



September 2010 News from the International Biochar Initiative

October 1, 2010

IBI Characterization Standards Update

Reminder: Expressions of Interest for Working Group Membership deadline October 6, 2010.

IBI has been engaged for some time in efforts to develop globally-developed and accepted standards for biochar characterization and the development of standards pertaining to biochar production and utilization. Having successfully raised funds to continue this work, IBI recently contracted with Keith Driver of Leading Carbon, Ltd., to lead this effort.

At IBI's recent Third International Conference on Biochar, hosted by Embrapa in Rio de Janeiro Brazil, Keith laid out the process that he will undertake in conjunction with IBI to establish a global, transparent process for setting biochar standards. Our goal in this particular phase of the work is to produce a universally developed "final product" that any of our members or member organizations can utilize as a basis for governmental and third-party certification agencies to develop biochar standards, apart from any use IBI makes of these products. The presentation, as given in Rio, is available on our website at: <http://www.biochar-international.org/characterizationstandard>.

As we undertake this new phase of work, we want to invite all interested stakeholders to engage in the biochar standard development process. There will be two methods of engagement.

Working Group Member: A working group of approximately 10 - 15 interested and qualified stakeholders will be formed to assist directly in the development of the standard. This will involve a number of virtual working sessions over the coming months to discuss key issues and comment on drafts prepared by the consultant, based on input from the biochar community. We are currently accepting nominations for members to participate in this new effort, and want to encourage all interested parties to participate. The application process will be open to all IBI members and the selection of members will focus on expertise in a specific field. The expression of interest form is available at: <http://www.biochar-international.org/characterizationstandard>. Expressions of interest are due by October 6th, 2010.

Open Comments: All drafts of the standards will be posted on the IBI website. These drafts will be open for comment at any time, with comments forwarded to the working group for consideration. There will also be a formal comment period (45 days) and balloting process prior to approval at each stage of development. All details of the process and the opportunities for engagement are outlined in the attached presentation, and will be posted as part of the process moving forward, as well.

No matter the capacity, we strongly encourage all to participate in this process. For further information on the new effort, or to submit your expression of interest for yourself or others to participate in this new phase, please contact Keith Driver at kdriver@leadingcarbon.com. We will include monthly progress reports and updates in our IBI newsletter and send out special announcements when documents are ready for comment. To check the progress of the work at any time during this process, please visit our website at: <http://www.biochar-international.org/characterizationstandard>.

2010 Update: Presentations Now Available Online

We are pleased to have held the 3rd International Biochar Conference: IBI 2010, in Rio de Janeiro, September 12 - 15, 2010. First and foremost, we wish to thank the conference co-organizer and host organization, Embrapa, especially Etelvino Novotny, Beata Madari, and Claudia Maia who put so much work into hosting the event. We also thank all conference sponsors, presenters, and attendees for making the conference a great success.



The conference ran over the course of four days and included 85 oral presentations and 85 poster presentations, networking opportunities, side meetings, discussion groups, display booths, and a field trip opportunity to see the famous Terra Preta sites in the Amazon (see related story below). Internationally-renowned speakers covered all aspects of biochar, including production and utilization systems, field trials, commercial and user experience, policy, education, new research, Terra Preta, and future trends. The approximately 200 conference delegates included some of the leading visionaries in the biochar world, policy makers, producers, farmers and gardeners, academics, investors, development agents, and many others. We are posting presentations as they are made available by their authors as well as some conference photos at <http://www.ibi2010.org/agendaagenda>.

Seeing Terra Preta in the Amazon First Hand after IBI 2010: a Field Trip Report

By Kelpie Wilson

After the conference, about 50 participants flew to Manaus and boarded the well-appointed riverboat, Helios Gabriel on Thursday evening September 16th, 2010. Dinner and drinks provided opportunities to carry on discussions begun at the conference. The boat got underway just after midnight, motoring about 60 km upstream on the Rio Solimões to arrive at the first site on Friday morning.

The objective of the first day was to visit small farmers growing crops on Terra Preta sites at the Costa do Laranjal, the "Orange Coast". This Terra Preta site is high up on a river bluff - a Tertiary formation that never floods. These high bluffs are where most Terra Preta sites are found. They are the areas of permanent habitation - the village sites where charcoal accumulated in the soils for hundreds of generations, making Terra Preta. With the river at its dry-season lowest, it was a steep climb up the bluff to the small village on top.



The farms at this small settlement are typically 50-100 meters wide fronting the river. They extend back along the bluff for 1 km or less to a backwater that floods in high water. Our first stop was the farm of the Marinho family where agricultural extension agents are helping to optimize production in the orange and papaya orchards integrated with crops of tomato, pepper and cucumber. In all, 8 species of vegetables and fruits are produced commercially here. Most of this produce is grown on both Terra Preta and the lighter Terra Mulata soils found on the farm.

To read the remainder of this article, please see:

<http://www.ibi2010.org/field-trip-to-the-amazonexcursao-tecnica-para-a-amazonia>.

Photo courtesy of Kelpie Wilson: Arriving at the Costa do Laranjal. This Terra Preta site is high up on a river bluff - a Tertiary formation that never floods. These high bluffs are where most Terra Preta sites are found. They are the areas of permanent habitation - the village sites for hundreds of generations where charcoal accumulated in the soils, making Terra Preta.

Biochar 10-10-10 Campaign Update

There are now 23 Biochar 10-10-10 events in 11 countries events registered on the IBI site.

To see a full list, click here <http://www.biochar-international.org/sites/default/files/update%20event%20list9-28.pdf>.



Alan Page in the US is organizing an international Biochar 10-10-10 event in the form of a webinar that anyone can participate in. He is looking for experts in various aspects of biochar to present lectures in order to stimulate good discussions. There is a file page where presenters can upload papers for participants to study in advance. For more information on how to participate, contact Alan by phone at 413-323-4401 or by email: stepitupbelchertown@verizon.net.

