



Missouri Forest Resources Advisory Council

Promoting forest health, productivity, and sustainability

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Honorable State Legislators:

Dr Peter Becker, Research Coordinator of the Eastern Ozarks Forestry Council, discussed “The Relativity of Biogenic Carbon Neutrality” at the invitation of the graduate students of the Department of Forestry at the University of Missouri–Columbia on November 15th, 2011.

Some believe that substituting biomass for fossil fuels will help to mitigate climate change because the carbon emitted by burning biomass does not add to the amount of carbon in circulation. Careful research, however, has demonstrated that this perceived carbon neutrality has an important temporal component. Plants need time to grow and reabsorb the atmospheric carbon released from biofuels.

In many cases, more carbon is emitted per unit of energy produced by using biomass instead of fossil fuels. The time required to compensate for these excess emissions can amount to several decades, depending on the types of biomass and fossil fuel being compared, the management system producing the biomass, and the conversion efficiency of the energy producing system.

For policy makers concerned about near-term climate impacts, the implications are that incentives such as Renewable Energy Credits should differentiate among biomass harvest systems and energy plants. For example, using logging residues is preferable to harvesting whole trees and Combined Heat and Power plants are preferable to electric-only facilities.

The Missouri Forest Resources Advisory Council will be pleased to act as an information resource to state legislators on this and related matters.

Sincerely,

Wayne Lovelace, Chair