News from the International Biochar Initiative

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

Help put the Earth Back in the Black

December 2016 News from the International Biochar Initiative for Members and Supporters

IBI Appoints New Chairman of the Board

Effective January 1st, 2017, the IBI Board unanimously elected Tom Miles to serve as the Chairman of the IBI Board. Tom has been a Board member since 2015 and has worked tirelessly to promote the biochar industry. He has been in the business of bioenergy and the design and development of uses for wood and agricultural residues worldwide for more than 40 years. He sees biochar as an important co-product of biomass for industrial and household energy, a tool for nutrient management, and a means to improve soil health. He has hosted a biochar discussion list to support biochar development since 2006.

IBI Welcomes New Board Members

With the New Year comes a few exciting changes to the IBI Board. We say goodbye to Dr. Saran Sohi who has served the board IBI since the early days of the organization. Please join us in welcoming two new Board members: Dr. Fabiana Abreu de Rezende from Brazil and Mr. Bah Saho from Cape Verde.

Fabiana has a Master's degree from Federal University of Bahia, Brazil and a doctorate from Federal University of Lavras, Brazil which focused on composting agro-industrial residues in agriculture. She is currently a researcher at Embrapa Agrossilvopastoral (Embrapa: Brazilian Agricultural Research Corporation) where her work is concentrated on biochar production and utilization in wood systems and organic fruit production. She is experienced in using biochar in substrate composition and using biochar as a soil conditioner. Fabiana is a member of the Brazilian Biochar Network and completed the International Biochar Training Course in Nanjing, China, in 2012. She organized the first and second Brazilian Biochar Training Course, which took place in Sinop, Brazil (2015) and in Lavras, Brazil (2016).

Until his appointment with ECREEE in 2010, Mr. Saho served as the Director of Energy in the Gambia from December 2000. He was responsible for the overall national energy policy planning, formulation and implementation of programmes and projects, including renewable energy and energy efficiency programmes. Some of Mr. Saho's accomplishments include development of a National Energy Policy (NEP 2005) document, formulation and enactment of Electricity Act, drafting of petroleum legislation, establishment of a framework condition for funding for renewable energy legislation and elaboration of a Household Energy Strategy document.

In ECREEE, Mr. Saho serves as a Program Officer for Renewable Energy and oversees the ECOWAS Bioenergy Program. This Program has seen improvements with the development of an ECOWAS Bioenergy Strategy to advance the uptake of sustainable Bioenergy technologies and services for improving energy access. In October 2015, the ECOWAS Region validated the Bioenergy Policy, which was adopted by the ECOWAS Ministers of Energy on the 8th December 2016 in Guinea Conakry. He is the Lead Investigator (or Coordinator) of the BiocharPlus Project at ECREEE, and at the forefront of the establishment of the Africa Biochar Partnership. He currently serves as the interim Coordinator of the Africa Biochar Partnership.

Mr. Saho holds a Master's degree (M.Sc.) in Renewable Energy and the Environment.

New and renewing organizational & business member spotlight

Note: corporate bios below were provided by members and not written by IBI

Renewing business member: Carbon Gold, United Kingdom

Carbon Gold is the world's leading biochar company. We supply value-added biochar products to organic and conventional growers in Europe and beyond. Commercial trials have shown significant yield increases using our enriched biochar blends.

We believe in the sustainable intensification of food production. Our enriched biochar products enable growers to easily introduce effective natural biology into their systems and by doing so increase yields through enhanced plant vitality.

Renewing business member: Henan Bene-Ecolife Agricultural Science and Technology Company, China

Henan Bene-Ecolife Agricultural Science and Technology Company is a comprehensive enterprise integrating technology, development, application, sales and service. The company is committed to soil health, fast recovery technology and product development, eco-agricultural/green technology, services and product development, and other fields. The company's primary technical team is professional, creative, and has participated in a scientific research project with Henan Agricultural University, Henan Agricultural Government, Institution of Pomology of CAAS, and several tobacco companies in China. This work culminated in many new scientific findings, published six papers in core journals, and applied for nine patents.

The company produces a new type of eco-char based fertilizer, which is very effective for improving soil and preventing plant soil-borne disease. The production technology and the eco-char products have been extensively used in farming—with application to more than 14,000ha since 2012.

