



## Building Biochar Markets Together

As I settle into the Executive Director role here at USBI, our organizational focus has become increasingly clear: to drive the biochar industry forward by developing markets for physical biochar. Everything we hear confirms that developing new markets and enhancing existing ones is the primary obstacle to industry growth in North America. Indeed, this was one of the key findings of the USBI/IBI Global Biochar Market Report. It was also true during my time at Myno Carbon, and we continue to hear this from industry insiders and prospective producers during calls and at conferences. It's a challenge that USBI is well-positioned to tackle and where we believe we can make meaningful progress.

Our market development efforts will begin by prioritizing biochar as a soil amendment, biochar-enhanced fertilizer component, and stormwater management solution. These initial markets have immediate opportunities to create impact, while future expansions will target sectors like biochar in horticultural and potting media, as an additive to concrete and asphalt, in landscaping and tree care, in soil remediation and restoration, and various industrial applications. Focusing strategically on a select set of high-potential end-use opportunities allows us to lay a strong foundation for biochar's broader adoption and success.

To effectively reach these sectors, our approach will be anchored on developing high-quality technical content, widely communicating it through events and webinars to raise awareness of biochar, and supporting key research and development efforts in collaboration with universities and other trusted partners.



**Myles Gray**  
Executive Director

## USFS FUNDING ANNOUNCED

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**USDA Forest Service announces  
open grant opportunity to**

strengthen forest products  
economy and forest sector  
jobs as part of Biden-Harris  
Investing in America agenda.



Grant opportunities on the horizon! USBI is eager to support biochar companies, organizations, and practitioners in applying for the Wood Innovations Grant Program and the Community Wood [Grant Program](#). Both programs provide unique opportunities to expand biochar-related initiatives that go beyond traditional requests for capital funding. Beyond applications for facility funding, here are a few project ideas that USBI believes have the potential to secure funding under these grant program ideas:

- **Biochar-Enhanced Fertilizers:** Biochar enhanced fertilizers can reduce the procurement and deployment costs of using biochar in agriculture, while still delivering many of the same benefits as biochar as a soil amendment. Such products have been tested in laboratory settings, but more work is needed before they will be ready for broad commercial deployment. The Wood Innovations program could be a great funding source to help develop and test these products.
- **Air Curtain Carbonators:** The mobile units are some of the most cost-effective ways of producing biochar available today, particularly in cases where feedstock transportation is prohibitive. While these units are known to produce quality biochar while reducing air emissions, they have not to date been used to generate carbon removal credits, which could dramatically improve the business case for using these units. The Wood Innovations program could be a key funding source to help develop carbon removal credit validation data and tracking schemes to help support carbon removal credits for air curtain carbonators.
- **Biochar in Green Infrastructure:** Using biochar as a component of stormwater green infrastructure can improve the hydrological and water quality performance of these systems while also improving plant health. To scale the use of this approach, stormwater professionals need better applied science and guidance for this approach. The Wood Innovations program could support development of applied research efforts and guidance manuals for using biochar in stormwater management and green infrastructure.
- **Potting and Horticultural Media:** Using biochar in potting media, to replace peat or other materials, can increase media performance while also reducing the carbon intensity of greenhouse production. Major players in the potting media and horticulture industry are aware of biochar, but to increase demand there is a need for high quality applied research to identify and develop specifications for those biochars most suitable for this use. The Wood Innovations program could support this type of applied research.

These concepts reflect USBI's commitment to supporting biochar innovations that contribute to sustainable markets, environmental health, and community resilience, all of which align well with the goals of the Wood Innovations and Community Wood Grant Programs from the USFS.

More information: [USFS Press Release](#)

[Wood Innovations Grant Program Fact Sheet](#) Applications close Dec 11th.

