

# September 2023 US Biochar Initiative Newsletter

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## CALL FOR SPEAKERS, ABSTRACTS AND POSTERS FOR BIOCHAR 2024

by Tom Miles, Executive Director

USBI is excited to host Biochar 2024: The North American Conference on Climate Action with Biochar for Economic and Ecosystem Resilience in Sacramento, California, USA on **February 12-15, 2024.** 

Our annual meeting is always a hotbed of listening to biochar's many voices from the fresh class of newcomers to the long-experienced biochar producers and practitioners. Biochar 2024 will present diverse perspectives on applied research, best practices, and methods for scaling biochar with a focus on real-world case studies, action plans, and climate benefits. Deliveries of biochars and biochar-based carbon credits are increasing. Learn about major projects in the works, which will produce 40,000-80,000 tons of biochar and biocarbon co-products from 200,000 tons of biomass and more, as well as improvements in mobile, inwoods, and small scale systems processing from two to ten tons of biochar per day.

**Sponsor and Exhibit.** The <u>Biochar 2024 Sponsor and Exhibitor pack</u> has been released! Click on the link to learn about how to get a booth or ways to elevate this comprehensive program through sponsorship opportunities.

Attendee registration will be opening the first week in October. Watch our website, newsletter, and social media for updates.

**Seeking Speakers, Abstracts and Posters** We welcome speaker presentations, abstracts, and posters from practitioners, carbon crediting agencies, producers, consultants, researchers, governmental organizations and industry at the local, state, and national level. We encourage you to participate! Speakers will receive a promotional discount code that will be applied to their registration fee. Biochar 2024 topic categories include:

- Climate and Carbon
- Potential of Biochar
- Policy & Finance
- Biochar Production
- Biochar End Uses

The abstracts **submission deadline has been extended to October 24th.** We encourage you to get your abstract or poster submitted. <u>Visit our website for more details</u>. For questions, <u>contact us here.</u>

Welcome to the newly formed <u>Minnesota Biochar Initiative</u>. Thanks to Nick Vetsch of Stantec, the Minnesota Composting Council, and others for launching the initiative with a lively summit and webinar.

Congratulations to Jim Doten and the **City of Minneapolis** which will be installing a new pyrolysis system in the Spring of 2024. We appreciative their leadership in demonstrating biochar's urban uses and sharing their experience with the USBI Urban Biochar Task Group.

Tom

FRESH OFF THE PRESS!
NRCS BIOCHAR FUNDING FOR CODE 336

A Quick Guide for US Producers

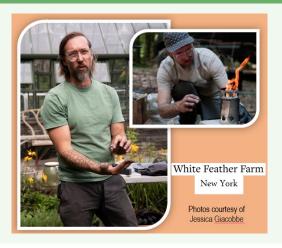
Channel. Deadlines are approaching fast.

Read soon to learn how agricultural producers can qualify for USDA NRCS funding to inoculate their soil with biochar, including:

- Criteria to be eligible for using biochar on your land.
- How to begin the application process.
- Conservation Planning.
- Pro tips on best application strategies.



This guide explains how growers can offset the costs of applying biochar.



#### MEET BILL HILGENDORF, DIRECTOR SUSTAINABILITY AND BIOCHAR WHITE FEATHER FARM, NY

Founded in 2005, New York's White Feather Farm is a 66-acre, non-profit organic farm that grows over 80 varieties of fruits, vegetables, and grains. WFF's goal is to use biochar in as many practices as possible and share their knowledge with other farms.



#### Q Tell us about White Feather Farm's history and scope.

Hilgendorf White Feather Farm NY (WFF) is located on Mohican and Munsee Lenape land in the Hudson Valley. We are in the town of Saugerties nestled between the mighty Hudson River and the idyllic Catskill mountains. With structures dating back to the early 1700s, there is a deep sense of history in this place. In addition to its crops, WFF has honey bee and maple sugaring operations, about 50 chickens, and 5 ducks.

#### Q What makes WFF unique?

Hilgendorf Since we are a non-profit organization with strong financial backing, we're able to take risks and experiment in ways that other small farms in our area are not. This includes our work with biochar which we produce on-site with our Tigercat Carbonator 6050 machine. As we all deal with challenges of a shifting climate, we can try new things and share the knowledge and techniques of successful experiments with other small farms in the Hudson Valley.

#### Q Why did you choose to produce biochar?

Hilgendorf My background is in industrial design and furniture manufacturing. I have always been interested circularity and finding ways to utilize materials or products at the end of their lifespan to create new and useful things all while telling the story of their past. When I discovered biochar, it seemed like the ultimate upcycling opportunity. When I learned about all the co-benefits of putting it in soil, I was sold! Also, we can easily make biochar from the waste material produced by Rothe Lumber, conveniently located right next to our farm.



