DAVID BRANSBY – CHANGING THE FACE OF AGRICULTURE AND ENERGY

David Bransby, professor in the Agronomy and Soils Department in the College of Agriculture, was chosen to receive the 2006 Auburn University Award for Excellence in Faculty Outreach. This award was given to Bransby for his meritorious and productive scholarship, especially his innovative work in bioenergy, and was recommended by a faculty committee which reviewed 12 other nominations representing some of Auburn's finest faculty scholars.

"My work assignment at Auburn University involves teaching and research, but no formal extension or outreach responsibilities," Bransby said. "The ultimate goal of applied research should be to benefit society, and this goal cannot be achieved without getting involved in outreach."

Bransby arrived at AU from his native South Africa in 1987 to teach and conduct research in forage and livestock management. Shortly after his arrival, two senior professors in charge of a federal multi-state grant to identify high-yielding, low-input herbaceous plants that could be converted to energy left AU. He was asked by the dean to assume responsibility for the grant program. Bransby agreed, although he did not have any background in the field of bioenergy.

"I insisted that I wasn't qualified to take over the research because I didn't know anything about the subject," Bransby said. "But the response was that nobody else knew anything about it, either; renewable energy was a totally new area.

"I thought it was a crazy idea."

However, Bransby immediately set out to learn what he could about the production of energy from biomass—at the same time that he was educating himself, as an immigrant, about agriculture in the United States.

"What I saw was that the two could fit together," Bransby said. "American farmers overproduce the major commodities most of the time, and the government has responded through the decades with farm programs, which have created stagnation in U.S. agriculture by discouraging new ideas and change."

Fast forward 19 years and, in that time, Bransby has built two research and outreach programs, one in forage and livestock management and one in energy crops and bioenergy, that have received both national and international recognition.

"Over the years Dr. Bransby has maintained an impressive outreach program for the animal grazing industry," said J.T. Touchton, professor and head of the Agronomy and Soils Department. "His outreach program in bioenergy has included nationwide efforts to promote and educate people on the potential of bioenergy. These efforts have basically established Dr. Bransby as one of the leading authorities in the production of bioenergy."

Bransby said outreach activities have taught him an enormous amount about the real world environment in which results of his research are applied.

"During the course of these activities I have gathered valuable information that has helped me design more relevant research and improve the content of the classes I teach."

In the forage and livestock program, Bransby serves a well-established industry, providing information about both the underlying physical processes and the economic consequences of following specific plans. The target audience is livestock producers (mainly beef cattle, but also sheep, horses, and goats).

Bioenergy, by contrast, is an emerging industry in the state and nation. Bransby has done ground-breaking work in this area, building a new program where none existed before and brought an awareness of the potential benefits of bioenergy to the public at large and to policy makers. The target audience is society, but especially elected officials, because the greatest need in developing bioenergy as an industry is enabling legislation.

The impact of Bransby's work at Auburn is substantial. In the forage and livestock sector it has impacted industry, by providing an increased sale of forage seed, as well as the profitability of hundreds, if not thousands, of livestock enterprises across the Southeast. This has been achieved by speaking at meetings and field days, publications in the regional agricultural press, assistance with private company advertisements, and one-on-one interaction with companies, farmers and ranchers.

He has worked closely with several state agencies including the Alabama Department of Agriculture and Industry and the Alabama Department of Economic and Community Affairs on a numbers of projects. He has met with government officials and elected representatives, including both of the U.S. Senators from Alabama and U.S. Representative Mike Rogers. He has also met with Richard Lindsey, Chair of the State Appropriations Committee, and Ron Sparks, the Alabama Commissioner of Agriculture.

When President George W. Bush zeroed in on switchgrass in his 2006 State of the Union address as one possible new source of ethanol to reduce America's dependence on foreign oil, the vast majority of the audience did a double take.

Not Bransby or anybody who has talked with him about his research in recent years. He is convinced that biofuels made from switchgrass and other agricultural crops and byproducts can both reduce the nation's dependence on foreign oil and strengthen America's farm economy.

"Energy crops, while not a total solution, would help by giving farmers new markets and reducing their dependence on farm subsidies," Bransby said.

And he's hoping that the president's specific reference to the crop will propel switchgrass from the field to the fuel tank, and that Congress will appropriate federal dollars to build a commercial refinery that would demonstrate the feasibility and cost-effectiveness of biofuels.

"The government has been waiting for private industry to commercialize the technology, but private industry isn't willing to take that initial risk," said Bransby. "All it will take is just one federally funded commercial refinery, and industry will take it from there."

When the U.S. Department of Energy cut funding for Bransby's switchgrass research program in 2002, Bransby sought and secured funds from the Alabama Agricultural Experiment

Station to carry on his investigations into growing the crop and pushing for its commercialization.

"I've continued because I believe this is really important stuff," Bransby said. "It's going to play a major role in our country's future."

He also believes that outreach is essential to the advancement of an effective research program.

"Research should not be an end in itself, but the first step in a process for generating and transferring information or technologies that are of value to the communities we serve," Bransby said. "Outreach is the vital second step in this process. To be effective, the research-outreach process should be as seamless as possible. This is best accomplished by individual faculty being involved in both research and outreach, rather than different faculty having responsibility for each of these functions. Subsequent observation of the benefits derived from your research is extremely rewarding."