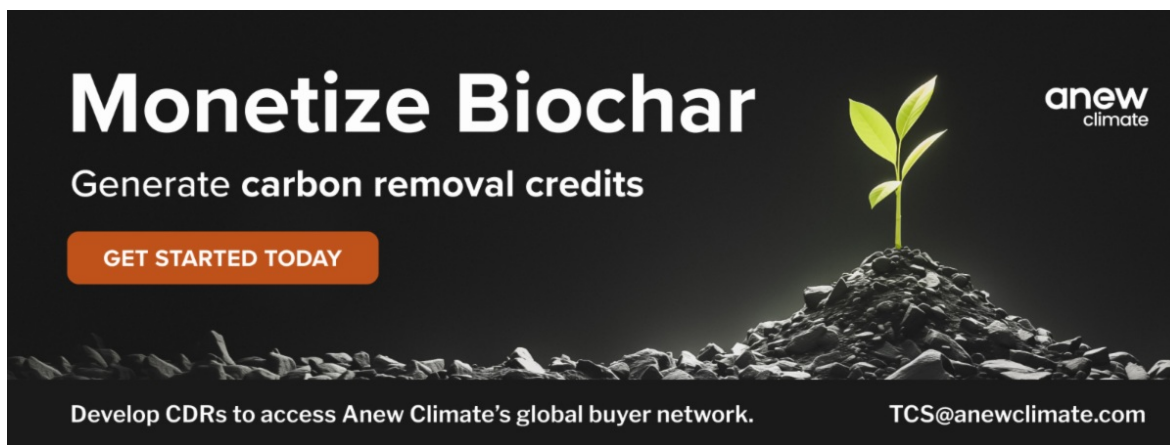
[Community Wood Grant Program Fact Sheet](#) Applications close Dec 18th.

Forest Service [webpage](#) for more information on funding for the Wood Innovations, Community Wood and Wood Products Infrastructure Assistance Grant Programs.

Contact [info@biochar-us.org](mailto:info@biochar-us.org) with questions.

Past Newsletter Archives.

Miss the September issue? No worries! Find our archive online.

An advertisement for monetizing biochar. The background is dark with a pile of biochar at the bottom. A small green seedling with three leaves grows out of the pile. The text 'Monetize Biochar' is in large white font. Below it, 'Generate carbon removal credits' is in smaller white font. An orange button with white text says 'GET STARTED TODAY'. In the top right corner, the 'anew climate' logo is visible. At the bottom, white text reads 'Develop CDRs to access Anew Climate's global buyer network.' and 'TCS@anewclimate.com'.

## NRCS Ranking Dates Deadline Fast Approaching - Act Now!

We encourage all biochar professionals to be aware of the upcoming [NRCS program Ranking Dates](#) for the areas in which they do business. Please inform your clients.

The USDA Natural Resources Conservation Service (NRCS) has set key application deadlines for conservation programs like the Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), and Regional Conservation Partnership Program (RCPP). Agricultural producers and landowners are encouraged to submit applications by their state's ranking date to qualify for program funding, which supports practices that enhance soil health, land resilience, and environmental stewardship with biochar.

The soil carbon amendment (Conservation Practice Standard Code 336) and RCPP programs are the most viable biochar adoption path for many ag producers. Application deadlines vary by state, with many happening this month and other dates spanning into early 2025. Applicants can contact local NRCS service centers for guidance on eligibility and ranking criteria.

USBI has the following reference documents and videos:

<https://biochar-us.org/code336>

<https://biochar-us.org/usda-nrcs-biochar-funding-quick-guide>

[USBI NRCS USDA 336 video series on YouTube](#)

## USDA Forest Service Biochar Webinar Series with Carlos Rodriguez-Franco, PhD



The monthly Biochar Webinar Series is a partnership with the U.S. Biochar Initiative, [Southern Regional Extension Forestry](#), and the USDA Forest Service.

