

Minnesota NewsWatch

Wyoming home to first wood chip ethanol plant

By ROBERT WAGGENER

ARAPID City, S.D., company is producing cellulosic ethanol from wood products at the first facility of its kind in the country.

The small-scale plant near Upton, Wyo., is using proprietary technologies and newly developed enzymes to convert cellulose from waste wood into sugar and, ultimately, ethanol. If the plant succeeds, Upton-area ranchers are hopeful it will help them better manage their forested lands.

"If they can get it up and going, I think it could help quite a few ranchers around here," says Mike Davis, who operates a cattle ranch with his wife, Alison, and his parents, Kathie and Lloyd.

"The plant could give us another cash crop. Right now, the smaller-diameter trees we are cutting down to thin heavily forested areas have to be left on the ground because there is no market for them," Davis says. "Thinning improves the grass resources for our cattle and wildlife, and it reduces the risks associated with wildfire, drought and beetle outbreaks."

Western Biomass Energy, operated by KL Process Design Group, is the result of six years of development ef-

Key Points

- A South Dakota company is producing ethanol from wood chips.
- Its plant near Upton, Wyo., is the first of its kind in the U.S.
- Ranchers are hopeful it will help them better manage their lands.

forts between KL and the South Dakota School of Mines and Technology.

Operating at a low production level since August, it is designed to produce 1.5 million gallons of ethanol per year.

Technology solid

"In our experience with enzymes and ethanol production, we have incorporated proven technologies that have been utilized for years in other industries," says Dave Litzen, KL's vice president of process engineering. "Through these processes, we are releasing fermentable sugars hidden within the wood, without the use of environmentally unfriendly acids." Using acids to convert biomass to ethanol dates to the 1800s, but the technology fell out of use after World War II because of poor yields, high waste and large volumes of unmarketable byproducts.

"Renewable energy from cellulosic feedstock has long been the dream of entrepreneurs and government officials alike," says Tom Slunicka, KL's vice president of business development. "Our objective is simple: to help solve our energy needs by supplying cost-effective renewable fuels from excess cellulosic materials that exist across the country and world."

WBE is using ponderosa wood chips being trucked from nearby South Dakota. But if a commercial plant is established, says the company's media relations manager, Tom Martin, it could process slash piles and other types of waste wood from private and public lands around the Upton area, which is at the edge of the heavily forested Black Hills.

"We can currently run beetle infestation trees and trees with burned bark through the Upton plant," Martin says.

The plant is located at the Upton Regional Industrial Park, which is managed by the Weston County Development Board. The board's chairman, Tom Barritt, says, "To me, this was a win-win for them, our community and area landowners, and that's why I tried to entice them here."

Waggener writes from Laramie, Wyo.

They said it

"As the project develops, it may give ranchers yet another opportunity to add value to what they are already doing — in this case converting something with little value into something that has value. A project like this may help them better manage their forested lands and better utilize their natural resources."

Cindy Garretson-Weibel,
agribusiness division director,
Wyoming Business Council



"Many landowners around here have timber on their property, and a lot of those forested areas need to be thinned or logged. Slash and smaller-sized trees could be used by the biomass plant. There are issues with beetle infestations, and developing a good thinning program would not only reduce the chance of beetle infestations, it would also reduce stress due to drought and improve stands for later sale quantities of timber. As you open up forested areas, grass receives more sunlight and nutrients, and this would allow ranchers to increase the carrying capacity for livestock."

Bill Taylor, University of Wyoming
Extension educator,
Weston County

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