October 2015 News from the International Biochar Initiative

California Air Pollution Control Officers Association (CAPCOA) Approves Methodology for Emissions Reductions from Biochar Projects

IBI is pleased to announce that on September 28th the California Air Pollution Control Officers Association (CAPCOA) Board formally approved a Biochar Greenhouse Gas Quantification Protocol as an approved offset protocol within its Greenhouse Gas Reduction Exchange (GHG Rx). The Protocol—developed by IBI in partnership with The Climate Trust and The Prasino Group—was sponsored by the Placer County Air Pollution Control District (APCD). CAPCOA’s GHG Rx is a registry for GHG emission reduction credits generated in the state of California and designed to benefit participating air control districts to offset the GHG impacts of development and other activities that increase GHG emissions in their districts.

This effort marks one of the first instances globally of a biochar carbon offset methodology approved for use by entities seeking to reduce their carbon footprint. "We are ecstatic that CAPCOA’s Board has recognized the important contribution that biochar projects can make in reducing greenhouse gases while also contributing to clean air through pyrolysis of biomass that would otherwise have been burned," said IBI’s Board Chair, Marta Camps. “It is our intent that this methodology serve as demonstration of the technical requirements to produce biochar and quantify its carbon offset potential.”

The Protocol builds on work to develop a biochar carbon offset methodology for validation with the American Carbon Registry (ACR). A core component of the Protocol is the Test Method for Estimating Biochar Carbon Stability (BC$_{100}$), which uses the ratio of hydrogen to organic carbon to estimate the fraction of biochar carbon that will persist in soil for 100 years. The Protocol allows for projects that produce biochar from woody and agricultural residues in California. The Placer County APCD sought approval of the Protocol with the intention of supporting development of a biochar project in partnership with Phoenix Energy—an established biochar production equipment manufacturer—in its jurisdiction.

IBI is grateful to the Blue Moon Fund and the David and Lucile Packard Foundation for their generous financial support that enabled IBI to support this important milestone. For more information on CAPCOA’s GHG Rx and to view the Protocol, see http://www.ghgrx.org/.

Renewing Business Member: Carbon Gold; Renewing Organization Members: ICBA and Alberta Biochar Initiative

A listing of all current IBI Business and Organization Members can be found on our website. For more information on membership opportunities and benefits, or to join, please see: http://www.biochar-international.org/join. Please note, Business and Organization descriptions are submitted by each individual entity, and are not developed or written by IBI.
Carbon Gold is the world's leading biochar company. We supply value-added biochar products, biochar-making kilns and project expertise internationally. Sales of our biochar-based 'GroChar' products are growing year-over-year. Our expanding range of economical biochar-making kilns is designed for mobility, high efficiency and ease of use. Our unique low-temperature charring process can transform a wide variety of feedstocks into high-value biochar or charcoal with attractive yields. The kilns recycle and burn the charring gases so emissions are greatly reduced compared to ring or pit kilns. Please get in touch to discuss how we could help with your project.

For more information, please contact Simon Manley or Seb Burn through www.carbongold.com or at info@carbongold.com. Follow us on Twitter @CarbonGold.

The International Center for Biosaline Agriculture (ICBA) is an international, non-profit agricultural research center. Based in Dubai, the U.A.E, the center conducts applied research and development programs focused on improving agricultural productivity and sustainability in marginal and saline environments.

Established in 1999, ICBA takes innovation as one of its core principles and adopts a multi-pronged approach to addressing the closely-linked challenges of ensuring water, environment, income, food, and nutrition security. The center’s research innovations focus on assessment of natural resources, climate change adaptation, crop productivity and diversification, aquaculture and bio-energy, and policy analysis. ICBA contributes to achieving the global Sustainable Development Goals (in particular SDGs 1, 7, 12 and 13) by working on a number of technologies and innovations, including the use of conventional and non-conventional water such as saline, treated wastewater, industrial water, agricultural drainage, and seawater; water and land management technologies; and remote sensing and modeling for climate change adaptation.

Improving the generation and dissemination of knowledge is one of ICBA’s strategic objectives and the center is committed to establishing itself as a knowledge hub on sustainable management and use of marginal resources for agricultural production and environmental protection in marginal environments.

