

Making Claims for Biochar

An
overview
of some
guidelines
for
ethical,
legal and
effective
marketing



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Biochar Marketing Questions

- How do you sell a product that takes time to prove a set of benefits that are often not well defined and that vary with soils, crops and environmental conditions?
- How do you properly substantiate your claims?
- How can you make environmental claims for biochar without running afoul of the Federal Trade Commission's Green Guidelines?
- How can AAPFCO help?
- What is biochar?
- Discussion Questions

Claims = Trouble?

“Regulators love claims. A business associate of mine made an insect repelling claim for their worm compost and was fined \$100,000 and eventually landed in court. The claim got him the fine and his ego landed him in court.

Selling char coated with hubris may suffer the same fate as above.”

– *Mike the Worm Guy, Yahoo Biochar Forum, 3-24-13*

Biochar is Special. Or is it?

- How do you sell a product that takes time to prove a set of benefits that are often not well defined and that vary with soils, crops and environmental conditions?
- Similar products – similar problems
- Dietary Supplements:
 - Benefits not well-defined
 - Take time to manifest
 - Vary with body types, age, gender, etc.
- Support for body functions – Support for soil functions:
 - Biochar is like “fiber” for the soil?
 - Biochar supports “soil pro-biotics”?

FDA Guides on Supplement Claims

- Claims that can be used on food and dietary supplement labels fall into three categories: health claims, nutrient content claims, and structure/function claims.
- Structure/function claims describe the role of a nutrient or dietary ingredient intended to affect normal structure or function in humans, for example, "calcium builds strong bones."
- The responsibility for ensuring the validity of these claims rests with the manufacturer, FDA, or, in the case of advertising, with the Federal Trade Commission.

Standards of Evidence

- Fertilizers and soil amendment claims are regulated by the 50 State governments, but the FTC could get involved in a case of “false advertising”.
- Both FDA and FTC require that claims be based on “competent and reliable scientific evidence.” This probably goes for state governments as well.
- What does that mean?
 - Cannot “cherry pick” the evidence.
 - Must look at the totality of the body of evidence.
 - Engage experts.
- Advice from an FTC lawyer: “Be as specific as possible in your claims.”

Wisdom from the biochar forum

- To evaluate claims Oregon Department of Agriculture uses “agronomic plausibility” as an initial test. Then they want to see data to back up the claims.
- Some claims, like increased pH are easy to justify. Others, like increased CEC, reduced fertilizer use, reduced leaching, or increased growth, require data.
- While we do have a significant amount of peer reviewed data to support claims for specific biochars, crops and soils, we need to match the data to the biochar in order to legally claim the benefits.

– *Tom Miles, Yahoo Biochar Forum, 3-23-2013*

FTC Green Guides

- Purpose of the Green Guides – to prevent false claims about environmental benefits of products
- Words and pictures can imply value to the consumer that it not real and is considered fraud
- FTC looks at the entire package of product labeling and advertising to determine what kind of impression it gives the consumer
- Environmental Claims for Biochar - very hard to substantiate:
 - Natural, Green, etc.
 - Sustainable
 - Carbon Negative

Example

- In August, the Coca-Cola Company was accused of overstating the environmental benefits of its PlantBottle packaging, using marketing materials that included excessive green coloring, environmentally friendly images (butterflies, flowers, etc.) and a circular logo that mimicked the universal symbol for recycling.
- In response, a high-ranking Danish consumer official requested that the multinational beverage giant revamp its pitch.

What about Sustainable certifications?

- FSC, SFI, etc.
- Certifications not recognized by FTC as bullet-proof
- Negative publicity potentially a bigger issue than legal claims
- If you are going to emphasize sustainable feedstocks, know your supply chain

FSC Blunder? Don't make it your blunder.

Forest Products Marketing Firm Commits Major Blunder in the Redwoods

Print Share

By Gary Graham Hughes
Wednesday, February 13th, 2013

Forest Stewardship Council (FSC) to certify more than 270,000 acres of climate destroying clearcuts in the Redwood Temperate Rainforest

On February 11, 2013, **Green Diamond Resource Company** (formerly Simpson Timber Company), **SCS Global Services (SCS)**, and the **Forest Stewardship Council (FSC)** issued a joint press release declaring a major milestone in the progression of forest management on California's North Coast. Unfortunately, the only major milestone here is that a once respected forest certification standard, FSC, is now squarely in danger of losing a significant measure of credibility.



FSC Certifies Clearcuts?

“Carbon Negative”

- What does it mean?
 - A “positive” negative?
 - How do you educate consumers?
 - I don't got no answers!!!
- How do you prove your biochar is carbon negative?
 - Need a full LCA – Life Cycle Assessment that includes:
 - Emissions from feedstock production
 - Emissions from land use changes
 - Emissions from transportation
 - Emission from pyrolysis
 - Etc.....

aapfco

- Fertilizers and soil amendments are regulated at the state level
- Association of American Plant Food Control Officials (AAPFCO) is a non-governmental body
- AAPFCO has written model legislation to ensure the integrity of fertilizer products and to establish uniformity of laws among the states to facilitate interstate commerce.
- AAPFCO labeling guidelines and definitions exist for:
 - Fertilizers
 - Soil Amendments (excluding lime)
 - Compost

AAPFCO Definitions

- **Fertilizer:** A fertilizer is a substance containing one or more recognized plant nutrients, and used for its plant nutrient content.
- **Soil Amendment (commonly referred to as a Soil Additive or Soil Conditioner):** Any substance or a mixture of substances which is intended to improve the physical, chemical, biochemical, biological or other characteristic of the soil, except fertilizer, agricultural liming materials, unmanipulated animal manures, unmanipulated vegetable manures, pesticides and other materials exempt by regulation.
- **Compost:** Compost is a biologically stable material derived from the composting process.

