

# Cheesemakers set to benefit from strategic alliance

When Novozymes joined forces with Chr. Hansen in 2002, both companies strongly believed that the strategic alliance would bring great benefits to their customers.

In 2005, with the launch of YieldMAX™ PL, that dream has become a reality.

CHR HANSEN

novozymes®

Back in 2002, *BioTimes* reported on the announcement of a strategic alliance between Novozymes and Chr. Hansen to work on a range of new products for the dairy industry. Great things were predicted for the alliance. It was said that Novozymes and Chr. Hansen would complement one another perfectly. Novozymes was a world leader in the discovery, development and production of industrial enzymes across a huge range of applications, including the dairy industry. And Chr. Hansen had a peerless heritage in the development of dairy applications (dating back to the development of rennet more than 130 years ago), with excellent customer relations into the bargain. Together, with a combined focus,

the alliance would encourage the development of products with the potential to redefine the dairy enzyme market.

Fortunately, the predictions have proven to be correct. The alliance, which appeared to be a perfect match, has also proven to be a meeting of minds, and the first product to be developed jointly by Novozymes and Chr. Hansen has now reached the market late in 2005.

#### Giving customers a boost

The first fruit of the alliance is a phospholipase called YieldMAX PL. The enzyme is added to milk as a pretreatment process to optimise coagulation and give a higher yield of cheese, thus saving on raw

materials and increasing the capacity of the cheese manufacturing facilities. The increase in yield is in the order of 2%, and while this may not seem like very much to the non-cheesemaker, professionals working in the industry have hailed it as one of the biggest innovations for several decades. Indeed, by comparison it is estimated that all the other efforts of the entire dairy industry combined over the past decade increased cheese yield by just 1%.

The main focus for the use of YieldMAX PL at the current time is in the manufacture of 'pasta filata'. Pasta filata refers to the stretched-curd cheeses made famous in Italy such as mozzarella and provolone. Such cheeses are made using a special technique in which the curd is given a hot whey bath, then kneaded and stretched to the pliable consistency required for pizza toppings. The cheese most commonly used for pizza is mozzarella.

"The research efforts for YieldMAX PL over the past 2-3 years have focused on mozzarella and its use in products such as pizza. Mozzarella has to undergo some fairly unique processing steps, and YieldMAX PL is specifically aimed at boosting yield in this processing," says Ole Madsen, Marketing Manager at Chr. Hansen.

"After thorough testing, we received our first order for YieldMAX PL from a US cheese manufacturer in September. Not only does this demonstrate that the product has the potential to lower manufacturing costs and increase profitability, but it also shows that the alliance between Chr. Hansen and

Nina Eriksen and Ole Madsen agree that YieldMAX™ PL is just the first revolutionary enzyme solution from Chr. Hansen and Novozymes.





Novozymes has accomplished many of the goals that it set out to achieve."

#### The alliance

In general, the partnership between the two companies works as follows: Novozymes provides the expertise in the research and development of new enzyme solutions, while Chr. Hansen is responsible for testing the enzymes in real dairy products and for sales and marketing and technical support for customers. So, after three years, how are the staff working on the front line getting along?

"I think this has been a very exciting time for all those involved in the alliance, and we have all learned a lot. The companies have worked very closely together and benefited from each other's ways of thinking. It's strange – even though we are both Danish companies, the cultures of the two companies are different, but, rather than being a problem, I think that this has led to a very friendly, creative and positive teamwork approach," says Nina Eriksen, project director at Novozymes.

Her counterpart at Chr. Hansen agrees. "It's fair to say that the combined compe-

tences of the two companies have allowed us to move ahead when either company alone would have encountered many more obstacles," says Ole Madsen.

#### What next for YieldMAX PL?

YieldMAX PL was launched in the USA in October 2005. Prior to launch, it was trialled successfully at a top-ten US cheese-maker, and that triallist became the first customer. The product will be released throughout Europe beginning in 2006.

"We strongly believe that YieldMAX PL will be successful, including in Europe. Judging by the interest in the product at the Food Ingredients Europe congress at the end of 2005, my feeling is that many European manufacturers are keen to get their hands on a product that can have such a dramatic effect on production capacity," says Ole Madsen.

Word-of-mouth is also an important aspect of innovation within the dairy industry. Despite ongoing consolidation, the market is still fairly fragmented, and not all producers have the opportunity to attend exhibitions. The majority of the world's dairy production is still accounted for by

small to medium-sized companies producing a wide variety of local and regional products. For example, there are still more than 2000 dairy companies in Europe. However, the alliance team at Novozymes/Chr. Hansen believes that once the gains in yield generated by YieldMAX PL are experienced first hand, its use will become commonplace in large and small production facilities alike.

#### The future

"YieldMAX PL is just the first revolutionary enzyme solution from Chr. Hansen and Novozymes. In the coming years, the alliance will continue to work on launching more new enzyme solutions, including solutions that increase yield or improve texture or taste in dairy products," concludes Nina Eriksen. ●

YieldMAX™ PL helps to boost the yield of cheese from milk by up to 2% and is particularly useful for cheeses such as mozzarella.

FOR MORE INFORMATION  
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