The company created a "three-trapping technique" green prevention and control system, which achieved significant prevention and control of aphids, soil insects, Lepidoptera pests, viruses and many other pests and diseases. This technique has reduced chemical usage for pest control by 30%, and is environmental, safe, zero discharge, low-energy, also high price/performance ratio. From 2014, the total application of this system has covered more than 1400ha. For more information on the company, please visit: http://www.hnyhlk.com

New business member: Standard Bio AS, Norway

Standard Bio develops and provides profitable technical solutions to treat waste streams, creating value from waste. Our solutions reach into the agricultural sector, food industry, metal and mining industries. Our proprietary technology allows for new possibilities in the upcycling of materials which are currently stored or disposed of, often with a high cost to the businesses involved and with negative environmental impact.

Standard Bio is built on three core concepts:

1) The Kjurromat™ technology is a cyclone system that dries, grinds and separates different kinds of waste stream materials effectively and with low energy consumption.

2) Our unique pyrolysis system produce biochar from manure, wood and even waste from fish farms at a very low cost compared to existing products by utilizing heat pipe and the Kjurromat™ technology. The possibility of integrating pyrolysis systems into existing solutions, such as CHP Plant and thermal solar energy, shows great potential for Standard Bio.

3) Soil improving products in a form of foliar sprays and granulated products developed from nutrients enriched biochar and vermicompost (by combining the two abovementioned technologies). Our products are based on the concept of utilizing/exploiting problematic waste streams in agriculture – animal manure and green waste. A circular economy is created, supporting and strengthening local communities.

All three core concepts are meant to be implemented in a franchise model, creating a Standard Bio network.

New organizational member: York Region Environmental Alliance, Canada

York Region Environmental Alliance (YREA), a registered Canadian charity, initially incorporated in 2002 to advocate for a ban on the cosmetic use of pesticides in Ontario. Since then we have continually expanded our mandate to address issues that impact our health the health of our planet.
In collaboration with local municipalities, YREA's campaigns have included:

- Organic lawn care that won't cost the earth
- The idle-free community challenge
- Our ecological footprint
- Shop like the planet's watching
- Clean rivers, clean lakes = clean drinking water

As a member of numerous groups including, Alberta Biochar Initiative, International Biochar Initiative, Ontario Clean Air Alliance, Ontario Urban Forest Council, Ontario Zero Waste Coalition, Organic Council of Ontario, YREA's activities reflect concerns such as incineration, waste reduction, sustainable agriculture and climate change. During community outreach events we raise awareness of the benefits of industrial hemp farming.

Since 2012 YREA has mainly focused on expanding its biochar knowledge base and worked with consultant Peter Hirst, of New England Biochar, University of Guelph and York Region Forestry to initiate agricultural and urban tree research.

Given some very positive field trial results, YREA plans to:

- Establish a non-profit biochar social enterprise venture as a way to generate revenue for the development of our programs and to ensure organizational stability
- Market and provide biochar to local sectors within a 100 mile carbonshed radius
- Continue and expand local biochar research and uses
- Subsidize the growing of industrial hemp by purchasing hemp stalk biomass

http://www.yrea.org to check us out and sign up for our quarterly newsletters (or on facebook)

Biochar in the News

Biochar Wastewater Treatment wins Everglades Clean-up Prize
Researchers from the University of Idaho won the Stage 1 Phase 1 prize for Phosphorous Water Pollution clean-up in Everglades with their wastewater treatment technology proposal. Their solution was based on the UI-developed N-E-W Tech water treatment process which uses biochar to reduce

phosphorus concentrations in wastewater. More information on this exciting news can be found here.

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Biochar Afforestation Project in Nepal wins Adaptation at Scale Prize

Two NGOs working on afforestation projects using biochar in Nepal have been awarded prestigious *Adaptation at Scale*, Protsahan Prize. The Ithaka Institute (Nepal) and MinErgy won a stage one award qualifying them for the implementation scale-up award. To date the project is responsible for planting more than 26,000 trees with biochar based fertilizer enriched with cattle urine. The forest gardens were planted on degraded or barren lands and have helped to reduce erosion, re-establish biodiversity and improve farmer livelihoods.

Conference & Event Updates

University of Horticultural Sciences, Bagelkot, India — Paul Guire, ArSta eco

The University of Horticultural Sciences hosted its annual gathering for rural farmers at Bagelkot, Karnataka, India on December 16 - 18. Farmers from 4 neighboring States were expected to swell the turnout to in excess of 300,000 over the 3 day event. Three hundred display stands were in attendance covering all manner of agricultural products from light machinery to hybrid seeds, from Western power foods such as Jack fruit, Moringa and coconut to state of the art irrigation systems.

