

Focus On The Future: Biofuels

MILAN, TENN.

More than 25 years ago visitors to the Milan No-Till Field Day had the opportunity to hear for themselves from economists, plant and soil scientists, agricultural engineers and others about the importance of no-till production for soil fertility and preservation. Those production strategies changed agriculture for much of the nation. On July 24, that same opportunity may exist, only this time the focus is biofuels.

Biofuels and energy independence are the talk of the nation. The University of Tennessee AgResearch program is among the leaders striving to provide the critical links for a profitable, sustainable biofuels industry. During Tour A at the Milan No-Till Field Day visitors can hear an update on the University's efforts on behalf of farmers and industry. Launched in 2007, the UT Biofuels Initiative (UTBI) has received national attention as the nation's first farm-based research and business model for the production of cellulosic ethanol.

The focus of the Initiative, which has received a \$70 million commitment over 5 years from the state of Tennessee, has been on production and conversion of cellulosic ethanol. Unlike traditional corn ethanol, cellulosic ethanol is made from biomass sources such as switchgrass, wood chips and other non-food plant material. Because it does not compete with food or feed uses, planting dedicated energy crops like switchgrass on marginal cropland is widely seen as a way to produce affordable, sustainable and renewable biofuels without raising food or feed costs.

Speakers on the tour include Dr. Kelly Tiller, one of the economists who authored the business model and current co-director of the UT Office of Bioenergy Programs. Tiller will outline plans for construction of a new research-scale biofuels refinery in Monroe, County, Tennessee. She will also outline the vision for statewide commercialization and implementation of the model.

Currently 16 farmers are on contract to produce some 700 acres of switchgrass as feed-

stock for the refinery, but full commercialization across the state calls for more than 20,000 producers to provide switchgrass to multiple biorefineries. Tennessee has the potential to produce 1 billion gallons of cellulosic ethanol. This level of production would displace approximately 30 percent of Tennessee's present gasoline consumption.

In addition to a new crop for farmers, other potential benefits from commercial implementation of the business model include new jobs for communities throughout the state and increased state and local revenues.

The UT AgResearch and UT Extension programs are dedicated to the success of the farmers interested in energy crop production, so speakers at other tour stops and on other tours at the Milan No-Till Field Day will explore topics critical to technical support. Dr. Neil Rhodes and Joe Beeler of the UT Plant Sciences Department, will examine weed control strategies for switchgrass. UT Extension forage specialist Dr. Gary Bates and Dr. Pat Keyser, UT Center for Native Grasslands Management, will discuss the dual nature of switchgrass as a forage and a feedstock for production for biofuels. UT Extension specialists will speak on the role of Extension in helping farmers succeed with new bioenergy crops.

In addition, experts from the Oak Ridge National Laboratory will talk about the environmental importance of switchgrass as an energy crop. Many dedicated energy crops, such as switchgrass, have positive effects on the environment, including carbon sequestration and soil stabilization.

Other tours at the Milan No-Till Field Day will address traditional agronomic crops like corn, soybeans and cotton. A complete copy of the program and directions to the facility are available online at <http://www.milan.tennessee.edu>

If tradition holds true, thousands of visitors are expected at the field day. Gates open at 6:00 a.m. and visitors are encouraged to come early to take advantage of a full schedule of activities. Δ