

▶▶ “Attenuzyme Flex allows breweries to realize a broad range of wort attenuation, from highly attenuated beers such as low-calorie and light beers to those requiring only fine attenuation adjustments,” says Søren Lund, Regional Marketing Manager for Brewing at Novozymes. “The sugar profile is more favorable with a lower glucose-to-maltose ratio compared to wort produced with regular glucoamylase-based enzymes, especially for fine attenuation adjustments. A better sugar profile means better yeast performance, which results in a more desirable flavor profile.”

Attenuzyme Flex is inactivated during wort boiling and is considered a processing aid. Furthermore, the reduction of enzyme load per brew also reduces problems with wort filtration and hot break removal, which is often seen with a highly saccharified mash.

**Beer for the ladies**

Low-calorie and low-carb brews generally appeal to women, and it will be interesting to see if these healthier beers will inspire more women to choose a beer over a mixed drink or glass of wine. Market experts find it likely that new and more targeted marketing approaches will focus on women in the years to come – a major change in a market that has traditionally been solely directed towards men.

Once again a Novozymes product contributes to the greater good. Healthier beers with fewer calories and reduced energy usage are the result when breweries change to Attenuzyme Flex. And it is good to see that consumers are ready for the change, too. ■

**FOR MORE INFORMATION**  
Søren Lund  
shl@novozymes.com

“Light beers are here to stay, and Attenuzyme® Flex can help brewers meet this consumer need,” says Søren Lund, Regional Marketing Manager for Brewing at Novozymes.



# MEETING

Novozymes has selected Blair, Nebraska, as the location for its new USD 80–100 million production facility. The plant will produce enzymes for existing corn-based fuel ethanol and later, enzymes for cellulosic ethanol production.



A sketch of the new enzyme plant which is planned to be completed in 2010.

The new facility will be located on a 30-acre property at the Biorefinery Campus in Blair, approximately 25 miles north of Omaha, Nebraska. Novozymes expects to break ground in 2008 and start operations in late 2010.

**The search begins**

“The search for the perfect location started 18 months ago,” says Per Olesen, Vice President and project chairman at Novozymes. “Our objective was to find the most economical and efficient area from which to supply our American fuel ethanol customers. To begin with we didn’t limit



# CUSTOMERS CLOSE TO HOME

our options; we started looking across the whole world for possible sites."

The project team quickly narrowed the possibilities - first to the Americas, then the US, then the Midwest, and finally to Blair, Nebraska.

"We found that proximity to our customers means a great deal," says Per Olesen. "There are many excellent sites around the world to place a new enzyme manufacturing facility. But when we looked at the entire package, the Midwest was the best match. There were many variables to consider, including raw material sourcing, utilities supply, transportation costs, construction costs, infrastructure, and the availability of a skilled workforce. In Blair we identified a site where all of our needs could be met in the most optimal way."

## Enthusiasm all around

"The US is an attractive and competitive market for us to invest in," explains Peder Holk Nielsen, Executive Vice President at Novozymes. "The new location will allow us to sustain our close cooperation with bioethanol customers across the Midwest and provides us access to a well-educated workforce and a good infrastructure."

The state of Nebraska also warmly welcomes the new facility. Nebraska State Governor Dave Heineman says, "Nebraska is pleased that Novozymes has selected Blair for its world-class biotech facility."

Initially the facility is planned to bring approximately 100 new jobs to the state. Further development could increase the number significantly.

David G. Brown, president and CEO of the Greater Omaha Chamber of Commerce, says, "This is one of the most exciting investments and job announcements we've had in recent years."



"When locating a new production facility, proximity to your customers means a great deal," says Per Olesen, Vice President and project chairman at Novozymes.

**FOR MORE INFORMATION**  
Per Olesen  
[po@novozymes.com](mailto:po@novozymes.com)

## One piece of a larger plan

The new facility in Nebraska is just one of the important initiatives that Novozymes is taking to grow with the American biofuel industry.

Earlier in 2008, one of the first steps was taken to meet Midwest customers' needs by opening an office and laboratory facility in Ames, Iowa, another city in the heart of the Corn Belt. The main focus of the Ames office is to develop strong relationships with Midwest customers and provide quick-response technical support.

Expansion of both R&D facilities and production is also taking place at Novozymes' enzyme facility in Franklinton, North Carolina.

## Growing with the industry

With the American biofuel industry growing so quickly, Novozymes wants to have the necessary capacity to grow together with it. The expansion initiatives being implemented right now are key to preparing Novozymes for the inevitable requirements of tomorrow's biofuel industry - not just in the US, but worldwide. ■

