

BAKING UPDATE

Practical technology from Lallemand Inc.

Regulatory Aspects of Organic Yeast

Stringent new regulations will soon govern the use of yeast in organic breads and baked goods as well as how yeast needs to be produced so it can be certified as an organic ingredient.

OCTOBER 2012: US REGULATIONS CHANGE FOR ORGANIC BREADS

The United States Department of Agriculture (USDA) has ruled that, effective October 21, 2012, "When used as food or a fermentation agent in products labeled as 'organic,' yeast must be organic if its end use is for human consumption; nonorganic yeast may be used when organic yeast is not commercially available." (*Federal Register*, Vol. 77, No. 109/Wednesday, June 6, 2012/ Rules and Regulations, page 33292, section 205.605).

After October 21, 2012, a baker must use organic yeast in a yeast-containing food product if it is to be labeled as organic. If a product is labeled as made with organic ingredients, or if no marketing claim is made, then conventional yeast may be used.

Previously, the USDA made allowance for noncertified minor ingredients in products labeled as organic. The National Organic Standards Board was petitioned for change in 2003 by a commercial party.

JANUARY 2013: EUROPEAN REGULATIONS CHANGE FOR ORGANIC YEAST

Beginning December 31, 2013, yeast will be considered an ingredient of agricultural origin [Article 1.3(b) 1254/2008]. From then on, nonorganic yeast or yeast products can only be used for organic food if they are (a) added in an amount of not more than 5 percent (assuming no other nonorganic ingredients are added) and (b) not mixed with organic yeast or yeast products [Articles 19.2 R 834/2007 and 27 1(b) R

Continued

The Organic Trend in Baking

THE BREAD AISLE has seen an explosion of new products with better-for-you claims, including whole grain, natural, no or low trans fats, and organic. These claims are growing sales in segments such as hamburger rolls and English muffins. To compete, breadmakers need to innovate and offer healthy or premium products, or both.

Organic products are becoming mainstream. Selections once found only in health food stores are now widely available in supermarkets, club stores, big-box stores, and at other food retailers. Many retailers have introduced private-label lines of organic products, and manufacturers continue to introduce large numbers of new organic products.

In a 2002 report published by Business Insights, *Future Innovations In Bakery: The Mega Trends of Convenience, Health and Indulgence*, organic bakery products were depicted as "rapidly gaining in popularity, with average annual growth rates of between 10 and 25 percent across Europe over the last five years." According to a 2009 report from the Economic Research Service of the USDA, organic foods occupied prominent shelf space in the produce and dairy aisles of most mainstream US food retailers, while offerings of organic meats, eggs, grains, beverages, and breads had increased. The

Organic Trade Association's 2012 Organic Industry Survey, released on April 23, 2012, reported that bread and grains accounted for 10.7 percent of all US organic food sales in 2011.

WHY BUY ORGANIC?

Consumers generally purchase organic products because they believe them to be healthier and better for the environment. Motivations for buying organic include—

- Avoiding synthetic chemicals, such as pesticides and fertilizers.
- Perception that organic foods have a higher nutritional value.
- Concern over antibiotic drug residues.
- Concern over the health effects of genetically modified foods.
- Concern for the environment.
- Perception that organic foods are safer and less likely to cause food poisoning.

A factor that consistently influences the likelihood of a consumer's buying organic products is education. Consumers of all ages, races, and ethnic groups who have higher levels of education are more likely to buy organic products than are those with less education.

BECOMING CERTIFIED AS ORGANIC

The term 'organic farming' was first defined by Lord Northbourne in his 1940 book, *Look to the Land*, out of his conception of 'the farm as organism.' Northbourne described a holistic, ecologically balanced approach to farming—in contrast with what he called 'chemical farming,' which relied on 'imported fertility' and 'cannot be self-sufficient nor an organic whole.' Today, organic foods are thought of as those produced without the use of pesticides, fertilizers, herbicides, antibiotics, bioengineering, hormones, or ionizing radiation.

To sell bread or baked goods labeled as organic, bakers must go through a certification process. Requirements for organic certification vary by country and generally involve a set of standards for production, processing, storage, packaging, and shipping. For an American baker, this means avoiding the use of synthetic chemicals not on the National List of Allowed and Prohibited Substances (e.g., food additives) and genetically modified organisms. They have to keep detailed written production and sales records (audit trail), maintain strict physical separation of organic products from noncertified products, and undergo periodic on-site inspections. Of course, organic baked products must be baked with ingredients that are organically grown.

