



October 2014 News from the International Biochar Initiative

2013 – 2014 IBI Annual Report is Now Posted on our Website

[We are pleased to release our latest Annual Report](#) highlighting our activities during our fiscal year ending June 30, 2014. We especially thank all our members and supporters who have contributed to our work this year. The report provides highlights from our programs including the *IBI Biochar Certification Program*, the Biochar Carbon Offset Methodology, the first *State of the Biochar Industry Report*, and our Communications Program.

IBI Executive Director Debbie Reed states: “This year has been a big year not only for us as an organization but also for the biochar field as a whole. I have had the opportunity to observe and participate in many projects, discussions, and conferences on biochar and meet with a range of biochar stakeholders, seeing firsthand the growth in knowledge surrounding biochar as well as the acceptance of it not only for a soil amendment but also for its many other uses including air and water filtration, waste management, renewable energy, climate change mitigation, and agricultural sustainability.

We could not accomplish any of our programs without you, our network and supporters. In particular, I thank the David and Lucile Packard Foundation for their strong and continued support of the organization. I want also to thank all of IBI’s paying members, followers, contributors, and enthusiasts who are the heart of the biochar movement and the core of IBI—from our Advisory Committee Members to those on our Expert Panels as well as the many of you who contributed information to the *State of the Biochar Industry Report* or offered comments to the proposed policy revisions to the *IBI Biochar Standards V2.0*.”

To read prior Annual Reports, please see: <http://www.biochar-international.org/about>.

IBI Members Approve Policy Revisions in Version 2.0 of the *IBI Biochar Standards*

The four-week ballot period on proposed policy revisions of the *IBI Biochar Standards* ended on October 1, 2014. IBI is pleased to announce that all four revisions were approved by large majorities of IBI dues-paying members and will be published in Version 2.0 on the [IBI website](#) in the near future.

The policy revisions address: 1) testing requirements for weathered biochar (approved by an 86% majority); 2) timing of testing for post-processed biochar (approved by a 93% majority); 3) provisions for high carbon biomass ash (approved by an 82% majority); and 4) biochar sampling procedures (approved by a 93% majority). These revisions are the result of a nearly year-long process that involved a public comment period, informational webinars, two rounds of input from a group of biochar experts, and a vote by IBI membership. Throughout the process IBI sought public feedback on an ongoing basis in order to maintain transparency and consider diverse stakeholder viewpoints. [A summary of comments received during the public comment period and webinars along with IBI responses is available for review by clicking here.](#) “We are grateful to our members and stakeholders and the experts who offered their time and expertise to continue to enhance the *IBI Biochar Standards*,” stated IBI Executive Director Debbie Reed. “The *IBI Biochar Standards* provide necessary certainty and credibility to the biochar field, and we

thank everyone for their contributions and participation in helping to ensure the relevance of the standards to support the continued growth of the biochar industry.”

This is the first policy revision of the *IBI Biochar Standards*. Version 1.0 was published in May 2012, and a technical program revision (Version 1.1) was published in April 2013. The *IBI Biochar Standards* are the basis for the *IBI Biochar Certification Program*—a voluntary, self-certifying, biochar certification program administered by IBI that offers biochar manufacturers the opportunity to certify their biochar(s) as having met the minimum criteria established in the *IBI Biochar Standards*. [Please click here for more information on the IBI Biochar Certification Program.](#)

ACR Methodology for Emissions Reductions from Biochar Projects

The voluntary carbon offset [Methodology for Emissions Reductions from Biochar Projects](#), submitted for approval by the American Carbon Registry (ACR), is currently undergoing final stages of anonymous scientific peer review. The methodology development team—comprised of The Climate Trust, The Prasino Group and IBI—is currently responding to a second round of peer review comments. Upon completion of the peer review process ACR will make a final determination on approval of the methodology for future use by project proponents. For more information on the methodology please visit [ACR's website](#) or contact IBI at info@biochar-international.org.

Early Results from IBI Survey on the Global Biochar Industry

IBI recently closed a survey designed to gather data on global biochar enterprise activity in 2014. We received 80 responses from a diverse set of companies operating in all regions of the globe and those pursuing biochar-related activities including producing and selling biochar, manufacturing biochar production equipment, and more. The data collected will be further analyzed and, in conjunction with web-based research of additional biochar businesses, will be published in aggregated form in the coming months in our *2014 State of the Biochar Industry Report*. As a new feature for the 2014 report, we will include case studies of several biochar businesses which will be chosen from the survey respondents. IBI thanks all survey respondents for providing information about their biochar businesses. Click here to learn more about the survey and [State of the Biochar Industry](#) report.

