Presentations from the June 2010 USBI Conference Available Online

Biochar 2010, the U.S. Biochar Initiative Conference, was held June 27 - 30th 2010 in Ames Iowa and was a great success. We congratulate USBI and the host organization, the Bioeconomy Institute of Iowa State University. The three full conference days were filled with excellent presentations, displays, outdoor demonstrations, and a trip to the BioCentury Research farm to see biochar test plots along with production units. The conference organizers have posted all available presentations to the conference web site. To access the presentations, go to: <http://www.biorenew.iastate.edu/events/biochar2010/conference-agenda/agenda-overview.html>, and click on the title of the session you want.



Photo: Biochar field trial at ISU shows a dramatic difference between corn grown on extremely poor soil with biochar (on the left) and the same soil amended with biochar (on the right); courtesy of Albert Bates.

Gates Foundation Holds Biochar Meeting

The Bill and Melinda Gates Foundation held a Biochar Convening meeting on July 1 in Seattle attended by experts in the science, policy, development and commercialization of biochar. With an explosion of new research results on biochar over the past couple of years, the Gates Foundation was scoping the potential for biochar systems to increase farmer productivity in Africa and South Asia. The foundation's focus in these areas is on increasing farm household

incomes, reducing the number of underweight children, and improving the quality of diets.

IBI board president Johannes Lehmann gave an overview of biochar properties and behavior, followed by an overview of biochar field application research by Lukas Van Zwieten of the New South Wales Department of Primary Industries and Energy. IBI's Stephen Joseph talked about biochar production technology and Saran Sohi of the UK Biochar Research Centre spoke about integrated biochar systems. Frank Verheijen of the European Commission on Joint Research facilitated a summary discussion where participants sorted the biochar implementation issues into categories of technical, application, and commercialization issues. Representatives from AnthroTerra, WorldStove, Pronatura, Forest Trends and Care International spoke about commercialization and development opportunities, while IBI's Debbie Reed along with representatives from UNCCD and the World Bank spoke about policy options.

The meeting was a valuable opportunity for biochar researchers and development agents from around the world to come together and discuss biochar research needs and identify risks and opportunities for certain geographic regions.

Increase Your Voice at IBI

The IBI website is a comprehensive information platform for the biochar community. Your IBI communications team is busy every day adding new announcements, reports, news items and bibliographic materials. However, to keep abreast of everything that is happening in a global and growing community, we must rely on you, the members of the biochar network, to keep us informed about events, developments, and news. In turn, we will pass those on the broader community. Here are some ways for you to be involved:

Biochar companies: send us your press releases to post on our daily news feed and monthly news roundup. Become an IBI member and enter information about your company in the publicly-searchable IBI Member Directory. If your company sells biochar, you can indicate that in the directory so that buyers may find you.

Biochar researchers: send us your announcements of grants and research opportunities, as well as published reports and new citations. IBI will publish your meeting and calendar items if you submit them.

We would also like to hear about projects outside of academia and the commerce. Those working on developing country projects should send IBI links to published reports and other news. Others working at the grassroots level in schools and community gardens are welcome to send reports and announcements. You may want to join or form a biochar regional group for mutual support. IBI provides a web page for each regional group in our network.

IBI is especially interested in receiving news and announcements from non-English-speaking countries as these are harder for us to find on our own through Internet searches.

Finally, to all our members and supporters - THANK YOU for contributing and helping to make the IBI website a valuable information portal for with the large and growing international biochar community!

Biochar Briefs - News Roundup for July 2010

A number of new biochar studies, ventures and awards were announced in July, including the following:

The UK Biochar Research Center (UKBRC) has released a report titled: "[An Assessment of the Benefits and Issues Associated with the Application of Biochar to Soil.](#)" The report was prepared for the UK Department for Environment, Food and Rural Affairs, and the Department

of Energy and Climate Change

The Climate Action Reserve (a national offsets program working to ensure integrity, transparency and financial value in the US carbon market) has published an issues paper on biochar titled "[Soil Carbon Sequestration of Biochar](#)." The paper was prepared by Terra Global Capital, LLC to examine issues around biochar as a Future Protocol Development Project Type for the Climate Action Reserve and the California Climate Action Registry.

The US Biochar Initiative has published its "[US Focused Biochar Report - Assessment of Biochar's Benefits for the United States of America](#)." The report was released at the recent US Biochar Conference in Ames, Iowa, where it was discussed in a special seminar event.

"Building the Biocarbon Economy: How the Northwest Can Lead," is a new briefing series from the Seattle, Washington group, Climate Solutions. The report details how forests, farms, cities and businesses can mobilize biological carbon resources to stabilize the climate and includes several sections on the role of biochar.

The Mineral County Challenge in Mineral County, Montana (US) has announced eight economic development projects, including a pilot project by Tricon Timber Company to turn lumber mill waste into bio-oil and biochar. Since the Frenchtown Smurfit-Stone mill closed, Tricon has nowhere to take its residual material. Tricon is currently shipping it out of the region and the company is considering burning the waste in old-fashioned tipi burners just to get rid of it. A grant will help the company evaluate how well different pyrolysis technologies work with western Montana fuels.

The US EPA Small Business Innovation Research (SBIR) program has granted Phase II funds of \$345,000 to Down to Earth Energy of Monroe, Georgia, for a bioenergy project that includes biochar. The funds will be used to scale up and commercialize reusable and recoverable solid, porous acid and base catalysts for biodiesel production using biochar generated from agricultural and forestry residues.