ICBA’s work reaches many countries around the world, including the Gulf Cooperation Council countries, the Middle East and North Africa, Central Asia and the Caucasus, South and South-East Asia, and Sub-Saharan Africa. For more information about ICBA, please visit www.biosaline.org.

Alberta Biochar Initiative (ABI): Lakeland College and Alberta Innovates Technology Futures (AITF) with assistance from Western Economic Diversification Canada and industry support have developed the Alberta Biochar Initiative. The ABI is intended to develop and demonstrate technologies that will enable the large scale commercial deployment of biochar products and biochar applications for the benefit of Albertans.
Established in Dec 2011, the ABI consists of small-to-medium sized enterprises (SMEs), industry, academia and government sharing information and producing and generating biochar for end-use applications including soil amendments, reclamation, remediation, horticultural growth media and conducting biochar lifecycle analysis for potential carbon sequestration applications. For more information, please contact Don Harfield at Don.Harfield@albertainnovates.ca or go to: http://albertabiochar.ca.

“Biochar – Chicken Soup for the Soil”

Reminder: Participate in the 2015 IBI Biochar Business Survey

Thank you to those businesses who have already submitted information for our annual survey used to produce the State of the Biochar Industry Report. We are conducting this survey to collect data on activities related to the commercial production, distribution, and marketing of biochar and biochar-related products and services. We plan to use the data collected in this survey to produce a 2015 State of the Biochar Industry Report. This survey should take, at most, 20 minutes to complete. The deadline for input is November 6, 2015. You may review the published results from prior years at: http://www.biochar-international.org/commercialization.

The survey is intended to gather information from three biochar business sectors: biochar production and/or sales; biochar production equipment manufacturers; and other biochar-related enterprises. Once you start the survey, you will be directed to survey questions related to your sector selection.

We recognize that many biochar enterprises want to be sure that the information they submit is private. IBI will maintain the confidentiality of all information collected in this survey. Data will be presented in aggregate for trending analysis and the only personal information shared will be basic contact information such as website and location, in order to illustrate the growth in biochar/biochar-related businesses. In addition, we are launching a 4-question anonymous survey to ask biochar producers about the volume of biochar produced and sold. To access the 2015 business survey, please go to: http://www.surveygizmo.com/s3/2260737/Biochar-Business-Survey-for-2015

November IBI Webinar Series Event: Myles Gray presents “Biochar for Stormwater Treatment: Technology Overview and Case Study Review”

Are you interested in learning about the process and effectiveness of treating stormwater with biochar? If so, this webinar is for you! IBI welcomes Myles Gray, Faculty Research Assistant at Oregon State University, for our November IBI Webinar Series event. Mr. Gray will discuss how biochar-based filtration is an emerging stormwater treatment approach and has generated significant interest among stormwater professionals, particularly for removal of dissolved contaminants including heavy metals. This presentation will include: 1) A brief introduction to biochar science and its potential application in stormwater filtration; 2) Biochar-specific design considerations for successful installations; and 3) A survey of stormwater treatment projects that have utilized biochar-based filtration with a focus on projects in the Pacific Northwest in the United States.

Registration is open now. The webinar will be held on Tuesday, November 17th at 18:00 GMT (which is 1:00p.m. Eastern Time or the time in New York City). Note: Please convert the 1:00p.m.ET start time to
Did you know that the IBI Online Biochar Training Course is Ongoing?

If you are interested in gaining more in-depth knowledge on biochar and biochar systems, consider registering for IBI’s recently launched online course, *Biochar Training for Environmental Sustainability and Economic Development*. This ten week, ongoing course provides participants an intensive training series on all aspects of biochar, presented by leading biochar experts. Participants have the opportunity to learn about best-science updates on biochar to promote the uptake of biochar production and use, and actions necessary to overcome the barriers to commercialization of the biochar industry. The course contains 19 separate lessons—each with a subject overview, a recorded audio/video presentation lasting 30 – 45 minutes (some lessons contain more than one video), and quizzes to test comprehension and retention. There is also an optional introductory presentation on the basics of biochar and the IBI so that all participants start the course with a common understanding of both. Course materials are presented in a user-friendly online format and participants can access the course at their convenience over ten weeks and will receive a certificate of completion at the conclusion of the course.