LABELING A FOOD AS ORGANIC

The United States, Canada, and the European Union have comprehensive organic legislation, and the term 'organic' may be used only by certified producers.

United States. In the US, federal legislation defines three levels of organic foods. Products made entirely with certified organic ingredients and methods can be labeled '100% organic.' Products with at least 95 percent organic ingredients may be labeled 'organic.' Both of these categories may also display the USDA Organic seal. The third category contains a minimum of 70 percent organic ingredients and may be labeled 'made with organic ingredients' but may not display the USDA Organic seal. Products may also display the logo of the certification agent that approved them. Products made with less than 70 percent organic ingredients cannot be advertised as organic but can list individual organic ingredients as such in the product's ingredient statement.



Canada. Organic certification was implemented at the Canadian federal level on June 30, 2009. Certification is mandatory for agricultural products represented as organic in import, export, and interprovincial trade or that bear the federal organic logo. In Québec, provincial legislation provides government oversight of organic certification within the province, through the Québec Accreditation Board (Conseil D'Accréditation Du Québec).



Europe. Member countries of the European Union have developed a comprehensive organic legislation, which was implemented as part of the EU-Eco-regulations in 1992. Supervision of certification bodies is handled at the national level. In 2009, the European Commission issued a European-wide label for organic food, the use of which has been mandatory throughout the EU since July 2010.



The US has equivalence arrangements with Canada and the European Union, meaning that organic products certified in the United States, in Canada, or in Europe may be sold as organic in the other regions. The US also has recognition agreements with New Zealand, India, the United Kingdom, Japan, Taiwan, Israel, and Denmark.

Regulatory Aspects of Organic Yeast *(Continued)*

889/2008]. When yeast is part of the 95 percent by weight of the ingredients of agricultural origin, it has to be organic [Articles 23.4 R 834/2007 and 27 2(c) R 889/2008]. This change in yeast's status of origin is significant because, before 2009, yeast could not be sold as organic since it was not considered a product of agricultural origin.

In 2007, yeast came under the scope of new regulations concerning organic production and labeling of organic products. Council Regulations (EC) 834/2007, Article 19.2.a, and (ECC) N° 2029/91, Article 5.3 (a), stated that processed foods (produced mainly from ingredients of agricultural origin) could be labeled as organic only when at least 95 percent by weight of the ingredients of agricultural origin were organic. Yeast had a double status, being both an organic product and a nonagricultural ingredient as 'microorganism preparation'; the regulation only forbade the mixing of organic and nonorganic yeast in organic products.

In July 2008, after a group of independent experts made recommendations on the additives and processing aids necessary for its production, a new set of rules were provided for the production of organic yeast. To allow the industry to adjust to this change in yeast's status from nonagricultural to agricultural, until December 30, 2013,

organic yeast will not play a role in the determination of whether or not the final processed food can receive organic status [Articles 19.2 R 834/2007 and 27 1(b) R 889/2008].

ORGANIC YEAST PRODUCTION

Published on December 15, 2008, Commission Regulation (EC) N° 1254/2008 details the rules for organic yeast production—

- Organic substrates must be used, with a maximum of 5 percent conventional yeast extract (this percentage will be confirmed in 2013).
- For regulating pH, citric and lactic acid, sodium carbonate, and calcium chloride may be used.
- Gases for packaging must be nitrogen, oxygen, or carbon dioxide.
- For greasing and antifoaming, only vegetable oil may be used.

The production costs of organic yeast are much higher than those for conventionally grown yeast due to these restrictions, the higher cost of certified organic ingredients, and reduced production yields. These production restrictions may also impact the yeast's baking performance and nutritional profile.

Lallemand Now Offers Organic Bakers Yeast

LALLEMAND organic bakers yeast products include Fresh Organic Yeast (for consumer and retail baking), sold under the Wieninger brand, and Dry Organic Yeast (500 g), a new addition to the Instaferm® family. Both products are produced in Lallemand's organic-certified plants. Lallemand organic yeast products are made using organic substrates throughout the production process.



Lallemand continues to innovate its products and will soon be able to offer an organic Vita D® yeast, which is a nonfortified and vegetarian source of vitamin D. This presents an opportunity for bakers to take advantage of this nutritional edge when developing new organic baked products.

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BAKING UPDATE

Lallemand Baking Update is produced by Lallemand Inc. to provide bakers with a source of practical technology for solving problems. If you would like to be on our mailing list to receive future copies, or if you have questions or comments, please contact us at:

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