

Agrano – organic yeast for the industry

Riegel-based Agrano GmbH & Co. has been producing Bioreal Organic Yeast since 1996. The company is a subsidiary of Hanover-based Martin Braun KG, which is a member of the Oetker Group. The company's product is used by bakers in the production of organically flawless bread as well as makers of 100% organic soups and spreads.



Bernd Bohrer, managing director of Agrano GmbH & Co., has been with the company since its establishment and was also responsible for planning the first production line. A second fermentation line was put into operation in May 2009 in a new company building. Agrano GmbH produces a broad range of products for industry based on yeast and lactic acid bacteria, including yeasts for bakeries, yeast extracts for soups and yeast powder for spreads and sourdough.

Organic yeast from biologically produced materials

"Conventional yeast is produced from molasses," said Bernd Bohrer explaining that conventional yeast production involves the fermentation of yeast in liquid culture media of 50 ml to 200 m³ in a multi-tier process designed to remove unpleasant odours and tastes. Various chemicals such as phosphates, sulphates, ammonia (nitrogen source) and sulphuric acid (for destroying other microorganisms) are added to the yeast and the broth is subsequently neutralised with sodium hydroxide. In contrast to conventional yeast production, organic yeast is made entirely from organically produced materials. "Agrano uses organic wheat flour and protein products of other types of organic grain for the cultivation of Bioreal Organic Yeast," explains Bohrer. Every new batch of yeast culture is produced from a pure culture of selected yeast strains.



Agrano GmbH' s yeast laboratory
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Sterile technology used for the production of yeast
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Since the company does not use acids and lyes for the production of yeast, the entire process has to be carried out under sterile conditions. "We do not use chemicals and we are the only yeast producer in the world that works under sterile conditions," said Bohrer. Hot steam is used for disinfection and the pH value does not have to be adjusted. It goes without saying that the enzymes used to break down the raw materials are produced with GMO-free organisms. The three-tier fermentation process

is based on a fed-batch method and each of the three steps takes about 24 hours, including sterilisation and yeast harvest. According to a study published by the German Federal Institute for Grain-, Potato- and Fat Research in Detmold in 2001, Bioreal Organic Yeast can be used for all types of dough and applications without restrictions of any kind.

Biopolymers in yeast fermenters



Yeast tank
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Within the European Union, organic yeast is currently subject to a temporary regulation. The EU directives specifying the use of organic yeast for organic products only became effective in January 2009. From 2014 onwards, yeasts will be considered an agricultural ingredient requiring yeast-containing organic products to use organic yeast. Prior to 2009, yeasts were counted as microorganisms and could be used for any type of product; the production of organic yeast was not subject to regulation by the European Union.

In summer 2009, Agrano GmbH moved into new premises in Riegel and set up a new yeast production line. "Now it is also possible to use the second Agrano production line for other companies' scale-up procedures," said Bohrer explaining the company's plans to start working in cooperation within the Biopolymers/Biomaterials Cluster to produce biopolymers in the company's fermenters. "We have already gained some experience in biopolymers and are able to carry out the entire scale-up process up to production," explained Bohrer.

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