

# BAKING UPDATE

IBIE 2016

Practical technology from Lallemand Inc., parent of American Yeast, producers and distributors of Eagle® yeast, fresh and instant.

## Use Organic Yeast for Organic Bread

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).

The global market for Bakery Products is projected to exceed UD\$485 billion by 2020, driven by surging popularity of healthy, organic, and all natural baked goods. Consumer interest in the organic label continues to grow, encouraging more food manufacturers to reconsider their product range. Organic foods generally are grown with fewer chemicals and artificial ingredients and are produced according to a strict set of government standards. Foods cannot be labeled organic unless their production adheres to those rules, and those extra steps mean prices for organic products are generally higher.

Lallemand adheres to these standards; organic yeast is grown and processed according to the principles of organic agriculture. The raw materials on which the yeast is grown are derived from organic agriculture. The organic regulation in the EU permits a short list of processing aids (max. 5%) to enable a consistent production and to grow the desired yeast.

### LALLEMAND OFFERS ORGANIC BAKERS YEAST

Lallemand organic bakers yeast products include fresh organic yeast, sold under the Wieninger Bio and Malteserkors® brands, and dry organic yeast, an addition to the Instaferm® family. All of these organic products are produced in Lallemand’s organic-certified plants in the EU. Both the organic fresh yeast and the organic dry yeast are available for commercial bakers and for consumers. ●

## Vitamin D Levels to be Declared on Label

The FDA recognizes the importance of vitamin D for its role in bone health and acknowledged that Americans don’t always get enough of vitamin D according to nationwide food consumption surveys (<http://www.cdc.gov/nchs/nhanes/>) and when lacking is associated with increased risk of chronic disease.

In May 2016, the FDA announced changes to the nutrition facts label, adding vitamin D to the list of nutrients required to be declared. By July 26, 2018, food manufacturers must declare the actual amount of vitamin D, in addition to the percent daily value, which should be calculated using the updated daily value of 20 µg (600 IU). See on the right the appearance of the new Nutrition Facts.

### OTHER REGULATORY LANDMARKS FOR VITAMIN D

On August 29, 2012 the FDA approved a petition submitted by Lallemand in 2009 on behalf of the American baking industry to allow more vitamin D into bread and baked goods, raising the maximum level from 90 to 400 IU/100 grams.

On January 13, 2014 a positive scientific opinion on vitamin-D2-rich baker’s yeast (*Saccharomyces cerevisiae*) was issued by the EFSA Panel on Dietetic Products, Nutrition and Allergies. The Standing Committee on Food Chain and Animal Health approved the novel food ingredient request for use in yeast-leavened bread, rolls, fine bakery wares, and food supplements. Marketing authorization was received on June 3, 2014. ●

| Nutrition Facts               |                      |
|-------------------------------|----------------------|
| 8 servings per container      |                      |
| <b>Serving size</b>           | <b>2/3 cup (55g)</b> |
| <b>Amount per serving</b>     |                      |
| <b>Calories</b>               | <b>230</b>           |
| % Daily Value*                |                      |
| <b>Total Fat</b> 8g           | <b>10%</b>           |
| Saturated Fat 1g              | 5%                   |
| Trans Fat 0g                  |                      |
| <b>Cholesterol</b> 0mg        | <b>0%</b>            |
| <b>Sodium</b> 160mg           | <b>7%</b>            |
| <b>Total Carbohydrate</b> 37g | <b>13%</b>           |
| Dietary Fiber 4g              | 14%                  |
| Total Sugars 12g              |                      |
| Includes 10g Added Sugars     | 20%                  |
| <b>Protein</b> 3g             |                      |
| Vitamin D 2mcg                | 10%                  |
| Calcium 260mg                 | 20%                  |
| Iron 8mg                      | 45%                  |
| Potassium 235mg               | 6%                   |

\*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

## The Opportunity – Bread a Daily Source of Vitamin D

As humankind becomes increasingly urban, our lifestyle is reducing the exposure of skin to sunlight and reducing the ability of our body to produce vitamin D. The “sunshine vitamin” deficiency is being considered more and more a threat to optimal health.

A fundamental premise of the Dietary Guidelines is that nutrients should come primarily from foods. Since there are few natural sources of vitamin D (fatty fish and egg yolks) and they are often not consumed on a daily basis, fortification is necessary for increasing vitamin D intake. The best-understood function of vitamin D is in regulating the absorption of calcium from the small intestine and the healthy mineralization and growth of bone and teeth. Vitamin D deficiency is a problem particularly for children, as it impairs bone development and jeopardizes optimal peak bone mass. Severe vitamin D deficiency results in rickets in children and osteomalacia in adults.

