

# May 2010 News from the International Biochar Initiative



27 May 2010

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## IBI 2010: Registration Now Open

The IBI 2010 International Biochar Conference is scheduled for 12-15 September in Rio de Janeiro, Brazil! The Early Bird Registration Special lasts until July 15, 2010-register early for the best rate. More information is at [www.ibi2010.org](http://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



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 on May 6. If you have misplaced that email, watch your inbox because we will be sending your code again with a conference registration reminder.

**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>.

**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>.

### **Coming soon:**

*The IBI2010 Brazil Conference science committee* will be releasing a draft agenda with confirmed speakers soon. If you have submitted an abstract for a presentation, you will hear from the organizers in the next week.

*The final Brazil Biochar Field Trip* details are being confirmed now. The field trip will be held directly after the conference, and will include a visit to some Terra Preta sites in

Manaus. More information as well as the opportunity to register for this exciting biochar/Terra Preta excursion will be posted on the conference website by mid-June, at [www.ibi2010.org](http://www.ibi2010.org).

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## Biochar Featured at White House Clean Energy Economy Forum

IBI Executive Director Debbie Reed participated in a Clean Energy Economy Forum at the White House held on Wednesday, May 5, 2010. The invitation-only event, hosted by USDA Secretary Tom Vilsack, with a welcome and introduction provided by White House Council on Environmental Quality Chair Nancy Sutley, featured discussions and a presentation on biochar.

Ken Moss, CEO of Piedmont BioProducts of Virginia, spoke on a panel on Energy Opportunities for Rural Economic Development, moderated by Secretary Vilsack. Moss discussed his company's biochar and energy project in Virginia, and spoke of the opportunities and potential for biochar projects to further rural development, mitigate climate change, and provide renewable energy resources from farm waste.

Secretary Vilsack continues to be a knowledgeable and high-profile spokesperson on the benefits of biochar for climate change mitigation and farm economic and environmental enhancements, and he highlighted the merits of biochar for rural America at the Forum.

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## Biochar Provisions in American Power Act

On May 12, US Senators Kerry and Lieberman released a discussion draft of their energy and climate bill, the American Power Act. The bill contains several important provisions to support deployment of biochar as a climate mitigation and adaptation tool.

The APA contains three specific provisions related to biochar. The first provision is under the domestic offset program, under Title II, Subtitle A - Global Warming Pollution Reduction. Eligible Projects, (Section 734, Part D - Offset Credit Program for Domestic Emission Reductions), includes "projects for biochar production and use". The second and third biochar provisions fall under Title II, Subtitle C - Achieving Fast Mitigation, Part II - Black Carbon.

For more information on the bill, visit the IBI Policy page for US policy: <http://www.biochar-international.org/policy/unitedstates>.

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## Project Profile: Burt's Greenhouses: Using Co-Generation to Heat the Facility and Produce Biochar in Canada

Burt's Greenhouses is a family owned business located in Odessa, Ontario, Canada (near Kingston). Brian Burt and Ruth Hayward started the business in 1981, and they grow and sell annuals, perennials and shrubs directly to consumers as well as through garden centers. In the winter their heating requirements are 50,000 square feet (4,600 m<sup>2</sup>) of greenhouses, heated by hot water from pyrolyzed biomass. The biomass



feedstock consists of wood waste, mostly from used shipping pallets and "clean" construction waste (i.e. wood not treated with heavy metals or other toxic substances). Brian and employee Alex English, who had previous experience with pyrolysis technology, have been inventing and modifying current hardware (and software!) to improve the efficiency and cleanliness of their continuous pyrolysis process and allow the production of biochar.

