

The demand for the new “superfood” quark increases. By trimming capacity and using a single automation system, Limelco is on top of its dairy production.

BRINGING SUPERFOOD TO EUROPEAN CONSUMERS

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Photos: Tetra Pak, Istock.com/wundervisuals



THE NEW “SUPERFOOD” quark has taken Europe by storm. Health-conscious consumers appreciate the soft, fresh white cheese because it is high in protein but very low in salt and fat. During the past couple of years consumption of quark has increased dramatically, which has prompted Limelco, a medium-sized dairy in Belgium, to substantially expand its production capacity.

Limelco recognized the quark trend early on and in 2012 the company decided to upgrade its production systems at the Zonhoven site in the north east of Belgium.

“It was essential to expand our capacity and at the same time reduce our losses,” says Joel Budo, technical manager at Limelco. “We also needed to replace old machines, and update our automation,” he says.

Limelco’s Zonhoven site has five production lines. Four of them produce high-value products. One line is dedicated to producing white cheese (quark), a second to chocolate mousse, rice puddings and other desserts, a third to canned ambient desserts and a fourth to protein drinks, which is also a fast-growing product category for



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Limelco. An additional bulk production line produces skimmed milk powder.

Proven technologies and capabilities along with the established close relationship between the two companies made Tetra Pak an obvious partner for Limelco.



LIMELCO AT A GLANCE

Limelco is a medium-sized dairy in Belgium. The company processes more than 200 million litres of milk per year, and produces both its own labels for supermarkets and branded products for major multinational companies such as Danone, Nestlé and Masterfoods. Apart from producing fresh white cheese, Limelco has specialized in dairy desserts, milk drinks, ambient desserts and milk powder.

“Tetra Pak offered us the best total supply of the project,” says Budo. “The combination of processing equipment and the automation system is vital. We started the project by upgrading the milk reception and cleaning-in-place systems.”

Plant automation was crucial. The processing units and components were hooked up to different control systems, which made a total overview impossible. Numerous manual actions together with a lot of paperwork to handle product recipes and track products caused unnecessary product losses and took a lot of time for the operators.

With the automation system in place the company now easily keeps track of all parameters in its production. All processing units and components are connected to the automation system. The system eliminates most of the manual processes, which minimizes the risk for

human error. “We control production from beginning to end and get an overview on a single monitor,” explains Budo.

The automation system enables greater efficiency in production planning and use of equipment. That leads to less material and product waste, less downtime, and reduced consumption of energy and water. Another advantage is consistent product quality and assured food safety. The same production process can easily be repeated, and the system ensures that each package unit is fully traceable. “Our white cheese products must maintain consistent high quality, which we can monitor thanks to the plant system,” Budo says.

It took cautious preparation and planning to integrate the many stand-alone units and components of the processing lines into one automation system.

“The biggest challenge was to install the new system in a factory that is up and running all the time,” says Budo. “We had weekly meetings with Tetra Pak, where we discussed step-by-step what we did on the previous weekend, what would be the next step and how to organise it.”

As Limelco won a new contract from a supermarket chain, the need to produce more quark became urgent. The company quickly had to double its production capacity of 12,500 tonnes per year. The Tetra Pak team analysed the whole setup to find how to best improve Limelco’s production. One measure was to invest in more fermentation capacity, two new pasteurisers and a number of additional buffer tanks. Also, the setup of existing components was changed to improve efficiency and increase capacity. For instance, the team made it possible to run two separators in parallel.

“Flexibility is important,” says Budo. “Now we can produce with two separators at the same time; before, we could only use one at a time. The next step is to install an ultra-filtration unit. That will increase the efficiency of the processing line even further,” he says. ●

MAIN BENEFITS WITH THE SOLUTION:

- Product losses have been drastically reduced thanks to the implementation of an automation system from Tetra Pak.
- Limelco has doubled its capacity of white cheese production, from 12,500 to 25,000 tonnes per year.
- Better and consistent product quality.
- Good product traceability.

MORE INFO:

www.limelco.be
www.tetrapak.com/processing/cheese-whey
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