Course materials are based on presentations from the June 2014 in-person biochar training course titled, "Biochar for Environmental Sustainability and Economic Development," hosted by the University of Santiago de Compostela, Spain, and developed and presented by IBI and collaborators. For more information on member and non-member pricing and registration, please see [www.biochar-international.org/online_course](http://www.biochar-international.org/online_course).

Biochar Approved as an Ag Soil Amendment in Italy

The Italian Ministry of Agriculture has recently approved the inclusion of biochar in the list of soil amendments allowed in Italian agriculture and published the technical specifications on the Gazzetta Ufficiale, Serie Generale n° 186 del 12-8-2015.

"This is a great success for the Italian Biochar Association (ICHAR) who elaborated the technical documentation and presented the request to the Ministry of Agriculture in 2012, and for all the Italian researchers who devoted a large effort to contribute to increase our knowledge on biochar" states ICHAR's President Vittorino Crivello. "Italian agriculture is now in the position to provide an effective contribution in mitigating climate change" continues Crivello, "and we hope that this will be an example for other European countries to approve the use of biochar". For more information on the Italian Biochar Association, please see [www.ichar.org](http://www.ichar.org) or contact [info@ichar.org](mailto:info@ichar.org).
**Last Chance to Register for the *Aqueous Solutions* Training on Water Treatment using Biochar**

*Aqueous Solutions* is offering a 10-day intensive training course in water treatment using biochar. The workshop will take place from January 3-12 2016, and will be held at Pun Pun Centre for Self-Reliance, located in northern Thailand. The registration deadline is Thursday November 12, 2015.

The workshop will provide participants with comprehensive practical training in the generation and application of biochar adsorbent for control of organic chemical contaminants in low cost household and community water treatment. The course will combine lecture/discussion sessions with a great deal of participatory hands-on activities. Participants will gain technical competence in generation of biochar adsorbent using common local materials and tools, as well as methods for integration of biochar adsorption in multi-barrier treatment systems that address both biological and chemical water contaminants. See [http://aqsolutions.org](http://aqsolutions.org) for more information including how to apply to the workshop.

**Opportunities in Biochar**

- Take advantage of a free subscription to Biomass Magazine. More information is available at [http://www.biochar-international.org/node/5537](http://www.biochar-international.org/node/5537)

- Download the open access biochar book: *Biochar Culture*, by Dr Sai Bhaskar Reddy Nakka. The text highlights the use of biochar in communities and its potential for increased sustainable agriculture in smaller scale farmsteads and homes, focusing on work in India. The book can be accessed at [http://www.biocharculture.com](http://www.biocharculture.com)

- Job postings in biochar (as well as research/educational opportunities) can be accessed at [http://www.biochar-international.org/network/jobs](http://www.biochar-international.org/network/jobs)

- 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](http://www.terravivagrants.org/Home)

**Upcoming Calendar Events**

- November 15 – 18: 2015 American Society of Agronomy meeting (includes 5 biochar sessions). Location: Minneapolis, MN, USA. For more information: [http://www.biochar-international.org/node/6553](http://www.biochar-international.org/node/6553)


- March 30 – April 1, 2016: Northeast Biomass Heating Expo 2016. Location: Burlington, VT, USA. For more information: [http://www.biochar-international.org/node/7389](http://www.biochar-international.org/node/7389)

• Save the Date: August 2016. Biochar 2016: The Synergy of Science and Industry: Biochar’s Connection to Ecology, Soil, Food, and Energy. Location: Corvalis, OR, USA. For more information: http://usbi2016.org/

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](http://usbi2016.org/). 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.


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Vu, Quynh Duong; Andreas de Neergaard, Toan Duc Tran, Quan Quang Hoang, Prayuth Ly, Tien Minh Tran, Lars Stoumann Jensen (2015). Manure, biogas digestate and crop residue management affects methane gas emissions from rice paddy fields on Vietnamese smallholder livestock farms. Nutrient Cycling in Agroecosystems; DOI 10.1007/s10705-015-9746-x


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