Lallemand developed a process that converts the sterols naturally occurring in yeast to vitamin D2. The result is Lallemand Vita D Bakers Yeast, a natural and vegetarian source of vitamin D that can enhance the vitamin D content of baked goods. Bread deserves an important place in the diet because it is inexpensive, low in fat and provides a range of nutrients, and now vitamin D too. The company went through several steps to characterize its Vita D Bakers Yeast to ensure its safety and functionality, and the stability and bioavailability of the vitamin D it contains. The results showed that the Vita D Bakers Yeast is a convenient and safe ingredient to enhance the vitamin-D content of yeast-containing baked products, and it has the same gassing power as conventional baker’s yeast. ●

## Achieving More Flavor and Aroma with Florapan®

Always ahead of the curve, Lallemand has developed starter cultures and a new range of aromatic yeasts, the Florapan® products which can produce a generous bouquet of fruit and floral aromas. These products give new options to bakers that want to stand out from the crowd and offer more aromatic and flavorful products.

### STARTER CULTURES

Florapan® starter cultures have been developed to produce European-style levain (sourdough) in a single, easy step. They are composed of lactic acid bacteria, in combination, or not, with aromatic yeasts that are specially selected for their ability to produce organic acids and aroma compounds that give the finished bread a unique sourdough flavor. These specially selected strains also provide more predictable fermentation flavor and timing during sourdough fermentation, for consistency and stability among your different productions. Florapan® starter cultures can improve or maintain a good shelf life, by providing both antimolding and anti-staling properties. In traditional French-type sourdough bread, Florapan® starter cultures can also help to improve crumb structure and impart an aroma and a taste that are mildly acidic without having a strong vinegar smell.

### AROMATIC YEAST

With limited fermentation activity, Florapan® yeasts are perfect for pizza dough and bakery products with unique flavor profiles. These strains of yeast produce aromatic compounds such as ethyl hexanoate (apple, banana), ethyl octanoate (pineapple, pear) and ethyl decanoate (hazelnut, floral). Florapan® aromatic yeasts are used with, or in place of, conventional baker's yeast to produce baked goods with unique flavors. They are used with a preferment step or an extended proof time to enhance the aroma of the baked product. Florapan® aromatic yeasts are special strains of wine and beer yeasts that have been selected for their sensory characteristics.

Flour contains the precursors of aromas, which can be revealed with the action of enzymes produced by selected yeasts. Lallemand's aromatic yeasts can achieve the same type of transformation in flour fermentation as in wine, revealing new aromas and mouthfeel. ●

## Post Baking Application Yeast to Control Mold Growth

Consumers now pay more attention than ever to their food. Many customers read labels very carefully prior to purchasing a product. The claim "free from" or "natural" is no longer just a trend; it has become a benchmark. This is pushing bakers to "clean-up their labels" and the best way to do so is to replace chemical sounding names by natural ingredients.

Lallemand "clean label" mold inhibition patented technology is based on the post-baking spray application of live yeast to packaged baked goods. The yeast remains viable and creates a controlled atmosphere within the package inhibiting mold growth and extending shelf life.

### BENEFITS OF ESSENTIAL® FRESH TECHNOLOGY:

- Provides a clean label, natural solution
- No labeling change for products already containing yeast
- Total product coverage is not required
- Anti-mold / aromatic effect is not lost after opening and closing the package
- Used by itself it provides a shelf life similar to calcium-propionate
- Used in conjunction with other mold inhibitors it provides a synergistic effect to further extend shelf life. ●

Patented in Africa (ARIPO), Algeria, Angola, Australia, China, Egypt, Israel, Mexico, New Zealand, Philippines, Singapore, South Africa, USA with patents pending in 78 additional countries.

## Non-GMO Yeast

Scientists and consumer and environmental groups have cited many health and environmental risks with foods containing GMOs. As a result of the risks, many people in the United States and around the world are demanding "non-GMO" foods.

With the increasing North American consumer demand for non-GMO products, raw material suppliers who want to be part of this initiative are requested to provide Non-GMO products.

Although Lallemand's yeast products are not genetically modified, the company has taken the extra step in order to meet the more stringent Non-GMO Project standards. The Non-GMO Project is definitely the strictest Non-GMO certification program currently available. The standard goes beyond the absence of genetically modified DNA, and investigates the processes used to prepare all substrates, inputs and processing aids used to produce the yeast. This makes the NGP Verification suitable for consumers who choose to

stay away from GMOs. All Lallemand yeast products are grown from non-GMO yeast strains and have not been genetically modified – therefore "GMO" free. ●



## LALLEMAND BAKING UPDATE

*Lallemand Baking Update* is produced by Lallemand Inc. to provide bakers with a source of practical information and 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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