Energy beets in Kentucky earmarked for ethanol production

JUL 10, 2012

Could energy beets replace corn as the primary source of ethanol in the country? A biofuel company in Kentucky is growing energy beets—a beet hybrid similar to sugar beets—with plans to build an energy beet ethanol plant, reports the Corbin, Kentucky Times-Tribune:

Patriot Bioenergy Corporation, which has an office in Williamsburg, has more than 20 acres of energy beets growing throughout Whitley County.

According to Patriot’s CEO Roger Ford, the company would use natural gas to spark the process, which is like a distillery getting alcohol from sugar. But while ethanol is mainly based from corn in this country, Ford sees energy beets as a good substitute.

“They’re phasing out the ethanol corn subsidy in America, and after 30 years, it’s gone as far as it can go. Why energy beets? First, it’s been selectively bred as a crop. We hope to produce two crops a year. It’s such a high sugar yield crop, and we can get on average 800-1,500 gallons an acre. We’ll need less land to produce it in the spring and fall months. And second, there’s a longer timeline in harvesting it. Once it comes in, it will continue to grow. Processing the beets would use natural gas more efficiently than with corn. We’ll get sugar directly from the beets, and we won’t need an extra step to convert the starch from corn into sugar. So that process is removed, and you shorten the distillation time,” Ford said Friday in a phone interview from Pikeville.

When Ethanol Producers Magazine published an article about energy beets in April, no energy beet ethanol plants were in production yet. In fact, that was the focus of the article:

In the meantime, others are waiting and watching, holding off until someone else is successful. “It’s kind of that idea of who moves first, who takes the first leap,” says Carl Christian Radinger, owner of Putsch Group, in a telephone call from Germany. “You know, everybody is waiting for somebody to do it to see how the economics really are, not just on paper. There needs to be a reference plant.”

According to the article, sugar beets could also be used to produce ethanol, although the focus in the U.S. right now is the energy beet hybrid, which is bred to produce a more diverse range of sugars:

In Europe, some food-grade sugar producers have added ethanol production to their sugar beet processing plants, much like the Brazil sugarcane model, Radinger says. He and his colleagues at Putsch, manufacturer of beet processing equipment, couldn’t think of a single, dedicated, energy beet ethanol plant in Europe.
Instead, the most common overseas use for energy beets is off-farm biogas production, an attractive option due to high energy prices. Interest for U.S. ethanol production, on the other hand, is more focused on energy beets. Gustafson just doesn’t see U.S. sugar producers adding on ethanol production. For one thing, North Dakota’s proposed energy beet-to-ethanol plants will utilize a more efficient processing technology than existing sugar production facilities, he says. Still, it is technically achievable, and becomes more feasible if there are changes to the U.S. sugar program. In that case, granular sugar producers could conceivably convert or augment food-grade sugar plants. “It certainly is a possibility,” he says, “especially if we see changes in national farm legislation.”

Supporters of energy beets say that the beets, unlike corn, are a crop dedicated to energy and thus wouldn’t cause a rise in the cost of food. If sugar beets were used to make ethanol, however, the price of food would be affected.

Perhaps this year’s drought-created high corn prices will push others in the ethanol industry to try out energy beets.