What IS Biochar?

- Not a fertilizer
 - But it can be an ingredient in fertilizer
 - Makes marketing and product claims much easier
 - If making biochar claims, follow guidelines for “special claims”
- Could be a soil amendment
 - But there are no standard soil amendment claims
 - Need to explain “purpose of the product” on the label
 - Need to provide explicit directions for use
- Not compost
 - But can be an ingredient in compost
 - May need to follow guidelines for “special claims”

The Compost example

- Compost was recently added to the AAPFCO model legislation
- A set of standard claims for compost was accepted.
- It was a long process – about ten years
- US Composting Council sponsored the effort
- Consultant Ron Alexander acted as an external broker who did technical review and organized the claims and evidence to present to AAPFCO for review
- For more information, contact Ron Alexander, <http://www.alexassoc.net/>

Compost claims. Look familiar?

BENEFITS TO COMPOST PRODUCERS AND USERS – approved by AAPFCO

- **1. Improves soil structure and porosity – creating a better plant root environment.**
- **2. Increases moisture infiltration and permeability, and reduces bulk density of heavy soils – improving moisture infiltration rates and reducing erosion and runoff.**
- **3. Improves the moisture holding capacity of light soils – reducing water loss and nutrient leaching, and improving moisture retention.**
- **4. Improves the cation exchange capacity (CEC) of soils.**
- **5. Supplies organic matter.**
- **6. Aids the proliferation of soil microorganisms.**
- **7. Supplies beneficial microorganisms to soils and growing media.**

Biochar Definition Submitted to AAPFCO

- IBI has submitted the following definition to AAPFCO
- *T-? Biochar - is a solid material obtained from thermochemical conversion of biomass in an oxygen-limited environment that may be added to soils with the intention to improve soil functions.*
- T-? designation is a general designation while they figure out what category it belongs to.
- Contact info@biochar-international for more info.

Is Biochar a Bio-Stimulant?

- ***Biostimulant*** (n.) – Substances, including micro-organisms, that are applied to plant, seed, soil or other growing media that may enhance the plant's ability to assimilate applied nutrients, or provide benefits to plant development. Biostimulants are not plant nutrients and therefore may not make any nutrient claims or guarantees.
- Example: Humic Acid
- Biostimulant Coalition has asked for a ruling from AAPFCO on its definition
- For more information contact David Beaudreau DBeaudreau@dclrs.com of the Biostimulant Coalition

Claims for humic acid – familiar?

- Increases the CEC (nutrient holding capacity) of the soil.
- Increases the water holding capacity or retention ability of the soil.
- Improves fertilizer utilization, by preventing fertilizers from leaching out from the root zone.
- Improves the growth of various groups of beneficial micro-organisms.
- Helps reduce soil erosion by increasing cohesive forces of very fine soil particles.
- Buffers pH problems, allowing plants to survive until the pH can be corrected.
- Increases and enlarges root systems and promotes plant cell division.
- Change the physical and mechanical properties of the soil in structure, color, and consistency.
- Increases the permeability of plant membranes, promotes more efficient nutrient uptake.
- Aids in correcting plant chlorosis.
- Increases the germination capacity of seed
- Helps plants grow better in high salt situations.
- Helps intensify the Enzyme systems increasing the metabolic changes inside the plant's cells.

Another new category: Biorational

- **The Council of Producers & Distributors of Agrotechnology (CPDA)** is the primary advocate of the inert ingredient and adjuvant suppliers and supports formulators, distributors and manufacturers of post-patent crop and non-crop agricultural production technology products on federal legislative and regulatory issues.
- Biorational products are typically derived from natural or biological origins and include biological pesticides as well as products used for crop stress management, enhanced plant physiology benefits, and root growth management.

ASTM Biorational Standards

An ASTM subcommittee recently approved the following definition:

*Biorational (n.) – The term used to characterize a broad range of low environmental impact substances or products (such as, but not limited to, agriculture, aquaculture, forestry, plant health, industrial and residential areas) typically biologically-derived or, if synthetic, structurally similar and functionally identical to a biologically occurring material with minor differences between the respective stereochemical isomer ratios derived from biological or synthetic origins. **Biorationals include biopesticides as well as nonpesticidal products, such as, but not limited to, those that are used for crop stress management, enhanced plant physiology benefits, root growth management, postharvest or as an alternative control agent to pesticides and antimicrobials.***

Questions for discussion

- How can the biochar industry work together to establish well-documented claims for agronomic impact of biochar products?
- Where will we find guidelines for determining the LCA of biochar products in order to make environmental claims for biochar?
- How can the industry get involved in the AAPFCO definition process?

Thank You!

- Thanks for your attention
- Let's continue the conversation!
- <http://groups.yahoo.com/neo/groups/biochar/info>



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