Q How do you reassure doubters who question how biochar could mitigate climate change and believe the process adds particulate matter to the atmosphere?

Hilgendorf First of all, we need to educate people how pyrolysis is not the same as incineration. If done correctly, it should produce very little particulate as only the gasses are burned off as the biomass is heated. Second, you have to look at the alternatives if no intervention were to take place - either the biomass would decay and the gasses would return to the atmosphere or, where I am, a lot of woody biomass and other residues are burned in open piles which produce a lot more smoke and particulate than making biochar from the same material.



#### Q How much biochar are you producing and how is it used at WFF?

Hilgendorf Through our sister organization, NY Carbon, which is a partnership with Rothe Lumber, we produce about 100 cubic yards of biochar monthly. On the farm, we use it in several ways. First, we co-compost with it, so every yard of compost we produce has about 15 gallons of biochar mixed in. This allows us to inoculate the char when the compost is most active with microbial activity. We also use biochar in the chicken coups and sub soil it directly into our production beds. What I am most proud of is exploring new ways to inoculate the char while solving other problems. I recently installed an experimental biochar filtration system for our pond, and we have several biochar catchment systems set up to collect nutrient runoff from our beds.

#### Q What kind of impact has biochar had on your crop growth?

**Hilgendorf** This season was the first year we were able to use the biochar compost we created last year. We started by putting it on or garlic beds and had the best crop of garlic in 8 years of growing! We are working to expand this to every bed on the farm.

#### Q What are your future hopes for the farm?

Hilgendorf We hope to continue to work to find new and innovative uses for biochar and biochar-based products over the next few years. Our goal is to utilize biochar in as many aspects and operations on the farm as possible and continue to share the success stories so others can do the same. We can only get to gigaton scale by making as much biochar as we can and getting it in the ground or in building materials or roads or anything we can think of that will safely store it over the next few hundred years. I really believe that it is one of the most promising solutions to drawing down excess carbon that we have available.

WFF Instagram WFF on Facebook



#### **BIOCHAR FUNDING OPPORTUNITIES - Take Action Now!**

Image courtesy of pngtree.com

#### NRCS Financial Assistance for Biochar as a Soil Amendment

Through the National Resources Conservation Service's Environmental Quality Incentives Program, agricultural producers can apply for financial assistance under Practice Standard 336. Deadlines vary by state. More information here.

#### National Conservation Group Calls for Proposals for Up to \$5.75M -Due October 13, 2023

Act quickly! Concept papers from public and private entities are due October 13 for up to \$5.75 million during this first proposal phase. The National Association of Conservation Districts Climate Smart (NACD) is requesting concept papers to implement climate smart agricultural practices, including biochar as a soil amendment, a manure management strategy, and as a component of improved nitrogen management practices. Here is more about the opportunity.

#### EPA Climate Pollution Reduction Grants for Proposals to Reduce GHGs

The EPA is requesting proposals to implement programs, policies, and projects to reduce greenhouse gas emissions with a focus on areas that have not been yet been funded under BIL or IRA programs. States, municipalities, and tribes are eligible to apply by April 1, 2024 for a total of \$4.3 billion in available funds. Potential biochar proposals could focus on conversion of wastewater treatment residuals into biochar, application of biochar as a soil amendment to reduce nitrous oxide emissions, programs to pair biochar with improved forest management to reduce wildfire risk and more. More information.

NRCS Conservation Innovation Grants for Practices That Improve Soil Health - Due October 30, 2023 Grants are available for projects that deploy and evaluate innovative practices that improve soil health, such as biochar. For-profit and non-profit entities and collaborative project teams can submit applications. Please reach out to <a href="mailto:john@biochar-us.org">john@biochar-us.org</a> if you have a detailed proposal and are interested in collaborating with USBI. <a href="mailto:More information">More information</a>.

#### Biochar Samples Needed for Ongoing Research in Florida

Does your biochar self-ignite when kept fresh, dry, and/or in large quantities or has it failed the UN 4.2 test? In either case, your samples are needed to evaluate their transport safety. In return, you'll receive relevant data. Non Disclosure Agreements are available on request. For shipping instructions

and further questions, please contact <u>New Polymer Systems Co-Founder</u> and President, Joachim Roesler.



