

UTIA Press Release

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Biomass Research Receives Federal Funding

Two University of Tennessee Institute of Agriculture programs have received more than \$1.7 million in federal grants to study biomass production and processing issues.

The federal government and many private corporations are interested in using biomass - the remains of plants and animals - as a source of heat or to make fuels or generate electricity. The idea is to reduce the nation's dependency on foreign oil and to increase our use of renewable resources for our energy needs.

Raw biomass materials range from corn stover, switchgrass, woody plant residue, and tough straw from rice and flax.

Agricultural economists Burton English and Daniel De La Torre Ugarte are working on a \$1 million project to research the feasibility of growing switchgrass as an energy-producing crop. Recently funded by the Department of Energy, the researchers are heading a team effort to examine producer interest in the crop, its economic potential in the region and nationally and production systems necessary to provide a high-quality harvest.

The first research plots are expected to be harvested this fall. TVA will serve as a partner to convert the switchgrass to a fuel for use as a combustion agent in coal-fired power plants.

While plenty of research supports the potential to convert biomass into energy, a principle difficulty is developing the specific technology to separate the physical and chemical components of the raw biomass material into consistent and economical products. The USDA recently awarded Alvin Womac, a professor in biosystems engineering and environmental science, and a team of his colleagues more than \$700,000 to research the characteristics of different biomass sources and to develop working small-scale models of appropriate grinding and processing units.

The award was one of 21 biomass projects funded in a joint DOE and USDA solicitation.

Womac's team will collaborate with researchers from the Oak Ridge National Laboratory and First American Scientific Company. If all goes well, First American Scientific Company will build industrial-scale versions of the models.

Womac believes that biomass applications will fuel more than just the energy sector of the economy. Others think so, too. Enhancing the nation's rural economies through the production and processing of commodities for non-food uses is the goal of a new federal program authorized in the FY 2004 budget.

Sponsored by Senators Bill Frist (R-TN) and Tom Daschle (D-SD), the Sun Grant Initiative created five regional centers for university based-research, Extension and educational programs for biobased energy and value-added products. The UT Agricultural Experiment Station is one of five proposed centers.

If funded in the FY 2005 budget, the centers would receive \$25 million (approximately \$5 million each) to fund regional biomass programs on a competitive basis. UT would coordinate research throughout the Southeast. Other Sun Grant centers include South Dakota State University, Oklahoma State University, Oregon State University and Cornell University.

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