

V. Report of the Biomass Research and Development Technical Advisory Committee

As required by section 309 of the Biomass Act, the Committee is submitting this report to assess whether or not funds appropriated for the Initiative are being used in a manner that is consistent with the Biomass Act.

A. Process Used to Select Projects

For the \$5 million dollars that were made available to the Initiative for FY 2002, the points of contact for the Initiative decided that a collaborative effort would be the best course of action for selecting projects. It was decided that a USDA Working Group would develop a process to select projects for funding from an existing DOE solicitation. The Working Group selected two projects, and the Board reviewed their selection and approved funding.

B. Projects Selected

The following is a review of the grants that received funding from the Initiative:

1. **Project Title:** Value Added Products from Hemicellulose Utilization in Dry Mill Ethanol Plants.

Partners: The Iowa Corn Promotion Board, the Minnesota Corn Research and Promotion Council, the Ohio Corn Marketing Program, the Pacific Northwest National Laboratory, and the Idaho National Engineering and Environmental Laboratory.

Objectives: Aimed at integrating enzymatic hydrolysis, fermentation, and aqueous phase catalysis to produce high value components from hemicellulose in the corn dry milling process.

2. **Project Title:** Continuous Isosorbide Production from Sorbital Using Solid Acid Catalysis.

Partners: The Iowa Corn Promotion Board, the Pacific Northwest National Laboratory, and Archer Daniels Midland.

Objectives: Research is focused on developing an economically viable process that converts sorbitol, from corn wet milling operations, to isosorbide. Researchers will be exploring how isosorbide could replace petroleum-derived polyethyleneterephthalate, both in terms of economic values and environmental benefits.

C. Committee's Evaluation of the Project Selection Process

While the Committee did not participate in the process used to select these projects, the Committee understands the circumstances under which USDA chose to use this process for FY 2002 funding. The Committee strongly recommends that the process used to select these two

projects not be used for future funding. To better fulfill their duties to advise the Secretaries of Agriculture and Energy, the Committee will investigate opportunities to increase their involvement regarding procedures for reviewing and evaluating proposals under the Initiative. Further, due to constraints regarding the release of information on the FY 2002 project selection process, the Committee did not believe it was provided with adequate information to affirm the process by which the projects were selected.

D. Committee's Evaluation of the Projects Selected

In reviewing the grants that received funding from the Initiative in FY 2002, the Committee believes that the technical focus of the projects is consistent with the goals of the Initiative.

The project titled, “**Value Added Products from Hemicellulose Utilization in Dry Mill Ethanol Plants,**” satisfies the qualifications under the Biomass Act by focusing on technology that will diversify the range of products that can be efficiently and cost-competitively produced from biomass. This project also satisfies the recommendations of the Committee by helping to further the biorefinery concept and by increasing the value of agricultural products.

The project titled, “**Continuous Isosorbide Production from Sorbital Using Solid Acid Catalysis,**” satisfies the qualifications under the Biomass Act by focusing on the research priorities of developing biobased industrial products that can compete in performance and cost with fossil-based products; accurate measurement and analysis of greenhouse gas emissions in relation to the life cycle of biobased industrial products with respect to other alternatives; analyzing the economic viability of a biobased industrial product; and evaluating the cost of the required process technology and interactions between an emergent biomass refining industry and the petrochemical-refining infrastructure. This project also satisfies the recommendations of the Committee by helping to further the biorefinery concept and by increasing the value of agricultural products.