#### New Online Help to Implement NRCS 336

Conservation planners have free access to the Pacific Northwest Biochar Atlas, an online toolkit that provides decision support tools for selecting biochar types and amendment rates. The Atlas is being expanded to help conservation planners implement the NRCS Soil Carbon Amendment (CPS 336). While the tool's expanded features are being developed, USBI Board members Kristin Trippe (USDA ARS) and Josiah Hunt (Pacific Biochar Benefit Corporation) have developed an <a href="interim spreadsheet and guide">interim spreadsheet and guide</a>. If you have feedback, please contact <a href="Kristin Trippe">Kristin Trippe</a>.

#### **BIOCHAR EVENTS CALENDAR**

Oct 4 Wildfire Risk Reduction, Carbon Dioxide Removal, and Biochar: The Challenges of Scaling Up

A key theme of this virtual, National Academies event is "Current and potential utilization and markets for biochar" Register here.

Oct 4-6 WEFTEC (Water Environment Federation), Chicago - Learn from experts about the latest trends, and latest technology and trends. Register here.

**Oct 10-12** *Mulch & Soil Annual Conference*, Savannah, GA - This meeting is dedicated to owners and top managers of North America's best mulch and soil producing companies. <u>Check info and registration here.</u>

Oct 28-29 ASLA 2023 Conference on Landscape Architecture, Minneapolis, MN - Visit the USBI booth at the largest gathering of landscape architects and allied professionals in the world. See more info and registration.

Oct 29-Nov 1 ASA-CSSA-SSSA (American Society of Agronomy (ASA), Crop Science Society of America (CSSA) and Soil Science Society of America (SSSA)), St. Louis, MO - offers technical presentations, hands-on workshops, networking events, award ceremonies, and field tours. More information here.

Oct 30-Nov 1 Processing Technologies for the Forest & Biobased Products Industries Conference, St. Simons Island, Georgia - attracts technical managers, product and process engineers and academics and features the latest research and advancements. Register here.

**Nov 7-Nov 9 Scaling the Biochar Industry to Cool a Boiling Planet** Join International Biochar Initiative for their third annual IBI virtual symposium. This three-day collaborative, virtual event will focus on global biochar industry opportunities, learnings, and state-of-play. Get on the list by filing an interest form.

**February 12-15** *Biochar 2024: North American Biochar Conference*, Sacramento, CA Join leading industry experts to discuss the latest biochar science, application methods, material trends, government programs, and economic drivers building green biochar jobs! Watch these newsletters and our social media channels for registration information, sponsor opportunities, exhibitor rates, lodging options, and much more. Interested in sponsorship or exhibit space? <a href="Email us here">Email us here</a>.



**February 13-15, 2024** *World Ag Expo*, Tulare, CA - one of the largest ag shows in world in the world with more than 1,200 exhibitors, tickets under \$20

**February 25-28, 2024** *IECA Annual Conference & Expo*, Spokane hosted by the Washington International Erosion Control Association. Attend presentations by industry experts about cutting-edge practices.

**March 4-6, 2024** <u>International Biomass Conference and Expo</u> Richmond, VA (BBI International) Themes range from production efficiency, planning, boiler optimization, and laboratory techniques to the assessment of the impact of the Inflation Reduction Act.

**March 19-21**, <u>2024 North American Carbon World</u>, San Francisco, CA (BBI International) Explore carbon markets through educational sessions, collaboration, and networking.

**April 8-11, 2024** *National Watershed and Stormwater Conference*, Kansas City, MO provides a forum for watershed and stormwater professionals nationwide to learn how to increase community resilience in response to emerging and persistent threats to our water resources. Register now.

#### SCROLL DOWN TO SEE MORE NEED-TO-KNOW BIOCHAR NEWS!

- USBI Board Member Corner Debbie Aller
- Sponsorship Opportunities
- Outreach and Education
- Biochar Newsbytes
- Biochar Jobs!

# **USBI BOARD MEMBER CORNER Debbie Aller** PhD, Extension Associate, Cornell University

USBI is so grateful to the many talented, experienced, biochar pioneers who serve on our Board.

As program coordinator for the New York Soil Health Initiative, Debbie conducts applied research and coordinates extension and outreach activities that assist agriculture producers in improving the health of their farms soil by using sustainable soil management practices. Debbie offers an in-depth research background in biochar and other organic amendments and expertise in working with vegetable, perennial fruit, and nursery growers.

She earned her M.Sc. in Environmental Science and International Development from the University of Edinburg and PhD in Soil Science from Iowa State. University.



Debbie Aller PhD Soil & environmental scientist at Cornell University

#### **OUTREACH & EDUCATION**

## Biochar Industry Market Survey - Look for It in Your Email!

USBI, along with the International Biochar Initiative, and the US Endowment for Forestry & Communities, are working on a joint biochar market survey to develop key industry metrics, identify top USBI priorities, and improve industry collaboration.

