

Biochar Fund Welcomes Inclusion of Biochar Research into U.S. Farm Bill

(BRUSSELS - May 12, 2008) The U.S. Senate-House conference committee on the new Farm Bill, recently (May 8) announced its final farm bill conference agreement. The agreement will lead to a formal conference report, which will then be passed by the Senate and House before being sent to the White House.

The House Bill contains a Senate amendment aimed at funding biochar research, development, and demonstration (RD&D) over the next four years. US\$ 3 million will be granted to a variety of projects for each fiscal year, from 2008 through 2012. The Biochar Fund welcomes this initiative and recognizes that U.S. scientists are playing a leading role in exploring the many potential environmental benefits of the technology.

Section 9012 of the Farm Bill's Title IX on Energy contains the amendment the purpose of which is to support RD&D of "biochar as a coproduct of bioenergy production, as a soil enhancement practice, and as a carbon management strategy." Biochar is defined as biomass-derived black carbon that is added to soil to improve soil fertility, nutrient retention, and carbon content.

By producing energy from renewable biomass via pyrolysis and by adding the biochar generated during this process to (poor) agricultural soils, a truly carbon-negative energy technology can emerge. This integrated farming and bioenergy concept succeeds in actively removing carbon dioxide from the atmosphere. Several biochar trials have also shown a strong reduction in more potent greenhouse gas emissions from cropland, notably nitrous oxide and methane. That is why scientists believe it can play a crucial role in mitigating climate change.

In order to study these effects more in depth, the amendment suggests the U.S. Secretary of Agriculture to award competitive grants to eligible entities to support biochar RD&D projects on multiple scales, including laboratory research and field trials, and biochar systems on a single farm scale, local community scale, and agricultural cooperative scale.

Eligible proposals include activities that involve:

- (1) the installation and use of biochar production systems, including pyrolysis and thermocombustion systems, and the integration of biochar production with bioenergy and bioproducts production;
- (2) the study of agronomic effects of biochar usage in soils, including plant growth and yield effects for different application rates and soil types, and implications for water and fertilizer needs;
- (3) biochar characterization, including analysis of physical properties, chemical structure, product consistency and quality, and the impacts of those properties on the soil-conditioning effects of biochar in different soil types;
- (4) the study of effects of the use of biochar on the carbon content of soils, with an emphasis on the potential for biochar applications to sequester carbon;
- (5) the study of effects of biochar on greenhouse gas emissions relating to crop production, including nitrous oxide and carbon dioxide emissions from cropland;
- (6) the study of the integration of renewable energy and bioenergy production with biochar production;
- (7) the study of the economics of biochar production and use, including considerations of feedstock competition, synergies of coproduction with bioenergy, the value of soil enhancements, and the value of soil carbon sequestration.

Biochar can be added to most of the world's agricultural soils. But research is needed in order to understand how biochar works in different soil types and on different scales. The Biochar Fund specifically focuses on its application to nutrient-poor, degraded and highly weathered problem soils in the tropics, amongst farming communities living at the forest frontier. There, biochar potentially results

in the greatest environmental and social benefits: vastly improved crop yields that allow poor farmers to improve food security, reduced deforestation, biodiversity loss and emissions from cropland, the maintenance of soil fertility for long periods of time, and the establishment of stable, permanent and easily manageable carbon sinks.

Commenting on the inclusion of biochar into the U.S. Farm Bill, Laurens Rademakers, President of the Biochar Fund, said “the growing recognition of biochar as a key technology in the climate fight is good news. Biochar can transform agriculture and prepare it for the challenges of the 21st century. I would now urge America’s counterparts in the EU and elsewhere to take similar steps to promote research into the concept. The potential of biochar is global, but for it to be applied on a large enough scale, research results from different parts of the world must first be compared. On this basis, the international community can then include biochar’s ability to sequester carbon in formal mechanisms aimed at reducing global greenhouse gas emissions.”

About the Biochar Fund

The Biochar Fund was established in 2008 as a social profit organisation with the aim to generate a synergy capable of solving some of the world’s most pressing issues simultaneously: hunger, deforestation, energy poverty and climate change. The fund works with poor farmers at the tropical forest frontier, where biochar generated in small-scale pyrolysis plants can turn a destructive “slash-and-burn” cycle into a sustainable farming concept that boosts crop yields, limits pressures on forests, provides access to clean, renewable and decentralised electricity, and combats climate change by establishing stable carbon sinks.

To the Biochar Fund: <http://www.biocharfund.com>

To the U.S. Senate-House Conference Committee on the new Farm Bill: <http://agriculture.senate.gov/>