

# US Biochar Initiative Newsletter

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HELP US MOVE USBI FROM A CHARITABLE CAUSE TOWARD A MEMBER ORGANIZATION AT BIOCHAR 2022 by Tom Miles, Executive Director

The North American Biochar and Bioenergy Conference in Morgantown, August 8-11, 2022 is the first opportunity since 2019 to plan our biochar future in person. Let's move USBI from a charitable cause toward a member organization driven by the synergies of Industry, academia, government, and non-governmental organizations to advance research and develop quality standards and markets.



Conference workshops offer an abundance of topics. Learn about life cycle assessments and carbon markets from Biosystems Engineering PLLC and a panel of experts. Discover how to make and use biochars from experts Norm Baker and Mike Flynn. Help organize an industry advisory committee and plan for biochar quality standards. Network in the technical sessions. See the **CharBoss** in operation.

Scroll down to the Biochar Newslinks section to see the biochar awards recently made by XPRIZE, CAL FIRE, and the USDA.

**Register for Biochar 2022 Today** 

# **REGISTRATION IS NOW OPEN**





### **BIOCHAR EVENTS CALENDAR**



June 21-23 Managing Carbon through Healthy Forests and Forest Products, Wichita, Kansas regionally focused workshops to discuss emerging trends in forestry and climate, including biochar. This inperson event will feature expert panels on the latest insights and break-out sessions to collect participant feedback on needs and the future of Great Plains forestry. USBI board members Kristin Trippe and Tom Miles will discuss benefits and opportunities for biochar. See agenda and **register here**.

August 8-11 North American Biochar and Bioenergy Conference 2022, Morgantown, WV Building bridges between scientific, industrial, practitioner, and policy gaps for using biomass for biochar and bioenergy production. <u>Register or sponsor here.</u>

Oct 24-26 Sustainable Energy for a Sustainable Future, San Jose, Costa Rica, third in a series. This ASABE (American Society of Agricultural and Biological Engineers) Global Initiative Conference will promote interdisciplinary dialogues and present regional energy innovations with a global perspective. More details are available here.



Annie Nichols US Carbon Removal Supply Manager

### MEET CARBONFUTURE

Freiburg, Germany

**Q** What are carbon removal markets? **A** Carbon removal markets help incentivize the sequestering and storing carbon from the atmosphere. Companies that emit greenhouse gasses through their operations and value chain must prioritize cutting emissions within their own operations to address the impacts of climate change. When some carbon emissions remain and are unavoidable, companies may choose to purchase carbon removal credits from a voluntary market such as Carbonfuture to further their commitment to climate positive action.



Matt Wilson Plasek US Business Development Chief

#### **Q** What are biochar carbon removal markets?

**A** Carbon removal credits also help to finance projects that store carbon, such as biochar production. Biochar stores carbon through the process of pyrolyzing biomass which creates a durable carbon sink that lasts for over 100 years. Carbonfuture started with biochar as the most mature and rapidly scaling carbon removal approach and is also helping build a pipeline of new and emerging removal technology such as carbonated concrete and enhanced weathering through its newest initiative, <u>Catalyst</u>.

#### **Q** How do biochar markets benefit the biochar producer and consumer?

**A** Carbon removal markets benefit biochar producers by offering them a new revenue stream that can be used to help fund and scale projects. Producers are compensated per ton of CO2e stored. (Although dependent on multiple factors, one metric ton of biochar will typically store approximately 2.3-2.8 metric tons of carbon dioxide equivalent (CO2e)). Applying biochar to agricultural land also has numerous cobenefits beyond carbon storage including improved soil health and water retention.



Biochar far exceeds the carbon sequestration rate for 50 trees which would need to grow for one year to capture one tonne of CO2 (according to climateneutralgroup.com).

## **Q** What does Carbonfuture's carbon credit certification process involve?

**A** We work directly with biochar producers, traders, wholesalers, and end users to ensure that Carbonfuture credits meet the highest tier of quality and value for offtake at scale. Our platform tracks carbon all the way from initial production to the final sink location guaranteeing the durability and integrity of the carbon sink. This process includes becoming certified with a rigorous thirdparty standard like the European Biochar Certificate hosted by Carbon Standards International. Once a biochar producer is certified and ready to sell credits, Carbonfuture offers longterm purchase agreements for all carbon removal credits and takes on the delivery risk to sell those

credits to contracted buyers such as Microsoft. This way the biochar producer does not have to worry about marketing their carbon credits to the end user unless they want to.

#### **Q** What makes Carbonfuture unique among its competitors?

**A** Carbonfuture is unique because of the integrity that our platform and methodology ensure. We are currently the only carbon removal market that requires a third-party audit and certification to sell credits through us. Our user-friendly platform tracks the lifecycle of carbon credits from production to sink to guarantee the highest quality credits available on the market. We also provide one-on-one support to biochar producers to ensure an easy certification and onboarding process, and we have the ability to offer unique financing tools such as pre-purchase agreements to help fund and scale projects. Biochar producers on our platform will never have to market their credits to buyers because Carbonfuture guarantees purchases of all credits that meet Carbonfuture standards.

Carbonfuture is an international start-up headquartered in Freiberg, Germany with a US hub in San Francisco. <u>Click here for more information.</u>



• Biochar Learning Center

Biochar Newslinks

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Our devoted volunteers can take our organization only so far without your generous contributions. If this newsletter makes it easy to keep current with all that is biochar, say thank you with a generous gift!

GIVE GENEROUSLY



#### USBI LEARNING CENTER

Would you like to learn more about the potential benefits of biochars, including decision support tools to select biochar types and amendment rates? Check out the <u>Pacific Biochar Atlas</u>.

Check out the recorded webinar presentations by the XPRIZE \$1 Million Climate Innovation Awards biochar winners here.

