June 2014 News from the International Biochar Initiative

Update on the ACR Methodology for Emissions Reductions from Biochar Projects

The voluntary carbon offset Methodology for Emissions Reductions from Biochar Projects is in the final stages of the review process with Winrock International’s American Carbon Registry (ACR). The methodology development team—comprised of The Climate Trust, IBI, and The Prasino Group, are responding to the first round of comments received from a scientific peer review by a panel convened by ACR. The team anticipates responding to at least one more round of comments during the summer. Upon completion of the peer review and approval by ACR, the final methodology will be published on ACR’s website and will then be available for use by project proponents. For more information on the methodology please visit ACR’s website or contact IBI at info@biochar-international.org.

Consider Certifying your Biochar with IBI

Do you manufacture your own biochar? Do you want to provide quality and safety assurances to your biochar customers? Are you based in the United States or Canada? If so, the IBI Biochar Certification Program is for you! Based on the IBI Biochar Standards—a guiding document that provides the tools needed to universally and consistently define what biochar is, and to confirm that a product intended for sale or use as biochar possesses the necessary characteristics for safe use—we are confident that the IBI Biochar Certification Program is a defining step in creating a biochar industry.

The program, designed to assert the highest level of quality and safety, is accessible to a range of biochar manufacturers. Whether you are an existing manufacturer eager to differentiate your product in the marketplace by achieving IBI Biochar Certification for your biochar, or are simply paying close attention to the program’s evolution, begin your path to IBI Biochar Certification today by accessing the IBI Biochar Certification Program webpage which contains the necessary information to help you register your biochar, test it, and submit an application to receive IBI Biochar Certification of your product.

Biochar Briefs: News Roundup for June

We update the website daily with new articles on biochar. For more information, please see: http://www.biochar-international.org/newsbriefs.

Australia

Two thousand dung beetles were released onto ten dairy hectares on June 6 as part of a two year study in Western Australia to determine the benefits of feeding biochar to dairy cattle. In principle, the cattle will eat the biochar which will then end up in the soil as cow dung. Instead of injecting biochar into the soil with machinery, the dung beetles will fulfill that task by burying the dung. The study is based on the work of a cattle producer in the area, Mr Doug Pow, who has been feeding biochar to his cattle for three years to observe the effect of how well dung beetles can bury biochar in his pastures. (link to: http://www.abc.net.au/news/2014-06-11/dung-beetle-dairy-trial/5515130)
Germany
Maria Lohner, a gardener from Traunstein Germany has been using terra preta in her garden for many years with excellent results. Her recipe is chopped kitchen waste, biochar, stone powder for the enrichment of minerals and "effective microorganisms" for fermentation—this is then left to “rest” in an oxygen free environment for two weeks before being placed into her garden, producing extremely fertile black soils. (link to: http://www.br.de/fernsehen/bayerisches-fernsehen/sendungen/unser-land/landwirtschaft-und-forst/terra-preta108.html)

United States
The Biochar Company (creator of Soil Reef™ Biochar) recently announced that their products have sold in all 50 states in the US as well as Canada and Mexico. They are selling their biochar directly to consumers on their website and Amazon.com as well as business-to-business and private partners. (link to: http://www.digitaljournal.com/pr/1957853)

Jason Aramburu of re:char has launched a new company, Edyn, to sell solar-powered soil sensors which alert farmers to both nutrient and irrigation needs in their soil through mobile applications. Each sensor can analyze the soil in a 250-square-foot plot of land. With the profits from selling these in the United States, he plans to offer them at minimal cost to farmers in developing countries—similar to the structure used to introduce and fund biochar operations through re:char. In countries where farmers don’t have internet access, the sensors will use cell networks. (link to: http://www.nytimes.com/2014/06/08/business/planting-for-profit-and-greater-good.html?_r=0)

Ann and David Knight are creating a new business in rural Alabama by growing bamboo. Says Ms. Knight, “We are planting 100 acres in the fall in west Alabama….that’s kind of our immediate work plan. We’re going to establish an in-field nursery; there will be 25 acres of timber (moso) bamboo and 25 acres of a biomass bamboo, for two different industries.” The biomass bamboo will be harvestable in three years and will be used as a feedstock for biochar. (link to: http://kpbj.com/feature_articles/2014-06-10/first_planting_a_milestone_in_bamboo_venture)

Opportunities in Biochar
- Job postings in biochar (as well as research/educational opportunities) can be accessed at: http://www.biochar-international.org/network/jobs.
- The U.S. Department of Agriculture’s (USDA) Rural Energy for America Program (REAP) is seeking applications from rural small businesses and agricultural producers for funding to make energy efficiency improvements or to install renewable energy systems. Grant applications and combined grant and guaranteed loan applications are due by July 7. For more information, see the REAP website at: http://www.rurdev.usda.gov/BCP_ReapResEei.html
- The U.S. Department of Agriculture (USDA) announced funding availability for turning biomass material into energy. For more information, see: http://www.biochar-international.org/node/5153.
- Looking for potential grant funding? Check out the Terra Viva Grants Directory which develops and manages information about grants for agriculture, energy, environment, and natural resources in the world's developing countries at: http://www.terravivagrants.org/Home.