**November 21st, 11 AM Eastern “**

**Biochar-based removal of emerging contaminants from recycled water used for agricultural irrigation”** the webinar will be on **November 21<sup>st</sup> at 11 am Eastern Time US**

**Details:** Recycled water is potentially hampered by the presence of contaminants, that could harm human health. Biochar-based adsorption has been widely assessed as a means of removing pollutants prior to use. Dr. Ashworth will speak about his research findings assessing biochar potential in mitigating the spread of pollutants in recycled water for agricultural production. [LINK TO JOIN.](#)

**December 12th, 11 AM Eastern**

**Biochar-based system for the removal of per- and polyfluoroalkyl substances (PFAS) from recycled water.”** On **December 12<sup>th</sup> at 11AM**

**Details:** Biochar is an effective and low-cost adsorbent for PFAS molecules, and it could be used for reducing their environmental mobility. Dr. Pia Ramos will present her research work findings about biochar properties optimization by characterization of feedstocks, pyrolysis temperature, and post-production modification to maximize PFAS retention. [LINK TO JOIN.](#)

Find the complete archive of past USBI, SREF and USFS webinars online:  
<https://biochar.forestrywebinars.net/>

# Grain empowers producers to turn waste into profit

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[Explore the USBI Biochar Slides & Presentations Archive](#)

## Biochar Events Calendar

*Connect and collaborate at in-person or online events!*

### October - December 2024

October 31 Webinar 1 of Season 11 - Join speakers [Thomas Bachmann \(biochar zero\)](#) - "Economic Aspects of Industry-Scale Biochar Production in Europe" and [Elizabeth Lee \(Carbon Cell\)](#) - "Is Black the New Green? Challenges and Opportunities in Biochar-based Functional Materials"

**31<sup>st</sup> October - Green Carbon Webinar**  
4 PM - Berlin, CEST / 3 PM - London, BST / 10 AM - New York, ET / 7.30 PM India, IST

**Economic Aspects of Industry Scale Biochar Production in Europe**  
*Thomas Bachmann*

**Is black the new green? Challenges and opportunities in developing biochar-based functional materials**  
*Elizabeth Lee*

Free registration at [www.greencarbonwebinar.org](http://www.greencarbonwebinar.org)

Over 140 GCW presentations available on their [YouTube @GreenCarbonWebinarSeries](#) To register, send email: [c.wurzer@ed.ac.uk](mailto:c.wurzer@ed.ac.uk)

### November

November 1 In-person [NAPA RCD Conservation Burning & Biochar Workshop](#) Join Napachar presents this low-smoke burning demonstration using a flame-capped system to process spent vines, thin fire fuel, and other wood waste to biochar Napa CA 1:30 -3:30 PM. [Registration link.](#)

November 5 Webinar [Defining biochar quality Essential insights for an impact-driven carbon removal strategy](#) This Supercritical webinar will dive into the factors that define high-quality biochar, offering practical guidance on how to evaluate it at the project level. 9 AM EST [Virtual event registration here.](#)

November 6 Webinar [Navigating NRCS Ranking Dates for Biochar Funding](#) Join

Ashwood Biochar speakers Brandon Smith and Marc Ricker as they discuss how to work with the NRCS to receive funding through the Environmental Quality Incentives Program (EQIP) for the application of biochar through the Soil Carbon Amendment (336) practice. 2 PM EST [Zoom Meeting Link](#)

**November 7 Webinar** [State of the Industry with John Webster of USBI.](#) Join Texas State University for this first in their Environmental Health for Economic Resilience series on Biochar. 11:30AM Central [Virtual event registration here.](#)

**November 8 Webinar:** [Practical Opportunities to Use Biochar in Composting: Research, Process, and Product Quality Insights.](#) Join another installment of AFT's Practical Biochar Implementation webinar series. Speakers will be Dr. Doug Collins (Washington State University Extension, Extension Specialist and Soil Scientist) & Jordan Lauch (Rexius, Director of Development) Friday, November 8, 2024, 12:30 p.m. Eastern Time (US and Canada) [Virtual event registration here](#)

## December

**December 5 Webinar** [Natural Resources Conservation Services Programs with Dr Candiss Williams](#) Join Texas State University for this next installment in their Environmental Health for Economic Resilience biochar series featuring [Candiss Williams, Ph.D.](#), USDA National Soil Health Specialist. 11:30AM Central [Virtual event registration here.](#)