If you missed last January's USBI Biochar in the Woods Webinar,<u>the video presentations are now</u> <u>available</u>. The webinar featured over 15 speakers on project logistics and economics, environmental and social impacts, and technology development.

#### **BIOCHAR NEWSLINKS**



Biochar Teams Sweep 4 of 15 XPRIZE \$1 Million Climate Innovation Awards On Earth Day 2022, XPRIZE and the Musk Foundation announced the 15 milestone winners of \$1,000,000 each to continue their work on atmospheric carbon dioxide removal (CDR). Four (27%) of these projects are using biochar as their primary CDR method and were submitted by <u>PlantVillage</u> (Penn State University) <u>Bioeconomy Institute</u> (Iowa State University), Boston-based <u>Takachar</u>, and <u>NetZero</u> in France. See recorded presentations by the winners at the <u>June IBI Webinar</u>.

#### <u>CAL FIRE's Wood Products and Bioenergy Team Announces 30</u>

**Award Winners** CAL FIRE awards were made to candidates in late May "b facilitate the economic and sustainable management of California's forest. Four awards, totaling \$1,544,000, were for biochar projects and submitted by Earth Foundries, Atlas Tree, and San Luis Obispo (SLO) Air Pollution Control District. Here's a complete list of the winners.



USDA Awards \$32M in Wood Innovations and Community GrantsIn May, US Agriculture Secretary Tom Vilsack announced more than \$32 million to fund 2022 wood innovations and community grants. A total of 99 projects were funded to support bioenergy, biofuel and bio-based products, including biochar.

#### Iowa Legislators Ask Biden Administration to Include Crop Waste as Approved Biochar

<u>Feedstock</u> Lawmakers pointed out that NRCS Carbon Amendment Practice Standard 336 provides guidelines for U.S. Department of Agriculture cost share and incentive payments for biochar application. They stated that removing a portion of crop residue and returning biochar would be very effective at achieving the desired goals of building soil organic matter, quality and health.

**Carbon Streaming Announces Biochar Project with Restoration Bioproducts** A new approach to investments will fund a Virginia biochar production facility in to produce verified carbon removal credits (CORCs) and benefits to agriculture and rural development. The project is expected to remove over 161,000 tonnes of CO2 equivalent emissions over the 25-year project life.



**Biochar – An Ancient Technique that Is** <u>Helping California Vineyards Thrive</u> "One of the many ways we are building our soil health is by integrating the application of biochar into our vineyard management program," says Tony Chapman, Donum Estate winemaking director in Sonoma. "Carbon that the grapevines have fixed from the atmosphere for photosynthesis is removed from the carbon cycle and is banked in the soil through the biochar and other organic matter."

**Forester Dan Falk Named a Sonoma County "Climate Hero**" Dan Falk and his team at Richardson Ranch — a family-owned lumber, cattle, and wine grape operation near Cazadero, CA — is converting wood waste into biochar with the Tigercat 6050 Carbonator. Falk operates and leases the machine for special projects with an emphasis on post-fire cleanup.

**BluSky launches Carbon Capture Startup in Connecticut** BluSky partners are hatching a new business plan to turn Old Saybrook's town brush pile into biochar by capturing carbon from the dead wood before it's released into the atmosphere. BluSky's goal is to remove about 10,000 metric tons of carbon a year by 2024.





Independent Energy: Interfaith Food Ministry (IFM) Fundraises to Explore Zero Waste Option In Nevada County, California, IFM is partnering with others concerned with food and energy security, as well as carbon sequestra-tion. They are finding answers with biochar. The Bio-Burner from Organilock is the group's first step to build their integrated solution.

Interfaith Food Ministry's Phil Alonso, left, and local farmer John Pomeroy stand next to a biochar machine installed in a trailer.

• Moreau to Put Biochar Plant Under Independent Review. The Town of Moreau, NY voted to seek an independent review on environmental impacts of a proposed biochar facility that would see as many as 20 trucks per day delivering biosolids to be processed into fertilizer.

<u>University of Wisconsin Receives USDA Funding (\$185K) for Biochar Research</u>A 185,000 USDA grant will fund the completion of laboratory and field assessments for reducing nutrient losses from edgeof-field agricultural runoff treatment systems. The project is a component of a larger effort by UW-Green Bay, UW-Madison, and UW-Platteville to build biochar research capacity for nutrient and emission management at agricultural livestock facilities.

Inside Charm Industrial's Big Bet on Corn Stalks for Carbon Removal In recent weeks, a

crew of staffers from Charm Industrial have been working on the edge of Kansas corn fields, moving rolled bales of stalks, leaves, husks, and tassels up to a white semi-trailer. The startup company is using the plant matter to make biochar and bio-oil to sequester thousands of tons of carbon. The question now is how reliable, scalable, and economical this approach will prove.





#### Brookhaven Partners with UGA to Test Cascading Benefits of Biochar

The City of Brookhaven approved a one-year, \$150,000 agreement with the University of Georgia to test biochar's ability to remove nutrient-laden sediment from the water by placing biochar-filled bags at stormwater runoff discharge points. "We want to see if we can take what was going to the landfill and repurpose it as great big water filters. Then the question becomes, can the used water filters then become a type of fertilizer?"

**Restoring the Land on Kaho'olawe Through Biochar** Kaho'olawe was once home to a thriving native Hawaiian drylandforest and at least eleven wetlands. The island's native ecosystems have yet to recover from decades of military bombing, overgrazing and large wildfires. In its efforts to heal the land, the Kaho'olawe Island Reserve Commission has begun using biochar to retain more water and nutrients.

Irrigation tubing runs atop Kaho'olawe's red soil as a crew works to plant new life in the hard-packed ground (courtesy of *Wikipedia Commons*).



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