

FERMENTATION vats at the old Miller brewery in Fulton, north of Syracuse, could be used to make ethanol as Michael Hadley, left, of Northeast Biofuels and Michael Treadwell of Operation Oswego County survey the closed plant.



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Ethanol brews new hope for site

Former Miller beer factory in Oswego County could emerge as a major manufacturer of clean-air additive to motor fuel

By ERIN DUGGAN
Capitol bureau

ALBANY — When Miller Brewing Co. closed its Fulton plant in 1994, it didn't just put 1,000 New Yorkers out of work. It also idled a well-equipped 2 million-square-foot facility, with 70 truck docks, rail access, grain processors and brewing tanks.

The company wouldn't sell the plant to another brewer, making it difficult to get the factory — which is part of an Empire Zone in Oswego County — back in operation.

After years of searching, the sellers found a perfect fit: Northeast Biofuels, a firm that could reuse the beer-making equipment to produce ethanol, a gasoline

additive that puts more oxygen into fuel to help it burn more efficiently.

For New York, the ethanol plant appears to be a good fit, not just economically but environmentally and even educationally.

If the plant, which will employ 70 to 100 people, gets all of the \$170 million in mostly private funding it needs to open, it would be the first in the Northeast looking to make ethanol. It could create a local demand for corn, ethanol's primary Please see **ETHANOL A9** ▶

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ingredient, and open a market for an alternative — willow trees. In turn, one of its chief byproducts is commonly used by dairy farms.

Also, it would keep more of the money spent on ethanol for New York gas home in the Empire State. Ethanol's price tends to rise and fall with oil, and was in the \$1.45 to \$1.55 a gallon range early this month — lower in the Midwest where it's mostly produced.

Federal law requires oxygen to be added to fuel in all states to make it burn more cleanly. Ethanol's competitor, methyl tertiary butyl ether (MTBE), has been banned in 17 states after studies found it contaminated drinking water and possibly caused cancer. New York's ban took effect in 2004.

That gives ethanol a corner on the oxygenate market here. With 10.5 million cars and trucks on the road, New York now is one of the nation's biggest ethanol markets.

For farmers, the increased need for ethanol is clearly welcome. Since most ethanol is made from corn, it creates a new market for their product. Although Northeast Biofuels says the bulk of the corn for the plant will come from out of state, provided by Purdue, some New York corn will be in the mix.

New York produces about 54 million bushels of grain corn each year, compared with Iowa's 10.2 billion bushels. To produce the plant's goal of 100 million gallons of ethanol a year, it will need about 41 million bushels of corn a year. Corn sells for about \$2.20 a bushel, so the plant could require more than \$90 million worth of corn a year.

"They'll definitely buy some New York state corn, and that will be good for grain farmers," said Thomas Lindberg, assistant commissioner of the Department of Agriculture and Markets. "Anytime you can provide new markets, new opportunities, that's good for farmers."

The plant also could open up the market for a new crop: willow trees.

Northeast Biofuels has been working with SUNY's College of Environmental Science and Forestry at Syracuse, which is doing some of the most innovative renewable energy research in the country. Today, the school has the largest willow crop in North America, and its Center for Sus-



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tainable and Renewable Energy is finding that the starchy cellulose from willow and other trees can jump-start the ethanol fermentation process.

It's a less proven and, in terms of the Midwest farm lobby, less politically popular, source for ethanol, but SUNY scientists believe willow could be an important step in the future of energy. The plant is not the tall weeping willow, but the smaller, straighter shrub willow.

"We're in for the long haul," said the college's Governmental Relations Director Michael Brower, who isn't worried about finding local farmers to grow willow. "If you make a market for a crop, you'll find a farmer to grow it."

The school owns a 1,000-acre willow farm about 20 miles south of campus and is planting trees all over the state. New York's climate is perfect for the trees. The school plans to add 10,000 trees over the next three years.

Incorporating willow trees into the process would open a new market, and some land that's been unusable for other crops, Lindberg said.

"We've always said in terms of growing corn we can't grow it like they do in Iowa, but we can certainly grow willow," Lindberg said, noting it thrives on some of the marginal land in the state.

Both the ethanol plant and the willow project have found support in Albany. Gov. George Pataki has mentioned the college's work and the drive to find more sources of sustainable energy in several State of the State addresses.