November IBI Webinar Series Event: *Biochar: The Smart Way to Clean Waste with Waste*, with Dr. Isabel Lima

For our November webinar event, IBI welcomes researcher Dr. Isabel Lima of the United States Department of Agriculture (USDA) Agricultural Research Service (ARS). Registration is open now (<https://www3.gotomeeting.com/register/843744462>). You must be a dues-paying member to participate in these special events. ([If you are not an IBI member and would like to join, please click here](#)). A recording of the webinar will be available afterward in the member's-only area of our website.

The webinar will be held on Tuesday, November 11th at 1:00 p.m. Eastern Standard Time. Dr. Lima will give a presentation titled ***Biochar: The smart way to clean waste with waste***. This presentation will focus on demonstrating the versatility of biochar beyond the most commonly known applications and attributes—as a remediation agent and a great potential tool for environmental cleanup. She will highlight the feasibility of converting various agricultural residues—with a focus on animal manures—into biochars and activated biochars for environmental remediation. These will be contrasted with commercially available materials. Examples include uses in



water, air and soil remediation, demonstrating the feasibility of these biochars to be tailor made to specific applications as well as the challenges associated with the feedstocks used to make the biochars.

For more information on this webinar program, including links to prior presentations by both Dr. Steven McGreevy and Dr. Johannes Lehmann, please see: http://www.biochar-international.org/webinar_series.

Renewing IBI Business Member: Carbon Gold

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

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-on-year. Our expanding range of economical biochar-making kilns are 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.



Biochar Amended Lawn Planted in Beijing, China

Thanks to Mr. Guitong Li of the China Agricultural University for sharing information for this story.



On September 4, 2014, a one thousand square meter biochar-amended lawn was built at the River-Side Park in Beijing China at Bei-Qi-Jia, on the northern side of the city. The lawn was built by the Company of Beijing Future Town of Science and Technology and China Agricultural University. The team added 25 tonnes of biochar powder to the top 20 cm of soil prior to laying turf. The project is a component of a "high

technology demonstration project” supported by the Beijing Science and Technology Committee—the technologies demonstrated in these projects focus on environmental protection and low carbon.

In the future, the team will monitor the rate of grass growth, greenhouse gas emissions, and soil properties to evaluate the effects of biochar and will perform additional trials to create more closed loop biochar systems.

Photos: building the lawn, courtesy of China Agricultural University

For more photos of the project, please see: http://www.biochar-international.org/beijing_lawn

Biochar Briefs: News Roundup for October

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

Spain

[Two researchers from the Institute of Natural Resources and Agrobiology](#), Dr. José María de la Rosa and Heike Knicker, published research on the effects of four biochars (produced from different biomass residues) in a typical Andalusian countryside soil under controlled conditions. They analyzed the physicochemical properties and organic matter of the biochars to look at possible effects of agricultural production.

United States

[A new publication from researchers at Rice University and Colorado College](#) highlights the ability of biochar to move water in soils—specifically its ability to make clay soils drain faster and sandy soils drain slower. Brandon Dugan, a co-author, says, “We hypothesize that this is likely due to the presence of two flow paths for water through soil-biochar mixtures. One pathway is between the soil and biochar grains, and a second pathway is water moving through the biochar itself.” This research compared side-by-side tests of the water-holding ability of three soil types—sand, clay, and topsoil—both with and without added biochar. “Understanding the controls on water movement through biochar-amended soils is critical to explaining other frequently reported benefits of biochar, such as nutrient retention, carbon sequestration, and reduced greenhouse gas emissions,” says lead author Rebecca Barnes.

[Tom Vilsack, the secretary of the U.S. Department of Agriculture, announced](#) a \$91 million loan guarantee from the United States government to help build a biomass fuel and biochar production plant in Louisiana. The plant, being built by Cool Energy in Alexandria, LA is expected to be complete in 2015 with production to begin in 2016. "This is going to provide a new market opportunity for pine chips and other renewable forest material, which will help the forestry industry in the state," Vilsack said. "This biochar soil nutrient they're able to produce is really a remarkable opportunity for us not only to learn from your experience but to take this and extend the notion of biochar."

[A group of mechanical engineering students at Iowa State University](#)—Bernardo Del Campo, Juan Proano and Matthew Kieffer—are starting a company, Artichar, to sell units to produce biochar as well as the material itself. “We worked on it for two years before we actually formalized the company. We were just working on small projects,” said Kieffer, vice president of Artichar. The company has members from Brazil, Ecuador, Malaysia and the United States, and recently received a grant from the U.S. Department of Energy for \$150,000.