To read the remainder of this article, please see:  
<http://www.biochar-international.org/burtsgreenhouse>

*Photo: The chipped wood feedstock arrives at the facility; photo courtesy of Burt's Greenhouses*

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## Project Profile: Biochar at Heritage High, United States

*By Tom Miles*

On April 30th, IBI's Kelpie Wilson and I attended an energy fair at Heritage High School in Vancouver, Washington. For the past few months, Kelpie and I have been helping teachers and students at the school learn about biochar. Teacher Darlyn Wendlandt started the program last year when a friend told her about biochar. She knew that the kids do best with hands-on learning, so she searched the Internet for an appropriate project. She found Kelpie's presentation on her backyard biochar retort-kiln and was especially interested in the pizza oven Kelpie had incorporated in the top of the kiln. School rules prohibit open fires on school property, so she brought a group of students to her own backyard where they built and fired the retort-kiln last fall. But when the students wanted to demonstrate the project at school for the annual energy fair, they had to find an alternative to wood for firing the kiln.



Darlyn Wendlandt and teacher Jim Neiman, whose welding class fabricated the retort, saw the problem as an opportunity to demonstrate one more way that biochar could be integrated with other school projects in renewable energy. They would try using biodiesel to fire the kiln.

To read the remainder of this story, please see:  
<http://www.biochar-international.org/heritagehigh>

*Photo: Teacher Darlyn Wendlandt and students build a brick kiln around the biochar retort; courtesy of Kelpie Wilson.*

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## Biochar Briefs - News Roundup for May 2010

A number of new biochar reports, ventures and grants were announced in May, including the following:

***Cornell University Releases Feasibility Study*** - A study of the proposed Cornell University Renewable Bioenergy Initiative (CURBI), United States, found that Cornell could produce US \$2 million worth of renewable energy per year that could be used to heat and power the

Cornell greenhouses. The study began with a survey of available biomass, from food waste to animal bedding as well as dedicated wood and energy crops grown on university land within a 25-mile radius of the campus. The study estimates the lands could sustainably produce about 16,000 dry tons of organic matter annually. Plans include a slow pyrolysis plant to co-generate energy and biochar.

***Prestigious Scholarship Awarded*** - Federico Berruti, PhD candidate in Chemical Engineering at University of Western Canada, received the Vanier scholarship for his work titled, "Bio-oil and bio-char production - feedstock preparation, feeding system optimization, and novel condensation and fractionation techniques for mobile and stationary fast Pyrolysis Reactors."

***Biochar Project Receives Award from National Science Foundation and Gates Foundation*** - The Basic Research to Enable Agricultural Development (BREAD) program, co-funded by NSF and the Gates Foundation, has awarded a \$583,707 grant for a project titled: "Biochar Inoculants for Enabling Smallholder Agriculture." IBI Board Chairman, Johannes Lehmann, is the Principle Investigator. The objective of this project is to provide fundamental knowledge of how to best develop and use biochar inoculants within smallholder agriculture systems in Kenya. The project will investigate whether biochar inoculants can be developed that enhance crop growth by improving growth conditions for nitrogen fixing bacteria, plant growth promoting rhizobacteria and arbuscular mycorrhizal fungi. It is the first of its kind to embrace a full life-cycle approach to solving carbon constraints in small-holder agriculture that can be locally implemented and managed. This project will build local capacity in teaching, learning and research both in Kenya and the US.

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## IBI Website Highlight: Project Profiles

With the number of biochar projects growing worldwide, IBI is committed to sharing the struggles and successes of different types of work around the world. We profile at least 2 projects a month pulled from our IBI member project database to showcase more information on what is happening on the project level. We invite you to take a look at our past project profiles on the IBI website at:

<http://www.biochar-international.org/projects/practitioner/profiles>.

If your company or organization would like to be featured with a profile, please contact us at [info@biochar-international.org](mailto:info@biochar-international.org)

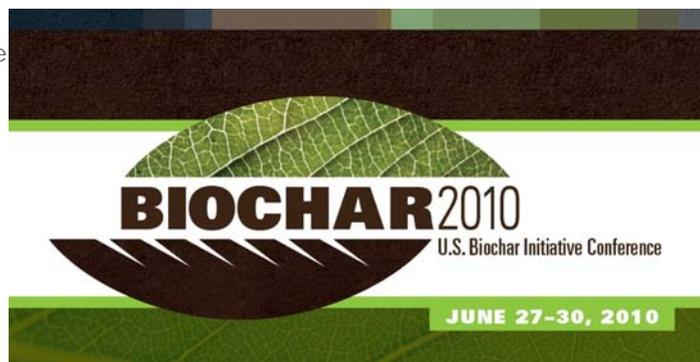
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## Early registration deadline June 1 - Biochar2010: U.S. Biochar Initiative Conference

The early registration deadline is just one week away! Take advantage of the discounted rate savings with registration by June 1.