**December 6 & 7** In-person workshop [Agraria Center Biochar Workshop](#) Yellow Springs, Ohio. Experience several biochar processes (flame-cap and gasification with power generation) for ecosystem health. Cost \$125 12/6 5pm-8pm - 12/7 9am-5pm [Registration required.](#)

## January 2025

**January 2 Webinar** [Environmental Impact](#) Join Texas State University for this third installment in their Environmental Health for Economic Resilience biochar series 11:30AM Central [Virtual event registration here.](#)



## What to Watch!

[Biochar Developer's Journey to Institutional Financing with Flowcarbon](#) | Join Will Higbee, Head of Project Finance at Flowcarbon and Bryan Eagle, CEO of Glanris discussion at Flowcarbon's CarbonSmart Summit. - Examine real-world applications of debt financing in carbon removal projects and learn how Glanris has successfully accessed debt financing to grow its business. [YouTube](#)

[Urban Trees and Biochar in Stockholm and Montpelier](#) | Locally available materials like stone and Biochar can improve urban tree growth by incredible amounts. Adam McCullough will present his first hand experience with this method as well as a review of his research into the work of Bjorn Embren of Stockholm who pioneered the process.. [YouTube - Urban Trees](#)

[Biochar and rainfall simulator study by Dr. Paul DeLaune](#) Texas A&M AgriLife - Vernon - Extension Agronomy -- The trial They tests rainfall at a rate of 3 inches per hour using rainfall simulators. This rate was used to observe water infiltration, runoff, and the effects of biochar on moisture retention in the soil. Dr DeLaune talks the aim of NRCS to establish conservation practice standards and evaluate biochar's feasibility for large-scale field application, with ongoing assessments for carbon sequestration and soil health improvement. [YouTube](#)

[Biomass Controls | 2024 NextCycle Washington Pitch](#) Biomass Controls designs biogenic refineries that convert organic waste like compostable diapers into resources such as biochar and heat. Their project seeks to establish a facility in Washington for processing absorbent hygiene products (AHP), aiming to reduce landfill waste and carbon emissions. [NextCycle Washington](#) is a circular economy project accelerator for businesses and communities within the state of Washington. [YouTube](#)

[Washington State University - From Slash Piles to Soil Health, No Smoke Required](#) presented by [Korina Stark](#) Co-host of the [Biochar On Site](#) program as supported by USBI and member of [WOW-WA](#) (Women Owning Woodlands - Washington). [Zoom archive recording.](#)



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## [Documentary - Spirit Farm - Soil to Soul Awakening](#)

James & Joyce recently held two days of workshops and meetings in Salt Lake City, Utah. □ Cultivating Soil Health Among Indigenous Growers □ Where they shared their experiences with dryland farming and are setting the foundation to build a larger community focused on building healthy soil with Indigenous ways; using compost, mulch and biochar to grow nutrient rich foods and medicine plants.

[Watch Spirit Farm on Vimeo](#)



[Spirit Farm](#) is located on ancestral lands in the desert of New Mexico at the edge of the Navajo Nation. The farm



was founded by James & Joyce Skeet to reconnect the community back to the historical, spiritual and physical practices of caring for the Earth and growing nutrient-dense food to support their community. This film is about their path which includes meaningful biochar practices.

**FILM PRODUCERS WANTED:** The Skeets are seeking funding for a documentary film on their biochar practices. Contact and donation information found on their website. [covenantpathways.org](http://covenantpathways.org)

#### CONSERVATION CONSIDERATIONS FOR SOLAR FARMS



*NRCS Conservation Practice Standards to consider when planning on solar farms: Critical Area Planting (Code 342), Conservation Cover (Code 327), Herbaceous Weed Management (Code 315), Range Planting (Code 550), Brush Management (Code 314), Windbreak-Shelterbelt Establishment and Renovation (Code 380), Diversion (Code 362), Terrace (Code 600), Heavy Use Area Protection (Code 561), Access Road (Code 560), Water and Sediment Control Basin (Code 638), Fence (Code 382), Prescribed Grazing (Code 528).*

### Biochar and Solar? We want to hear from you!

USBI is seeking information from any producers or practitioners that have experience using biochar under solar installations or with agrivoltaics. This includes with or without cropping or animal systems, as well as with or without the [NRCS Conservation Practice Standards financial incentives potentially available for solar farms](#).

