Biochar related jobs, scholarships, and volunteer opportunities

Carbofex of Tampere, Finland is looking for an Energy & Process engineer to operate a combined biochar and district heating plant and control product and process data.

Cape Breton University, Sydney, Nova Scotia, Canada is asking for applications from Chemists or Chemical Engineers for a full-time 6-month term position starting January 2018 (with potential for continuation). The Post-Doctoral Fellow will provide expert advice on chemical analysis, methodology development, and bio-product characterization; conduct chemical analyses of biochar from pyrolysis of residues; and evaluate the application performance of biochar from pyrolysis of residues compared to industry standard and leading products.

WANTED - STORYTELLER

Can you tell potential donors the IBI story to help keep funds flowing? IBI is looking to appoint an experienced Board Member (at large) that is interested in spearheading its fundraising efforts. For those interested, please send a letter of interest as well as an outline of relevant experience to info@biochar-international.org.

New and Renewing IBI Corporate Members

Note: bios below were provided by members (or from websites) and not authored by IBI

UPGRADED TO SUSTAINING MEMBER: Standard Bio

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.

**RENEWING ORGANIZATION MEMBER: York Region Environmental Alliance**

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 and 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. See YREA on the Web at [http://www.yrea.org](http://www.yrea.org) and sign up for its newsletters, or follow YREA on Facebook at [https://www.facebook.com/York-Region-Environmental-Alliance-108786649195158/](https://www.facebook.com/York-Region-Environmental-Alliance-108786649195158/).

**RETURNING BUSINESS MEMBER: Florentaise**
Florentaise is France's leading manufacturer and distributor of growing media and has been committed to sustainable development for over 15 years. The company manufactures and markets a comprehensive range of soil mixes, soil improvers and mulches. Thanks to its expertise, Florentaise can cater equally to the general public and professionals.

Florentaise has geared its strategy entirely towards sustainable development and product innovation. Fifteen years after the launch of Hortifibre®, Florentaise launched Turbofibre® and continues to innovate, notably with its biochar, commercialized under the name of Greenchar®.

Website: [www.florentaise.com](http://www.florentaise.com)

### Outcomes from COP-23 Could Affect Market for Biochar

The contributions of agriculture to mitigating climate change are gaining increasing attention among the parties to the UN Climate Change Conference. Views from each country have been solicited with a deadline of March 31, 2018 for bringing more focus to the sector’s role in refining the climate agreement and achieving national goals. This brings 195 new top-level opportunities for biochar to be recognized for the role it can play in averting climate chaos.

#### Regional Updates

**Canada**

Along with a new pellet production system, new grants are funding a pilot scale continuous pyrolysis system at the University of British Columbia to test the commercial production of biochar.

Because of their affinity with nature and sovereignty over their lands, indigenous nations can be excellent partners in projects involving climate mitigation and ecological restoration. An example is Biochar Borealis which will be a center focusing on biochar, hosting 15 full-time researchers starting in 2018. The Canadian Government provides more background.

**Europe**

Initial results of biochar trials using a Carbon Gold product on some putting greens at Okehampton Golf Club in England show significantly reduced requirements for fungicides, fertilizers and irrigation. Plans are for expanding use of biochar. David Chammings, the club’s Chairman of Greens, is so impressed that he states, “I believe that biochar will be used throughout this industry in the not too distant future.” Carbon Gold has also seen recent success in eliminating root mat in greenhouse tomatoes. According to plant pathologist Dave Kaye, Carbon Gold’s Biology Blend is “a potential treatment for ...root mat occurring in the season ahead. Further tests are planned on plants being propagated in the 2018 season.”
Biochar is among the climate solutions promoted by The Vatican in a declaration which references a recently published three-lever strategy for planetary cooling.

Swiss company Basna is opening up the market for biochar in Serbia.

Among the posters included in the 4 per 1000 initiative day held near Bonn, Germany was one on biochar with input from the Potsdam Institute for Climate Change Research, Germany; Hochschule Geisenheim University, Germany; and Ithaka Institute, Arbaz, Valais, Switzerland.

United States

The California Wood Products Working Group determined that, second to building products, biochar offers one of the most promising markets for using large volumes of small diameter trees, bark beetle-killed trees, and other forest biomass.

OMRI has added plant and animal (not manure) based biochar to its Generic Materials list for the National Organic Program of the U.S. Limits to ash content apply.

NGO Three Degrees Warmer, which specializes in facilitating aid to climate impacted communities, secured an EPA grant to train operators from the native village of Kivalina, Alaska on their new humanure Biochar Reactor, built by Biomass Controls.