It's not too late to organize an event. It can be as simple as inviting a few friends to gather to discuss biochar or plan a biochar project for the future. The important thing is to register your event with IBI and with www.350.org. Take a few pictures and share your action with the world.

IBI is on Facebook

To facilitate sharing ideas and stories about Biochar 10-10-10, IBI has set up a [Facebook page](#). Please come and visit us there. We have also started a [photo pool on Flickr](#) to collect all of our Biochar 10-10-10 pictures. And if you Tweet, follow us on Twitter - we are @Biochar_IBI.

Practitioner Profile: UK Biochar Research Centre (UKBRC)

By Saran Sohi

The UK Biochar Research Centre seeks to provide an evidence base to support the rational deployment of biochar for the primary purpose of climate change mitigation (particularly carbon abatement), while being driven by an understanding of how the most value can be added to it in terms of soil function. The perspective is UK-focused, but given the nature of the climate change problem, and the effect of the environment and context on the value and impact of biochar, the tools and frameworks that are being developed



have a global applicability.

Establishment and principles

The Centre was set up in 2009 with core funding for five years, sponsored by the Engineering and Physical Sciences Research Council (EPSRC) in an initiative that also tackles chemical capture of CO₂ from power station flue gases. The award was made to the University of Edinburgh, School of GeoSciences, and headed by Prof. Stuart Haszeldine. Three academics were appointed in Edinburgh to lead the research of biochar from the angle of soil science (Saran Sohi), social science (Simon Shackley) and biomass pyrolysis (Ondrej Masek) - and together, with help from the University, created the UKBRC.

As well as being inter-disciplinary, a key characteristic of UKBRC is that it is a network that from the outset sought to draw in research teams around the UK, who had significant funded research activity around biochar.

[Click here to read the remainder of the story](#)

Photo: Rapid screening assay; courtesy of Andrew Cross

Biochar Briefs - News Roundup for September 2010

In September there was one announcement of a biochar award and several in-depth news stories in major publications.

Jason Aramburu of the company Re:char won a \$260,500 prize in the Dutch Postcode Lottery Green Challenge. The award is a competition for startup companies, and all entries must have the potential to reduce greenhouse gas emissions. Re:char won the prize for its mobile biochar kiln for use in developing countries.

Notable news coverage of biochar in September included an in-depth article in the New York Times <http://www.nytimes.com/gwire/2010/09/07/07greenwire-once-lowly-charcoal-emerges-as-major-tool-for-c-4963.html?pagewanted=all> by reporter Paul Voosen of Greenwire. Voosen interviewed many biochar researchers for the article.

Another good in-depth piece with plenty of technical detail appeared in Biomass Magazine http://www.biomassmagazine.com/article.jsp?article_id=4080&q=&page=all, by reporter Anna Austin.

The press in Brazil covered the 3rd International Biochar Conference with news articles published in various sources including Porta Dia De Campo <http://www.diadecampo.com.br/zpublisher/materias/Materia.asp?id=22682&secao=Vitrine>.

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 an update from the Pioneer Valley Biochar Initiative (PVBI), United States.

Pioneer Valley Biochar Initiative (PVBI)

Representatives from PVBI are planning to participate in the World Climate Day on Oct. 10 (10-10-10) where the Amherst 350 group has reserved the Amherst Town Common. They will have a biochar booth where they will offer biochar samples and show examples of plant growth with and without biochar.

The group is also working with Alan Page on 10-10-10 activities including a 24 hour biochar webinar. For more information on PVBI please see: <http://pvbiochar.org>.

Upcoming Calendar Highlights

8 - 11 October - Gasification and Biochar Workshop, ALL Power Labs; Location: Berkeley, CA, USA; More information at: <http://www.gekgasifier.com/forums/showthread.php?t=413>

9 - 11 October - International Symposium on Environmental Behavior and Effects of Biomass-derived Charcoal; Location: Hangzhou, China; More information: <http://www.iest.zju.edu.cn/biochar2010>

10 October - 10-10-10 sponsored by www.350.org. Location: international; More information on Biochar 10-10-10: <http://www.biochar-international.org/10.10.10campaign>.

16 October - Biochar: Old Technology and New Solutions, 1 day workshop; Location: Weston, Massachusetts, USA; More information: <http://www.biochar-international.org/node/1624>

31 October - 2 November - 2010 Geological Society of America (GSA) Annual Meeting; including biochar symposium; Location: Denver, CO, USA; More information: <http://www.geosociety.org/meetings/2010>

See the [IBI Calendar page](#) for more events. To add an event to the calendar, send the information to info@biochar-international.org.

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.

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Grossman, J.M., O'Neill, B.E., Tsai, S.M., Liang, B.Q., Neves, E., Lehmann, J., Thies, J.E., (2010). Amazonian Anthrosols Support Similar Microbial Communities that Differ Distinctly from Those Extant in Adjacent, Unmodified Soils of the Same Mineralogy. *Microbial Ecology* 60: 192-205.

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Moore, J.C., Jevrejeva, S., Grinsted, A. (2010). Efficacy of geoengineering to limit 21st century sea-level rise. *Proceedings of the National Academy of Sciences of the United States of America* 107: 15699-15703

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<http://www.future-science.com/doi/pdf/10.4155/cmt.10.3>.

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Yao, F.X., Arbestain, M.C., Virgel, S., Blanco, F., Arostegui, J., Macia-Agullo, J.A., Macias, F. (2010). Simulated geochemical weathering of a mineral ash-rich biochar in a modified Soxhlet reactor. *Chemosphere* 80: 724-732.

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