

FEEDSTOCK SUPPLY CHAIN CENTER OF ENERGY EXCELLENCE

MSU is working with Michigan Tech, the Michigan Economic Development Corporation, the Mascoma Corporation, Frontier Renewable Energy and the JM Longyear Company as part of this state-designated center aimed at developing one of the first commercial cellulosic ethanol plants in the country in Kinross, Mich. The center received \$2 million in state funds to conduct four projects, jointly led by scientists from MSU and Michigan Tech:

Feedstock Supply Chain Model

Researchers will develop a supply chain model aimed at delivering forest biomass to the Frontier facility efficiently and cost effectively. The model will help identify:

- best feedstock sources and production systems
- best harvesting procedures
- ideal transportation methods
- storage size requirements
- areas where the supply chain can be improved

Increasing Sustainable Biomass Feedstock Availability

This project involves four main components:

- developing a feedstock inventory within 150 miles of Kinross
- developing a feedstock availability model
- establishing energy crop trials at various locations near Kinross
- assessing surplus forest biomass production in Michigan as well as analyzing sustainable harvest levels of forest biomass throughout the state

Improving Forest Feedstock Harvesting, Processing and Hauling Efficiencies

Researchers will:

- assess current biomass transportation systems near Kinross
- determine optimal ways to transport biomass to the Kinross area
- analyze current timber harvesting and processing systems
- determine optimal ways to harvest and process timber
- conduct life cycle analysis and greenhouse gas assessments of various harvesting, processing and hauling systems
- conduct a cost analysis for delivering biomass to the Kinross facility

Outreach, Extension and Technology Transfer for the Feedstock Supply Chain Center of Energy Excellence

This project will build and integrated outreach program for the center, starting with a snapshot of the education, Extension and outreach activities currently being conducted by MSU, Michigan Tech and other organizations. The snapshot will be used to identify partnership opportunities and outreach gaps that need to be addressed.

The project will develop a web site featuring center project results, as well as links to other resources.



**MICHIGAN STATE
UNIVERSITY**

EXPANDING THE BIOECONOMY
WITH WOODY BIOMASS

FACT SHEET

FOR MORE INFORMATION: WWW.MAES.MSU.EDU/UPTIC OR WWW.BIOECONOMY.MSU.EDU

June 2009