

Apliena has the power to change flour



In early 2000, Novozymes and Apliena, one of Spain's largest enzyme suppliers to flour mills, began a long-term cooperative research effort on altering the properties of flour.

Altering flour properties is a key factor for millers, bread improvers and bakers alike. Flour has naturally varying characteristics that can be standardised by adding ingredients such as enzymes to optimise the production of baked goods.

For Spain's millers, adapting the properties of flour in line with baking processes is especially important. While Spain has always relied heavily on imported wheat to meet the demand, wheat imports are expected to jump due to years of severe drought and declining agricultural output.

Both domestically produced and imported wheat (sourced from all over the globe) have inherently differing characteristics that may need to be altered in accordance with their intended use. This is a never-ending process because each new batch of wheat flour varies in quality.

Apliena's philosophy is to treat each client/inquiry in a specific and personalised way.

Weakening and strengthening

As one of Spain's more innovative suppliers to the milling industry, Apliena has invested significant resources in perfecting the altering of flour properties. One of the key tools that it uses is baking enzymes from Novozymes such as Fungamyl®, Pentopan®, Lipopan®, Gluzyme®, AMG and fungal proteases. Through its close collaboration with Novozymes, Apliena has been conducting research into both weakening and strengthening flour.

"We've looked at weakening flour using Fungamyl and Pentopan to increase the machinability of the subsequent dough, often with the objective of transforming the flour's properties to best suit Spanish baking requirements. And we often strengthen flour to make it optimal for pastry applications, in which case we use Gluzyme and Lipopan F," explains Daniel Solís, general manager of Apliena based in Barcelona with an R&D staff of five people. "We have been able to alter flour parameters according to the needs of the baker, allowing us to make whole new blends of flour."

Daniel Solís is a reference point in the Spanish baking industry due to his extensive technical knowledge and vast experience with enzymes.

Unique market, unique solutions

Spain is among the top five producers of flour in Europe. Apliena supplies 95% of the Spanish wheat improvement industry,

which consists of around 210 flour mills, both large and small, and has a notable presence in the mills of Portugal, in the production of improvers in Chile and Mexico, and in the Maghreb countries. Each mill has its own unique production methods and the processes are a tightly-guarded secret. Close customer contact is essential in the relationship between Apliena and the mill.

"Millers require in-depth technical service and technical analysis from Apliena, and Novozymes is there to support Apliena with the most innovative enzyme solutions," explains Ramiro Martínez Gutiérrez, who is responsible for baking enzymes at Novozymes Spain. "There is a lot of interest in enzymes because they are classified as processing aids and do not therefore need to be labelled."

"Every baking application needs a slightly different flour mix. Bakers and millers know what end-result they want, but they don't necessarily know that they can achieve it using enzyme technology," he adds.

Novozymes is privileged to collaborate with innovative milling industry suppliers such as Apliena. It is through these exchanges of expertise and ideas that existing enzyme solutions are enhanced and new ones created. ●



From Apliena (left to right): Daniel Solís, general manager; Jesús Villagrán, enzymatic wheat treatment expert; Inmaculada Rodríguez, responsible for R&D&I. Apliena has a complete test bakery at the service of its clients.

FOR MORE INFORMATION
rma@novozymes.com