The Biochar 2010: U.S. Biochar Initiative Conference at Iowa State University on June 27 - 30 is designed to advance our understanding of the science and policy issues related to biochar as both an agent for carbon sequestration as well as an

amendment for soils. The conference is dedicated to bringing together researchers, industry professionals, and entrepreneurs to learn of recent advances in biochar science, technology,



and policy.

**Exhibiting opportunities:** Exhibiting during the conference gives your organization an opportunity to network with over 500 conference attendees made up of scientists, engineers, policymakers, policy analysts, producers and users.

The Bioeconomy Institute of Iowa State University is lead sponsor, organizer, and host for the conference. USBI, the United States Biochar Initiative, is co-sponsor of the event. Check the website, [www.biochar2010.org](http://www.biochar2010.org), for the full program, speaker profiles, exhibitor, and sponsorship opportunities.

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## 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](http://www.biochar-international.org/network/communities). This month includes updates from Biochar Northeast (United States) and the Pioneer Valley Biochar Initiative (PVBI).

### **Biochar Northeast (United States)**

Biochar Northeast will be running a Biochar Theater at the 16th Annual SolarFest ([www.solarfest.org](http://www.solarfest.org)) in Tinmouth, Vermont July 16 - 18. In addition to the theater, Biochar Northeast will maintain an information and sales booth and make presentations in the education tents. We are looking for volunteers for our information and sales booth and for Biochar Theater demonstrations. Biochar New England will be producing more or less continuous demonstrations at the Biochar Theater. If you would like to display or demonstrate in the Biochar Theater, contact Peter Hirst at [peter@newenglandbiochar.org](mailto:peter@newenglandbiochar.org). To volunteer at the display booth, contact Doug Clayton at [dnclayton@wildblue.net](mailto:dnclayton@wildblue.net).

For more information on the group, please see: [www.biochar-international.org/regional/northeast](http://www.biochar-international.org/regional/northeast).

### **Pioneer Valley Biochar Initiative (PVBI) (United States)**

The PVBI is continuing its efforts to evaluate means for producing and using biochar with an emphasis on small farms, primarily in the Pioneer Valley of central Massachusetts. A shipment of char from a former charcoal manufacturing facility in Connecticut has been brought to the PVBI site at the New England Small Farm Institute (NEFSI). Field tests are currently underway to evaluate its potential as biochar for agricultural use. Additionally, a grant has been tentatively approved by the state to aid in the purchase of a device, probably an Adam Retort, to produce biochar to study means and economics of distribution and use.

A "Sustainability Summit" sponsored by Co-Op Power will be held in Holyoke MA on June 19. We are planning to have a booth and workshop at this event.

A "Biochar Camp" will be held at the NEFSI site in August. Users and producers of biochar throughout the Northeast will be encouraged to attend to demonstrate their procedures.

Two PVBI members had an abstract accepted for a paper to be presented on "Biochar: Mother Nature's Nanotechnology" at the Symposium on "Black Carbon as Geosorbant and Beyond" to be held at the National Meeting of the American Chemical Society in Boston, August 22-26, 2010.

For more information, please see the full PVBI update report at: [http://www.biochar-international.org/sites/default/files/PVBI\\_5.2010.pdf](http://www.biochar-international.org/sites/default/files/PVBI_5.2010.pdf).

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## Recently Published Biochar Research

IBI tracks all published research on biochar and includes it in our online bibliography: [www.biochar-international.org/biblio](http://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](mailto:info@biochar-international.org).

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