We need to hear your experience with such projects. US Department of Energy projects 10.4 million acres of US solar installations by 2050. At only 1 ton per acre this market could revolutionize the biochar industry for decades to come. Let's do this! Connect with John at [info@biochar-us.org](mailto:info@biochar-us.org) to share your experience.





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## Join the USBI Directory!

We are building the most comprehensive biochar directory for the US market.

People use the directory to connect with biochar producers, suppliers, equipment manufacturers, professional service providers, labs, and financial consultants. Together we are putting the world's carbon budget back in the black!

Contact [info@biochar-us.org](mailto:info@biochar-us.org) with questions.

**Get Your Directory  
Listing!**

>>> **Check out all the recent directory additions!** <<<

[Biomass Engineering Equipment - BE&E](#)

[Earth Foundries Inc](#)

[HEMPLATA](#)

[International Tie Disposal](#)

[Local Biochar](#)

[Precision Partners](#)

[Red Mountain Biochar LLC RMS Roller-Grinder](#)



**SAVE THE DATE!**

COMPOST2025 | JANUARY 27-30, 2025 | PHOENIX, AZ

[COMPOST CONFERENCE EARLY BIRD RATES END NOVEMBER 20TH](http://compostingcouncil.org)  
[compostingcouncil.org](http://compostingcouncil.org) / [compostconference.com](http://compostconference.com) / [compostfoundation.org](http://compostfoundation.org)

## Looking for biochar industry career opportunities?

Check out LinkedIn for sales, research, internship postings, and more!  
Davey Tree hiring 2nd shift biochar production system operator.  
ECOM Latin American is hiring a Biochar Manager  
Indeed has some very good biochar jobs posted.

# MOBILE BIOCHAR PRODUCTION

CharBoss®, the world's first mobile biochar production system converts unwanted wood waste into biochar.



GET STARTED



## Biochar Newsbytes

**2025** North American  
Biochar Conference  
MINNEAPOLIS • SEPTEMBER  
15<sup>th</sup> - 18<sup>th</sup>

### HP Biochar Awarded \$250K for biochar stoves

Congratulations to Rowdy Yeats and his High Plains Biochar team for their \$250K grant award to install biochar stoves in Colorado and Wyoming to generate carbon credits. Rowdy has been pioneering small profile mid-tech systems development for years. NSF Project funded through the Colorado - Wyoming climate resilience engine.





### [Biochar Research Field Day - New Mexico State University](#)

NMSU is part of a \$1 million USDA National Institute of Food and Agriculture project testing the efficacy of a dual-function biochar that captures excess phosphorus in soils and releases it slowly to meet plant needs. NMSU cropping system agronomist Rajan Ghimire and his team measure soil properties.

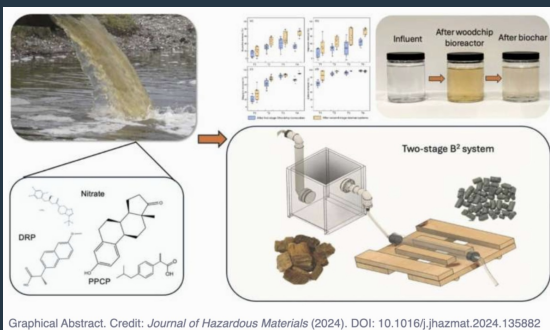
Photo by Rajan Ghimire

### [ATRA Biochar Project - Arkansas carbon venture turns sustainable forestry management residuals into market-ready product](#)

The EnviraPAC Monticello project is unique in its large scale and ability to create consistency in the quality of the biochar it produces. This industrially focused company makes a renewably engineered biochar carbon powder to provide alternatives to fossil fuel-based carbon.



