The International Biochar Initiative:

Working Together with the Global Biochar Community to Meet Pressing Challenges

Thayer Tomlinson, IBI Communications Director,
US Biochar Conference July 30, 2012
The International Biochar Initiative

Growth in the Biochar Field

IBI Programs: Supporting the Growth of the Industry
Who we are…

…a non-profit organization supporting researchers, commercial entities, policy makers, development agents, farmers and gardeners committed to sustainable biochar production and use.

Our mission…

…is to promote the development of biochar systems that follow cradle-to-cradle sustainability guidelines.
Our vision is to support the commercialization of sustainable biochar systems at all scales by 2015 that will...

- Help solve the global food security crisis and ensure soil security with the use of biochar;
- Help solve the global climate change crisis with the use of biochar; and
- Help make agricultural production at all scales more sustainable with the use of biochar.
Looking at the Growth of Biochar Worldwide: Conferences

- First biochar–specific international conference in 2007 in Australia with 107 people; since then the number of regional, national and international conferences has grown significantly—both in number and in number of attendees.
- 2012 has seen conferences already in New Zealand, Australia, Austria, Italy, Indonesia, US.
- Upcoming Events in the next few months:
  - August: Combined Heat and Biochar (CHAB camp) in US (MA)
  - September:
    - 4th Intl Biochar Conference (China)
    - Combined Heat and Biochar (US–TN)
    - Combined Heat and Biochar (Honduras)
    - Biochar Summer School (Germany)
    - Training course on Biochar Production and Testing (China)
Looking at the Growth of Biochar Worldwide: Research

- There are currently 96 dedicated biochar research institutions and programs at higher education institutes globally (that we know of) and new programs are starting constantly.

- The increase in peer-reviewed literature is also significant, we saw the following:
  - 60 published papers in 2008
  - 129 published papers in 2009
  - 140 published papers in 2010
  - 171 published papers in 2011
  - 135 to date in 2012
K-12 PROGRAMS: BIOCHAR IN SCHOOLS

Biochar is a great learning tool

You have a chance to get your hands dirty. It's an art material. It's fun to make because you get to burn stuff. It's science, and you can do valuable experiments to see how plants grow when you add biochar and other amendments to their soil—and you can learn about the carbon cycle and biochar's role in helping to slow global warming.

Teachers and students are starting to discover biochar as a wonderful new classroom project. Older kids are doing science fair projects. If your classroom is doing a biochar science project, or you know of a student who would like his or her work featured here, please contact us.

Featured Student and School Biochar Projects

Click on any for more information:

- **Biochar Project** "The Beauty of Biochar" wins first place in Science Fair, Seattle, WA, USA
- **Research on the Effect of Biochar on the Root Development of Corn and Soybeans in Minnesota Soil and Sand**
- **Biochar Program at the Dome School in Oregon, USA**
- **Biochar Production Methods Project in Bad Essen, Germany**
- **Michael Martin: Biochar Pot Trials in Pennsylvania, USA**
- **Biochar Projects at Heritage High School, Washington, USA: Creating a Biochar Program at the School**
- **Jacob Gordon, Florida, USA: Research Project on Biochar Feedstocks**
- **Jessica Kuipers and Jennine Boyce, Ontario, Canada: Making Biochar and...**
Growth in IBI Membership

- Over 3,800 registered individuals who receive electronic newsletters, updates, and information
  - a 50% increase in the past 12 months
- Nearly 380 paying members
  - Approx 10% of those registered
- Growing proliferation of biochar initiatives, research programs, and interested individuals tracks the expansion of biochar literature and general growth trends across the industry
We saw a 35% increase in visitors to the IBI website in the past 12 months, compared to the previous 12 months overall; and monthly trends show an increase from average 10,000 visits per month 6 months ago to average 14,000 visits per month now.

- Monthly, the ratio of new to returning website visitors is evenly divided (1:1).
- In the past 6 months, we have had over 80,000 unique website visits from 206 countries and territories, or nearly every country in the world, using/representing 126 languages.
- Top visits were from: US, Canada, UK, Australia, Germany, India, China, Italy, Malaysia, Philippines.
What Information are People Looking for on our Site?

- Overall information on biochar/What is Biochar?
- Technology overview
- Biochar in Soils
- Biochar Stoves
- Production Technology
- Open Source Technology
- Standards Updates
- FAQs on Biochar
- Joining IBI
- IBI Publications
- Project Profiles
Strong Growth in Regional Groups

- 45 regional and national biochar groups; of those 15 are in the United States and 4 in Canada.
- New groups recently formed in Montenegro, Florida (US), Saudi Arabia, Korea
US–based Biochar Groups

**United States:** US Biochar Initiative
- Alaska Biochar
- Biochar Association of the Bay Area
- Biochar Hawaii
- Biochar Northeast
- Florida Biochar Initiative
- Illinois Biochar Group
- Pacific Northwest Biochar Initiative
- Pioneer Valley Biochar Initiative
- Rocky Mountain Biochar Initiative
- Seattle Biochar Working Group (SeaChar)
- Sonoma Biochar Initiative (SBI)
- SouthEast Biochar Interest Group
- Terra Preta at Michigan Technological University Working Group
- UBI Hawaii
IBI Program Areas: How to Support Further Growth