America Sequesters CO2 of Clarence Center, New York has teamed up with Down To Earth — an organic home and garden products distributor out of Eugene, Oregon — to display and sell their fireplace retort, “BioCharlie”.

The Lebanon Gasification Initiative has received the 2017 project of the year honors from the Tennessee Chapter of the American Public Works Association (TCAPWA).

For many major producers, biochar is not their only product. Integrating biochar production with energy, pellet fuel, engineered soil amendments, or activated charcoal are how many industry players are achieving success. Biomass Magazine provides particulars with industry spotlights, setting the stage for a free webinar on December 7 (see events calendar below).

Smart Terra Care’s (STC) proposed project requiring $6 million in private investment to build a new biochar plant, adding 20 jobs to the local economy of Kingsbury, New York caught the interest of the county development agency. Kansas-based STC sees a good opportunity to tap waste streams from the region’s paper mills and wastewater treatment facilities to make biochar using a proprietary process. Residents voiced some concerns at a public hearing, and no authorization has been given yet.

Microbiologist Kristin Trippe is leading a new project at the USDA’s Agricultural Research Service to establish a biochar research roadmap for the ARS.
South Asia

Air pollution in Delhi has risen to extreme levels. One cause is stubble burning in nearby agricultural regions. Making biochar from the stubble is being considered as a possible remedy, as is increasingly the practice in other regions of Asia. Prof. Paul S. Anderson suggests pelletizing the stubble first, for cookstove fuel.

Southeastern Asia

Numerous Jolly Roger ovens and trough kilns are being used at the Warm Heart project in Thailand, intended to reduce open burning of crop residues. Maize stalks, rice straw, bamboo and other crop residues are converted in the field by farmers and villagers. The biochar is used directly in the fields. Positive results have created employment, income and improved soil for villagers.

South America

The twelfth Brazilian meeting on humic substances and natural organic matter was conducted at Embrapa (Sinop) during October, preceded by a one-day biochar workshop. Topics covered in the nine biochar presentations included: root growth, fertilizers, forests and wood biochar, activated biochar, applications of hydrothermal biochar, CEC, water retention, and SOM persistence.
Upcoming Calendar Events

2017

8th International Conference on Biofuels, Bioenergy & Bioeconomy
Dec 4 – 5, 2017, Sao Paulo, Brazil. Presentations from more than 30 countries and 100 organizations.

Free Webinar: Boosting the Bottom Line with Biochar
Biomass Magazine, December 7 2:30-4:30 EST Including IBI, biochar technology providers, and producers: Jim Brown, Karr Group; Jonah Levine, Confluence Energy; Tom Miles, IBI

Biochar Production, Characterization, and Environmental Applications

2018

International Biomass Conference & Expo
April 16 – 18, Atlanta, Georgia. Billed as the World’s Largest Biomass Event, expected to draw nearly 1,200 attendees. www.biomassconference.com

First International Conference on Negative CO2 Emissions

26th European Biomass Conference & Exhibition
EUBCE is a world leading event in the biomass sector, sharing the latest research results, latest developments and innovative bioenergy applications from industry and the policy context. 14 - 18 May 2018, Copenhagen, Denmark. http://www.eubce.com

4th Korea Biochar Research Center International Biochar Conference
A Look Ahead to Tours Tentatively Coming in 2018  
By Kathleen Draper

Based on the success of the first IBI Biochar Study Tour to Stockholm, Sweden, in 2017 IBI is tentatively planning at least 3 new biochar study tours for 2018. Each of these study tours will be hosted in a different country and will focus on distinct aspects of biochar production and/or uses. Current times, locations and themes for the 2018 study tours are highlighted below.

- Summer: Riedlingsdorf, Austria – Biochar production, soil amendments, livestock feed additive, carbon farming
- October: Nanjing, China – Large scale biochar production & establishing biochar field trials (for commercial, not academic purposes)
- November: Nepal – Funding, planting & maintaining forest gardens with biochar

As agendas are planned and dates finalized, this information will be shared. Participation may be limited for some tours. If you would like to pre-register (no financial commitment required) to receive future updates, please contact Kathleen Draper at webinars@biochar-international.org.

SAVE THE DATE:  The U.S. Biochar Initiative’s Biochar 2018 has been scheduled for August 20 – 23, 2018 and will be hosted at the Chase Center in Wilmington, DE. The proposed theme of the conference is “The Carbon Link in Watershed Ecosystem Services.” Further details are forthcoming.

International Biochar Initiative  www.biochar-international.org  info@biochar-international.org

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