Manager, John Reese, has also looked to Congress as he works to inform and educate—his mission extends from Arkansas farms to the U.S. House of Representatives. His Monticello plant has hosted Arkansas Rep. Bruce Westerman, the current chair of the House Committee on Natural Resources and a proponent of biochar. [Read the October 2024 Biochar Policy Project update from NCAT.](#)



### [Study combines woodchips and biochar to clean water of pharmaceuticals, nutrients](#)

The team developed a novel designer slow pyrolysis biochar from feedstock pretreated with lime sludge to bind phosphorus and certain PPCPs. The large surface area and composition of the designer biochar cause chemical compounds to stick and not let go.

[Direct research link.](#)

### [Sitos seeks to build \\$9M pyrolysis plant in Delano to turn almond shells into biochar and energy](#)

Local nut processor Treehouse California Almonds is working with a Sitos Group to build a \$9 million pyrolysis plant at an existing hulling and shelling plant in Delano to produce 8,000 tons per year of biochar, energy and carbon-removal credits.



PHOTO: Courtesy of WLUK

### [Green Bay Conservation Corps makes and utilizes biochar from invasive plants](#)

The Green Bay Conservation Corp celebrated National Make a Difference Day by removing buckthorn from local park which will later be processed to biochar and returned to local soils.

Green Bay has sometimes been referred to as the largest freshwater "estuary" in the world.

### [Partner News: Discover biochar with International Biochar Initiative's new online course.](#)

IBI's new online course offers a comprehensive guide to understanding biochar as a transformative technology and its applications.

IBI's courses are designed to empower biochar professionals, farmers, carbon professionals, and more with the knowledge and skills to harness the potential of biochar.



### [Partner News: IBI Manual for Biochar Carbon Removal](#)

ESGNews.com reports "A Manual for Biochar Carbon Removal" is a valuable resource for anyone involved in the biochar industry, providing the knowledge and tools needed to navigate the certification process and maximize the environmental benefits of biochar projects."

# A Manual for Biochar Carbon Removal

A comparative guide for the certification of biochar production as a carbon sink



IN COOPERATION WITH:



[Download](#) and read this 35 page biochar resource today!

## [Join the Biochar Discussion Lists](#)

Expert moderated email and web based biochar discussion list found at [biochar.groups.io](http://biochar.groups.io) and [biochar.groups.io/g/biocharinthewoods](http://biochar.groups.io/g/biocharinthewoods)

These forums are dedicated to conversations on the emerging and exciting climate-energy-soils-carbon technology called "Biochar" and the industry growing around it.



### **Practical Biochar**

**For Farms, Homesteads and Properties**

**Prelaunch**


Unlock the **practical potential of biochar**—a carbon-rich material that enhances soil health—through this course led by Kelpie Wilson, an engineer with 35 years of experience, including 16 years in biochar. You'll explore biochar's environmental benefits, its role in combating climate change, and its impact on soil health, gaining a well-rounded understanding of this regenerative technology. Ideal for anyone looking to deepen their knowledge and apply biochar to their farm, homestead, or property, this course offers valuable skills and expert insights.

January 9 - March 13 2025  
Thursdays 5pm PST, 6pm MST, 7pm CST, 8pm EST

- Session 1 - Introduction to Biochar
- Session 2 - Biochar Chemistry
- Session 3 - Making Biochar
- Session 4 - How to Design Kilns and Stoves
- Session 5 - Biochar Properties

**1 Week BREAK - Go make BIOCHAR!**

- Session 6 - Biochar for Animals
- Session 7 - Biochar and Compost
- Session 8 - Biochar in Your Garden or Farm
- Session 9 - Healing the Earth With Biochar



REGENERATIVE LIVING

## [Practical Course - Practical Biochar for Farms, Homesteads and Properties Course](#)

Regenerative Living biochar course with Kelpie Wilson.

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*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.*

*Issue editor: [John Webster](#) - USBI Communications Director*



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