Upcoming Calendar Events
June 28: PASA Field Day—Biochar: Charcoal Production for Power & Fertility. Location: Pennsylvania, USA. For more information: http://www.biochar-international.org/node/5150

July 7 – 8: British Biochar Foundation: The Use and Economics of Biochar/Technology Demonstration Event. Location: Oxford, UK. For more information: http://www.biochar-international.org/node/5135


August 8: 2014 Midwest Biochar Conference. Location: Champaign, IL, USA. For more information: http://www.biochar-international.org/node/5152


September 2 – 5: Symposium on Thermal and Catalytic Sciences for Biofuels and Biobased Products. Location: Denver, CO, USA. For more information: http://www.biochar-international.org/node/4582

September 5 – 7: Bio-charfest 2014. Location: Mullumbimby, Australia. For more information: http://www.biochar-international.org/node/5156


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

Regional Group Updates

To read more on the 57 regional and national biochar groups, please see IBI's website (link to: http://www.biochar-international.org/network/communities). This month’s regional update section contains news from the British Biochar Foundation and the Illinois Biochar Group (United States).

British Biochar Foundation
The British Biochar Foundation will hold its second annual event on the 7th and 8th of July 2014, at Hawkwell House Hotel, Oxford, central England. This event aims to bring together all sides of the biochar arena, into one event lasting two days. Due to the high demand from the first event in June 2013 and anticipated changes in UK and EU legislation in the not too distant future, over 200 delegates are expected to attend. For more information, please see: http://www.biochar-international.org/node/5136.

Illinois Biochar Group (United States)
Registration is currently open for the 2nd annual Midwest Biochar Conference, which will be held at the Hilton Garden Inn in Champaign, IL, on Friday, August 8th, 2014. The registration fee is $75, and only $30 for students. Registration for the conference closes on July 28, and space is limited. The speaking agenda has been set but there are still poster slots available, and the organizers will be accepting poster submissions until the agenda is full on a first-come, first-serve basis. To register for the conference, submit a poster, view the agenda, or more information, please see: http://www.biochar.illinois.edu/conference/index.html.

Recently Published Biochar Research

IBI tracks all published research on biochar and includes it in our online bibliography. 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 infringement laws, 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.


Brewer, Catherine E.; Victoria J. Chuang; Caroline A. Masiello; Helge Gonorremann; Xiaodong Gao; Brandon Dugan; Laura E. Driver; Pietro Panzacchi; Kyriacos Zygiourakis; Christian A. Davies (2014). New approaches to measuring biochar density and porosity. Biomass and Bioenergy.


Demisie, Walelign; Zhaoyun Liu; Mingkui Zhang (2014). Effect of biochar on carbon fractions and enzyme activity of red soil. CATENA.


Helian Li, Ronghui Qu, Chao Li, Weilin Guo, Xuemei Han, Fang He, Yibing Ma, Baoshan Xing (2014). Selective removal of polycyclic aromatic hydrocarbons (PAHs) from soil washing effluents using biochars produced at different pyrolytic temperatures. Bioresource Technology.


Hui He, Ting-Ting Qian, Wu-Jun Liu, Hong Jiang, Han-Qing Yu (2014). Biological and chemical phosphorus solubilization from pyrolytical biochar in aqueous solution. Chemosphere.


Kim, Pyoungchung; Daniel Hensley; Nicole Labbé (2014). Nutrient release from switchgrass-derived biochar pellets embedded with fertilizers. Geoderma.


Kluepfel, Laura; Marco Keiluweit; Markus Kleber; and Michael Sander (2014). Redox properties of plant biomass-derived black carbon (biochar). Environmental Science & Technology.

Kraiem, Takwa; Hammam Lif- Tunisia; Ben Hassen-Trabelsi, Aida; Naoui, Slim; Belayouni, Habib (2014). Characterization of syngas and bio-char: Co-products from pyrolysis of waste fish fats. Renewable Energy Congress (IREC).

Le Brech, Yann; Luc Delmotte; Jesus Raya; Nicolas Brosse; Sadio Cissé; Thierry Ghislain; Sébastien Leclerc; Yassine Elmay; Roger Gadiou; Guillain Mauviel; Colin Snape; Anthony Dufour (2014). The mechanism of biomass pyrolysis revealed by various analytical methods. HAL; http://hal.archives-ouvertes.fr/hal-00992460/.


Liyang Sun, Lu Li, Zhaozhi Chen, Jinyang Wang, Zhengqin Xiong (2014). Combined effects of nitrogen deposition and biochar application on emissions of N2O, CO2 and NH3 from agricultural and forest soils. Soil Science and Plant Nutrition.

Manyà, Joan J.; Miguel A. Ortigosa; Sergio Laguarta; José A. Manso. Experimental study on the effect of pyrolysis pressure, peak temperature, and particle size on the potential stability of vine shoots-derived biochar. Fuel.


Rajapaksha, Anushka Upamali; Meththika Vithanage, Jung Eun Lim, Mohamed Bedair M. Ahmed, Ming Zhang, Sang Soo Lee, Yong Sik Ok (2014). Invasive plant-derived biochar inhibits sulfamethazine uptake by lettuce in soil. Chemosphere.

Rajapaksha, Anushka Upamali; Meththika Vithanage; Ming Zhang; Mahtab Ahmad; Dinesh Mohan; Scott X. Chang; Yong Sik Ok (2014). Pyrolysis condition affected sulfamethazine sorption by tea waste biochars. Bioresource Technology.