Jackson County in Oregon is supporting biochar projects using wood waste. The government of Jackson County is setting up a business accelerator program to brand the county as "Sustainable Valley," and nurture family-wage jobs in Southern Oregon. The county is halfway to its initial fundraising goal of \$180,000 to get the program off the ground. County officials say that the effort will support local biomass companies including a biochar company called Biochar Global Solutions.

Regional Biochar Group Updates

To read more on regional and national biochar groups, please see IBI's website at: www.biochar-international.org/network/communities. This month includes a new group in Quebec, Canada, as well as updates from the South East Asia Biochar Interest Group, the Mongolian Biochar Initiative, and SeaChar (Seattle, United States).

Biochar Quebec

Biochar Quebec is a non-profit organization currently in development, which serves as the focal point for the promotion of biochar in Quebec as a strategic vector for sustainable development. Biochar Quebec brings together researchers, entrepreneurs, scientists, students and concerned citizens alike.

Biochar Quebec's mission is to promote the production and use of biochar as a strategic vehicle for sustainable development, to reduce pollutant runoff of fertilizers and pesticides into nearby waters, fight climate change and increase food security by improving soil quality, and this, through the promotion of research and development, production and marketing of biochar.

Biochar Quebec is hosting a conference and field visit plus demo day on Thursday Sept. 2. Several speakers will discuss field trials underway in Quebec, and talk about other aspects of biochar that are relevant to its use in agriculture. We will also visit several biochar experiments run by BlueLeaf inc., and demonstrate some biochar making equipment. For more information please contact Julie Major at juliemajor@gmail.com.

For more information on this new initiative, please see:
<http://www.biochar-international.org/groups/quebec>.

South East Asia Biochar Interest Group

Assessing Opportunities for Biochar in Yunnan, China and the Greater Mekong Sub-region - Study Update and request for Project Proposals.

Biochar Systems Ltd (BSL) and SaafConsult have commenced a biochar related study for FAO-RAP in the Greater Mekong Sub-Region (GMS) under the GMS Economic Cooperation Program. The objective of this study is to examine opportunities to use biochar for the benefit of rural communities with a focus on Yunnan Province, China. Yunnan is one of two southern China provinces in the GSM. A Yunnan based study participant organization is currently being finalized.

Planned outputs from the study include a report, project proposals and a GSM workshop. The study group is seeking biochar community support related to the preparation of proposals for follow-up projects that will be presented as part of the study. We are hoping to collaborate with the biochar community on preparing Project Proposals that will be submitted as part of the study.

For more information on the group and submitting a proposal, please see:
<http://www.biochar-international.org/regionalgroups/southeastasia>.

Mongolian Biochar Initiative (MoBI)

For those interested in low tech biochar production, pictures and text for making a simple UBI Hollow Core Fired (HCF) Biochar Oven have been posted on <http://www.biochar-international.org/regional/mongolia>. This [document has simple step by step instructions](#) as well as photos. The HCF oven is a simple, low tech pyrolysis apparatus dedicated primarily to the production of biochar, usually with a feedstock capacity of 50 - 5,000 liters. The focus on ovens is primarily because they are more efficient and environmentally friendly than adaptations of more traditional methods of low tech charcoal production.

Seattle Biochar Working Group (SeaChar) (United States)

SeaChar has some test plots underway in poor soils to study the difference between biochar-amended soils and non-amended soils. Recently, the group worked on the plots with help from Creatives4Community (www.creatives4community.org), along with approx. 20 of their middle and high school student interns. Also helping out were members of Seattle's Service Board program www.theserviceboard.org.

"Although it is too soon for us to be drawing conclusions about how the biochar and compost amendments are effecting this very poor soil's productivity, clear differences in how amended and non-amended treatment blocks are visible. The unamended plots are far behind those with added carbon." For more information on SeaChar, please see: <http://www.biochar-international.org/regional/seattle>.



Photo courtesy of Art Donnelly

Recently Published Biochar Research

IBI tracks all published research on biochar and includes it in our online bibliography: www.biochar-international.org/biblio. The following articles were added in the last month. Please visit the website bibliography for more information on any of these articles. Due to copyright, we cannot provide full copies of articles unless we have permission from the publisher. If you have published work that is not included, please email us at info@biochar-international.org.

Agustin G. Barneto, José Ariza Carmona, and M. Jesús Díaz Blanco. 2010. Effect of the Previous Composting on Volatiles Production during Biomass Pyrolysis. University of Huelva, Spain.

Beesley, L., Moreno-Jimenez, E., Gomez-Eyles, J.L., 2010. Effects of biochar and greenwaste compost amendments on mobility, bioavailability and toxicity of inorganic and organic contaminants in a multi-element polluted soil. *Environmental Pollution* 158, 2282-2287.

Boateng, A.A., C.A., Goldberg, N.M., Hicks, K.B., Devine, T.E., Lima, I.M., McMurtrey, J.E., 2010. Sustainable Production of Bioenergy and Biochar from the Straw of High-Biomass Soybean Lines via Fast Pyrolysis. *Environmental Progress & Sustainable Energy* 29, 175-183.

Pratt, K., Moran, D., 2010. Evaluating the cost-effectiveness of global biochar mitigation potential. *Biomass & Bioenergy* 34, 1149-1158.

Scott, A.C., Damblon, F., 2010. Charcoal: Taphonomy and significance in geology, botany and archaeology. *Palaeogeography Palaeoclimatology Palaeoecology* 291, 1-10.