- IBI Information Platform
- IBI Member Services
- Biochar Commercialization Resources
- Biochar Research Support
- Biochar Policy
- Biochar Material and Quality Standards for Soil Application
- Biochar Certification Program
- Biochar Sustainability Guidelines
- Biochar Offset Protocol Development
IBI Information Platform

- IBI Website, Newsletter, Calendar and News/Announcements
  - Tracking and communicating updates in the biochar industry and around the world
  - Reaching over 14,000 (website) and 3,800 (newsletter) on a monthly basis
IBI Member Services

- IBI Member Profiles and Directory
- Business and Association Member pages
- Regional group pages
- Member surveys
- Member social network
Biochar Commercialization Resources

IBI Publications: white papers, research summaries, extension guides, project profiles

Project Registry and Project Networking (including all scales from industrial to developing country projects)

Biochar Project Registration: Help IBI Help You!

Are you starting a biochar production company? Are you a researcher looking for funding? Are you a teacher looking to network with other schools doing biochar science projects? Are you a philanthropist or investor looking for interesting projects? The IBI Project Registry is for you!

IBI staff members get requests for information and help every day. Being at the center of this information flow has allowed us to help a number of projects get connected to resources and partners, like the National Geographic funding opportunity. Help us connect your projects to others by letting us know about your work and your needs. We invite you to fill out the IBI Biochar Project Registration form online:
http://www.sunwagyna.com/WEB/1/IBI-Biochar-Project-Database

Additionally, regional biochar groups may be operating or forming in your area; those groups focus on specific issues on a local or regional level. To look for upcoming meetings or conferences, see the IBI Calendar.

Project Profiles

Project Profiles are monthly articles in the IBI newsletter that highlight those working in biochar around the world. Please note that the inclusion of a project does not mean that IBI endorses the methods or results. All projects are subject to submission. Here are some links to IBI's:

- Biochar at Leibniz Institute of Agricultural Engineering (ATB) in Potsdam, Germany (as featured in the June 2012 Newsletter).
- A New Villager’s Tradition of Making Low Temperature Biochar (as featured in the June 2012 Newsletter).
- Creating a New Biochar Product in the Rocky Mountain Region: Bath Garden Center (United States) (as featured in the April 2012 Newsletter).
- Biochar Field Trials in Zambia, Indonesia, Malaysia and Nepal, as well as New Biochar Characterization Research From a Team in Norway (as featured in the March 2012 Newsletter).
Biochar Research Support

- Conference and meeting support and publicity
  [http://www.biochar–international.org/conferences](http://www.biochar–international.org/conferences)
- Research institution directory
  [www.biochar–international.org/research/education](www.biochar–international.org/research/education)
- Bibliography
  [http://www.biochar–international.org/biblio](http://www.biochar–international.org/biblio)
IBI’s mission includes helping facilitate the deployment of sustainable biochar production and utilization systems worldwide.

Two of the most important opportunities for the recognition of biochar as a powerfully simple tool to fight global warming are the post-2012 United Nations Framework Convention on Climate Change (UNFCCC) and energy and climate legislation and policies now being adopted in nations around the world, including in the United States and Australia.
Biochar Material and Quality Standards for Soil Application

- Developed to establish consistent, science-based, systematically collected information on the unique attributes of biochar materials that are safe for use in soil applications.
- Will provide market certainty to buyers and users of biochar, and regulatory certainty to regulators and governments concerned with safety issues, particularly as relates to amendments to be added to agricultural soils and food growing mediums.
- Developed over a 3-year period following processes established by global standard-setting programs.
- Process was open and transparent, global, and inclusive.

For more information: [http://www.biochar-international.org/characterizationstandard](http://www.biochar-international.org/characterizationstandard)
Biochar Certification Program

- Now developing an IBI Biochar Certification program; estimated launch Fall 2012
- Allows producers to officially label their biochar with an IBI logo as having met the requirements of the *Biochar Standards*.
- IBI believes that a program to certify biochar according to the *Biochar Standards* will further develop the biochar industry.
- For questions or further inquiries regarding the IBI Biochar Certification Program, please contact us at certification@biochar-international.org
IBI is developing these guidelines for biochar producers, markets, and regulators to assist in monitoring and evaluating the sustainability of existing or proposed biochar systems. Process expected to go through March 2013. A practical tool for sustainability evaluation that will have utility for different regions, feedstocks, technologies, environments and communities. Guidelines will provide self-reporting checklists that identify good, better and best practices, rather than absolute standards that require testing and certification. More info: http://www.biochar-international.org/sustainability
Biochar Offset Protocol Development: Biochar Carbon Stability Test

- One of the most relevant characteristics of biochar is its long-term stability in soil (determinant for potential as a strategy for climate change mitigation).
- As part of the Biochar Greenhouse Gas Protocol, IBI is leading an effort to identify a test methodology to assess and quantify the stability of carbon contained in biochar when applied to soil.
- Will develop a methodology for testing the stability of carbon sequestered in biochar, looking at least 100-year residence time in soil (definition of permanence in the Clean Development Mechanism (CDM) of the Kyoto Protocol, and used by most carbon markets.)
Together, We Can Achieve More

There is much we can learn from each other, and much we can do together.

WE ARE A MOVEMENT

Join us at www.biochar-international.org/join