IBI business member, ArSta eco Pvt Ltd used the occasion to introduce biochar as a material that can address many of the issues the region is facing. Supporting their team was prominent organic produce expert Mr. Naranayan Reddy, an 82 year old self-confessed opponent of the use of chemicals to squeeze better yields from depleted soils. Sometimes 4 deep at the Arsta eco stand, farmers jostled to hear his views on biochar as a soil amendment and wood vinegar as an organic pesticide. The message was simple. He 100% endorses the use of biochar, “putting controlled amounts of carbon into the soil can only result in a healthier soil corpus and healthy soil produces healthy, nutrient rich foods.” Farmers showed an enthusiastic approach to his words and whilst many knew of the benefits carbon gives to the soil the only modus operandi known was in situ stubble burning. A resounding message was passed over “ if BioChar can be produced economically then it would be used" and they would follow the principles Mr Reddy was proposing”. Before leaving the stand many purchased 5 litre bottles of the wood vinegar promising to give feedback as to its usefulness

In a country as vast as India events like this will only serve to spread the word about the uses Biochar can be put to. Will the Bagelkot Fair be remembered as the time when the tide turned when increasing soil carbon took precedence over business as usual practices? Time only will tell but Arsta eco and an 82 year old man have a drum to bang and they intend it to be heard. Check out a video from the event here.

Finnish Biochar Seminar, Helsinki, Finland

The 3rd Finnish Biochar Seminar was held in Viikki, Helsinki on November 25th with 65 attendees from Finland, Sweden and Estonia. Details and presentations from the Seminar are available here.

Support IBI – Join or volunteer today!

Join, renew or donate to support IBI. We encourage all those that have yet to renew their membership, to do so now via the IBI website.

IBI is looking for volunteers to help us grow our organization. We are looking for assistance with membership management and growth, fundraising, updating our website and more. If you have an interest in helping, please send an email to info@biochar-international.org.

Seeking Proposals for Naming as "Global IBI Conference"

IBI is inviting proposals for a global biochar conference to be held in 2017. Organizers of national or regional conferences on biochar can apply to IBI for being named the "2017 Global IBI Conference". Only one conference is chosen each year. The deadline for proposals is January 1, 2017 with decisions being expected by February 1, 2017. Application details can be found on the IBI website.

The IBI Online Biochar Training Course is Ongoing

Gain in-depth knowledge on biochar and biochar systems. Register for IBI's 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. Learn about best-science updates on biochar, biochar production and use, how to overcome the barriers to commercialization. 19 separate lessons-each with a subject overview, a recorded audio/video presentation lasting 30 - 45 minutes and quizzes to test comprehension and retention. An optional introductory presentation on the basics of biochar allows participants to start the course with a common understanding. Course materials are presented in a user-friendly online format. 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

Upcoming Calendar Events

- ICSSM 2017 : 19th International Conference on Soil Science and Management, Durban, South Africa, January 12 - 13, 2017
- Ecological Farming Association (EcoFarm) conference, Cultivating Diversity Jan 25-28, 2017, Pacific Grove, CA @Eco_Farm
- Guelph Organic Conference January 26-19,2017, Guelph University Center, Guelph Ontario, Canada @GuelphOrganic
- Landscape Heroes: Carbon, Water & Biodiversity January 31, 2017, Amherst, MA
- Water & Wastewater Equipment, Treatment & Transport Show, February 22 – 25, 2017, Indiana Convention Center,
- BIOCYCLE EAST COAST17 Baltimore, Maryland Turf Valley Hotel, April 4, 5, 6, 7, 2017, Call For Papers Open Now
- Compost 2017 Los Angeles, CA; Jan 23 -27, 2017; US Composting Council
- The Forum for Climate Engineering Assessment is holding a workshop for non-governmental organizations on carbon dioxide removal/negative emissions technologies options, on February 8, 2017 at UC-Berkeley, California. Brian von Herzen of the Climate Foundation will be speaking about biochar, but other biochar researchers and practitioners are warmly invited to

attend. Registration information will be posted soon on their website: http://ceassessment.org/ Please contact Dr. Wil Burns for further information: wil@feronia.org

- Biochar: Production, Characterization & Applications, Alba, Italy, August 20-25, 2017; Call for Abstracts Deadline: Feb. 28, 2017

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

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