

Ethanol

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Process technology provider aids Brazilian, cellulosic production

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California-based process technology provider EdeniQ Inc. has announced additional partnerships with ethanol producers to implement the company's yield enhancement technology. EdeniQ has been conducting commercial trials of its Corn3 yield enhancement program for months and has several producers participating in the first phase of the program. (See "[A Triple Play for Higher Yields](#).") The company recently expanded its list of production facilities utilizing the technology to include E Energy Adams LLC in Nebraska and Comanche Clean Energy, a Brazilian sugarcane-to-ethanol producer.

EdeniQ's program is a three-step yield enhancement technology that is expected to ultimately boost ethanol yields by 10 percent. EdeniQ CEO Larry Gross said each phase of the technology is capable of increasing production yields by one-third of the total 10 percent. Phase One utilizes a patented low-glycerol yeast to boost yields; Phase Two requires installation of a proprietary milling device to reduce the size of the cornmeal, thus increasing the amount of corn starch; Phase Three, which is still under development, will include the use of enzymes and can be utilized for cellulosic ethanol production, according to the company. Gross said EdeniQ is in the process of scaling up this phase of its technology and will be ready to deploy it in 2010.

ICM Inc. has been contracted to install EdeniQ's milling device, the Cellunator, at the E Energy Adams facility. Gross said installation is expected to take up to eight weeks. E Energy Adams CEO Carl Sitzmann said the company chose to install EdeniQ's technology because enhancing productivity is essential to achieving and maintaining healthy margins. "The technology doesn't cost much to install, it's not disruptive to operations and it delivers immediate results to our bottom line," he said.

The technology agreement formed between EdeniQ and Comanche marks EdeniQ's entry into the Brazilian market and may also signify a shift in Brazil's technology mindset. Comanche chairman Thomas Cauchois said his company has taken a different approach to production than some of the other producers and is more open to technology and risks. However, he believes that is about to change. "We are beginning to see a period of change in the industry," he said. "The sector has become more competitive and needs to invest in environmental and worker safety and that means you have to strive for greater industrial and agricultural efficiency in Brazil. The sector is not set up to do that. Many plants are very old and many companies are not willing to take risk. [However,] there is a wave of industrial efficiency coming through Brazil right now."

Comanche was founded in 2007 and currently operates two sugarcane-to-ethanol production facilities with a combined production capacity of 170 million liters (45 million gallons). Cauchois said EdeniQ began running tests at Comanche plants in April and received good results. The technology used for sugarcane-based ethanol is a bit different than corn-based ethanol, but the end result is still expected to be an approximate 10 percent increase in yield, according to EdeniQ. Cauchois said the Comanche facilities are currently operating with the first phase of the technology and yield improvements have been positive and are increasing as formulations have been tweaked.

EdeniQ's ultimate goal is to assist first-generation producers to improve their processes as a way to open the door to wide-scale cellulosic ethanol production, according to Gross. "EdeniQ has always viewed the movement from legacy ethanol production to cellulosic production as an evolutionary process," he said. "Given the current financial environment, migrating the billions of dollars of capital deployed in today's corn and sugarcane ethanol industries toward more advanced production makes a lot of sense. Our first suite of yield enhancement technologies helps producers all over the world shore up their financial and environmental results, which, in turn lets them make additional investments in next generation technologies."

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