**Thanks in advance** for completing the survey which you will receive via email soon. We are planning survey results for late October 2023 with a final report during Q1 2024.

Together we are building great opportunities from the ground up!

#### **Biochar 2024 Abstracts Due October 24!**

Don't miss this chance to have your voice heard by sharing your research, experience, or business idea.

Now is the time to submit your abstract and poster for USBI's premier, annual event.

Join us in Sacramento, CA. February 12-15, 2024.

Submit using our Meetinghand abstract form.



#### **Sponsorship Opportunities - Biochar In the Woods**

USBI is offering sponsorship opportunities for the Biochar In the Woods monthly webinar series and discussion forum. Your support will help us bring this program to a wider audience.

Sponsor levels start at only \$500 per month.

Contact john@biochar-us.org for information.



This program supports forestry professionals, ecologists, and fire service professionals.

It includes webinars and monthly online forums to assist the conversion of stranded biomass from fuels reduction and thinning to biochar which can be used in forest management in applications like revegetation and stream restoration.



## Looking for biochar industry career opportunities?

<u>Check out LinkedIn</u> for sales, research, and internship postings and more!



#### **NEWSBYTES**

being economical.



Biochar-infused Concrete: A Green Solution for Corporate Sustainability This article in "Cement and Concrete Composites" touts the physical and ecological benefits of adding biochar to concrete. It highlights the potential of biochar in significantly reducing the carbon footprint of the construction industry while also

#### Slow Pyrolysis Machine First of Its Kind in

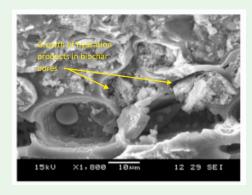
<u>US</u> The Sitos Group's unique pyrolysis system at a winery-based operation in Monterey, CA handles 1000kg (2.2 tons) of feedstock (agriculture, forestry, vineyard waste, etc.) per hour, resulting in a 30% biochar production rate.

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Conservation planners have free access to the Pacific Northwest Biochar Atlas, an online toolkit that provides decision support tools for

<u>USDA Forest Service Invests Over \$1 Million in</u> <u>Washington and Oregon</u> Some of the forest restoration practices funded involve mitigating fuel loads by creating biochar with Air Curtain burners.

A "Double Shot" of Strength: How Used Coffee
Grounds Reinforce Concrete
grounds biochar to concrete, turning waste into strength.



Courtesy of "Cement and Composites"

selecting biochar types and amendment rates. The Atlas is being expanded to help conservation planners implement the NRCS Soil Carbon Amendment (CPS 336). While the tool's expanded features are being developed, USBI Board members Kristin Trippe (USDA ARS) and Josiah Hunt (Pacific Biochar Benefit Corporation) have developed an interim spreadsheet and guide. If you have feedback, please contact Kristin Trippe.

#### **About Guideline Factsheets**

Factsheets are part of a suite of biochar materials created through a USBI partnership with UNL and made possible by a US Forest Service Wood Innovation Grant.



### Useful Biochar Fact Sheets on our USBI Learning Center

- Plant Survival
- Compost Benefits
- Manure Management
- Stormwater Management
- Carbon Markets
- Application guidelines PT 1
- Beyond Application Part 2
- Guía aplicaciones PT1
- NRCS Biochar Funding

biochar suppliersequipment manufacturers

researchers

consultantsorganizations



Listings are more than just an ad - they include information about your sector, products, applications, technology, and scale of your operation.

# Only \$25

<u>Welcome to the USBI Directory!</u> Ecochar Environmental Solutions, a biochar producer, developer, and distributor providing research services in New Jersey, biochar and wood vinegar producer VGrid Energy Systems - Persist in California, and biochar producer Clean Maine Biochar.

## GET YOUR LISTING

Promotional section.

Newsletter ads reach over 5000 readers per month! Contact admin@biochar-us.org to become a sponsor.



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call 541-218-9890







#### Get your Biochar T-Shirt - Safe, Scalable and Shovel-ready!

Proceeds go to the International Biochar Initiative



**Contact INFINITESOLUTIONS** 

STAY CONNECTED







Visit biochar-us.org for more information.

USBI thanks the USDA Forest Service, Wood Innovation Program for continued support of its activities and publications. USDA is an equal opportunity provider, employer, and lender.

USBI is supported in part by The United States Endowment for Forestry and Communities, Inc. The Endowment is a not-for-profit corporation that works collaboratively with partners in the public and private sectors to advance systemic, transformative, and sustainable change for the health and vitality of the nation's working forests and forest-reliant communities.



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