Opportunities in Biochar

- Submit an abstract to the biochar session, Future challenges in biochar research at European Geosciences Union (EGU) General Assembly” in Vienna, Austria. The abstract submission deadline is January 7, 2015. More information is available at: <http://www.biochar-international.org/node/5514>.

- Download a new open access biochar book: *Biochar Culture*, by Sai Bhaskar N Reddy. 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>.
- Job postings in biochar (as well as research/educational opportunities) can be accessed at: <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>.

Announcing the Third International Training Course on Biochar Production, Testing, and Application

Following the success of two prior training courses, Nanjing Agricultural University, in collaboration with the University of Newcastle and University of NSW Australia is announcing a third course to be held April 16 – 21, 2015 on the campus of Nanjing Agricultural University (NAU), in Nanjing, China.

Participants will have the opportunity to work with world-renowned biochar experts on aspects of biochar production, application, characterization, and testing and have both classroom activities as well as field trips. For more information on this event, including pricing and registration, please see: http://www.biochar-international.org/China_training_2015.

Upcoming Calendar Events

- November 2 – 5: ASA, CSSA, & SSSA International Annual Meeting. Session title: Symposium-- Biochar: What Is the Future for Industrial Production and World Usage? Location: Long Beach, CA, USA. For more information: <https://scisoc.confex.com/scisoc/2014am/webprogrampreliminary/Session13104.html>
- November 7 – 11: Biochar School: Appropriate Technology for the Small Farm. Location: Sonoma, CA, USA. For more information: <http://www.biochar-international.org/node/5338>
- November 14: Illinois Biochar Group Fall Meeting. Location: Peoria, IL, USA. For more information: <http://www.biochar-international.org/node/5474>
- November 21 – 23: Restoring Ecosystems to Reverse Global Warming. Location: Medford, MA, USA. For more information: <http://www.biochar-international.org/node/5505>
- December 10: International Perspectives on Biochar Research and Application. Location: NSW, Australia. For more information: <http://www.biochar-international.org/node/5538>

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](#). This month's reports are from the China Biochar Network (CBN) and the Illinois Biochar Group, United States.

China Biochar Network (CBN)

The 4th China biochar workshop, under the CBN, entitled, “2014 Hangzhou Biochar Workshop, Evaluation of Current Biochar Research and Its Future”, was held in Hangzhou, China, October 12 – 14, 2014. Zhejiang University, China Agricultural University and Zhejiang A&F University organized the event which

included over 40 scientists from countries such as the United Kingdom, China, Italy, Australia, New Zealand, Hong Kong, and Ireland. The aims of the workshop were to present an overview on the current state of biochar research and to host an interactive discussion for participants to exchange ideas and experiences on biochar research and projects both within China and worldwide. For the full report, please see: <http://www.biochar-international.org/conferences>.

The Illinois Biochar Group (IBG), United States

The Illinois Biochar Group will hold its fall meeting on Friday, November 14, 2014, at the USDA National Center for Agricultural Utilization Research in Peoria, IL. The meeting is an opportunity to learn about current biochar research, exchange information, and network with other biochar researchers in order to foster collaboration and promote biochar and its usage. For more information about the event, please see: <http://www.biochar.illinois.edu/event.shtml>.

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](#).

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Budania, Kavita; Janardan Yadav (2014). Effects of PGPR blended biochar and different levels of phosphorus on yield and nutrient uptake by chickpea. *Annals of Agri Bio Research*. Vol. 19 No. 3 pp. 408-412

Brijlan, Sudjana (2014). Pengaruh Biochar Dan Npk Majemuk Terhadap Biomas Dan Serapan Nitrogen Di Daun Tanaman Jagung (*Zea Mays*) Pada Tanah Typic Dystrudepts [Biochar Influence of Biomass and NPK Compound and the Absorption of Nitrogen in the Leaves Corn (*Zea Mays*) at Land Typic Dystrudepts]. *Journal Ilmu Pertanian Dan Perikanan/Journal of Agricultural Sciences and Fisheries*; <http://www.umbidharma.org/jipp/index.php/jipp/article/view/51>

Caporale, Antonio G.; Massimo Pigna, Alessia Sommella, Pellegrino Conte (2014). Effect of pruning-derived biochar on heavy metals removal and water dynamics. *Biology and Fertility of Soils*. DOI 10.1007/s00374-014-0960-5

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