College President Neil Murphy said Pataki's focus on renewable energy has been good news for his school and the environment. Northeast Biofuels, Murphy said, is "literally a biofuel refinery right in our own back yard."

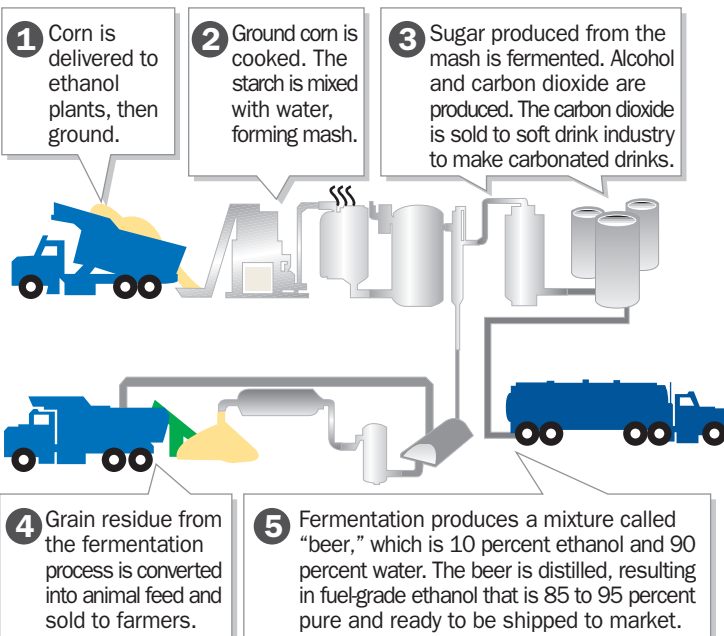


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WILLOW TREES are harvested at a Tully, Onondaga County, farm by Nathan Bliss, left, and Mark Appleby for ethanol production tests.

How is ethanol produced?

Making ethanol, the grain-based fuel used in cars, is a lot like making beer. Corn is the main component, although willow trees, other grains and even paper waste can be used. Here's how it is done:



Source: Renewable Fuels Association

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Crediting Pataki's attention to alternative energy, Murphy said, "We don't see that leadership on the federal level — at least I don't see it — when it comes to renewable energy."

Ethanol hasn't been without some controversy. In 2003, then Department of Environmental Conservation Commissioner Erin Crotty asked the EPA for a waiver from the oxygenate requirement,

saying cleaner burning cars have "rendered the need for an oxygenate requirement obsolete." She said gasoline manufacturers will have an incentive to mix ethanol into their fuel because of a tax break, not environmental reasons.

Some studies show ethanol makes gas evaporate more quickly, which could hurt the state's air quality — another standard mon-

itored by the EPA. The plant itself is not expected to be a major source of pollution, according to DEC. In fact, it is expected to run cleaner than when it was a brewing company.

Peter Iwanowicz, of the American Lung Association of New York State, said ethanol-enriched gas will raise pollution levels in the summer months and increase cancer agents in the air.

New York and California were both denied waivers and are now in an ethanol bind.

If the state is required to use it, state officials said, New York might as well make it at home. And, ethanol can stretch fuel supplies.

"While the Clean Air Act is unlikely to be amended to remove the oxygenate requirement, the fact is we need to balance relatively minor air quality concerns with the need for greater energy security," said Charles Fox, Pataki's deputy secretary for energy and the environment. Fox said New York's aggressive air quality programs will more than make up for the slight increase in pollution that might come from increased ethanol use.

Although beer and ethanol might seem like very different products, their production is almost identical. During the process, ethanol is even referred to as beer, and once finished is the same as grain alcohol. Only by

adding gasoline to the product can it leave the plant without being charged an excise tax imposed on drinkable alcohol.

Northeast Biofuels is getting closer to starting up its brewing machinery, putting in place the financing it needs. Officials at several state agencies involved with the project said they would be surprised if it doesn't move forward.

"With all the things they have in play, with their private capital and on the state side, I think the plan is very viable," said Tom Collins, spokesman for the New York State Energy Research and Development Authority.

Ethanol production is still a new energy market for investors because most Midwest plants are financed by farmers cooperatives. The cooperative owners use their own corn and benefit from the sales of ethanol and the byproducts.

With investors starting to look more at ethanol, at least two smaller plants are looking to open in western New York, and many more are being proposed throughout the country.

"The whole idea is new to the Northeast," Hadley said. "It's something (Wall Street) is starting to embrace."

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