

BIOCHAR USE WITH LIVESTOCK AND POULTRY

RESEARCH AND MARKET INSIGHTS FOR LIVESTOCK PRODUCERS AND BIOCHAR PRODUCERS



The work upon which this project is based was funded in whole or in part through a grant awarded by USDA Forest Service Wood Innovations (20-DG-11083150-011). USDA is an equal opportunity provider, employer, and lender.

LINK TO WEBINAR

<https://youtu.be/EJFTMQfX4uU?feature=shared>

A Special Thanks to our Speakers...

Kathleen Draper-Finger Lakes Biochar (NY), Co-Author of Burn-Using Fire to Cool the Earth, IBI Chair, USBI Board member
Mike Callicrate-Callicrate Beef (KS) and Ranch Direct (CO)
Wayne Teel-James Madison University (VA)
Andrea Watson-University of Nebraska-Lincoln
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LINK TO DOVETAIL PARTNERS INC. REPORT

<https://dovetailinc.org/portfoliodetail.php?id=61965e2d79f76>

SUMMARY OF BIOCHAR BENEFITS

Soil Functions

Increases Infiltration/Retention
Increases CEC/AEC (up to 50%)
Increases Microbial Activity
Balances pH
Decreases Bulk Density

Water Quality

Intercept/Absorb/Assimilate
Nutrients/Heavy
Metals/Hydrocarbon
Enormous Surface Area

Biomass Upcycling

Biomass Waste (Manures)
Cropped Biomass Flexibility
Cost Effective Adsorbent

Potential Longevity

Short Term Soil Organic Carbon
(1-5 years)
Long Term Soil Organic Carbon
(100's of Years)

PROJECT OVERVIEW

Provide the research and practical experiences in support of biochar's benefits

For herd and flock managers specifically, addressing the questions of how best to take advantage of biochar with your livestock

Provides biochar producers guidance on how to serve the livestock market effectively

REPORT HIGHLIGHTS

Using biochar as a feed additive is widespread in Europe; its use has been limited in the US due to the FDA's feed additive regulations, but current research efforts and state level approvals have opened both pilot-level and production use.



A more immediate opportunity for biochar-in-livestock-operations may come from manure management. No approvals are needed and there is a large body of research and experience supporting biochar's benefits in bedding, manure management, anaerobic digestion, and compost. Most biochar will end up in the soil, where its benefits are supported by extensive research as well as being well established in practice.

1.5 million tons

of biochar would need to be made for the 250 million tons of feed for livestock consumed annually, with about 1.4 billion tons of manure produced.

A SPECIAL NOTE ABOUT USING BIOCHAR AS A FEED ADDITIVE IN THE US

In the US, the FDA regulates feed additives for livestock and approves biochar sold interstate as a feed additive on a case-by-case basis.²⁰ There are currently suppliers of biochar-for-livestock feed which are approved at the state level however many states follow the FDA approval process. Firms interested in using or selling biochar will need to check with their state feed regulation agencies to determine their best course of action. There is an exception for the use of activated charcoal from organic feedstocks (in mammals only) detailed at the end of Appendix A.

No approval is required for non-feed uses of biochar. In either event, the analysis of the biochar is important. The feedstock for the biochar needs to be clean of any potentially harmful contaminants and consistent. The testing requirements for FDA approval as well as the European Biochar Certificate are provided in Appendices A and B as information as well as providing a useful perspective on what to look for in a quality feed-grade biochar.

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Webinar Recorded: January 26th, 2022

