

# Organic Yeast

Lallemand is a global leader in the development, production and marketing of yeast, bacteria and specialty cultures. Our offer includes organic nutritional yeast and organic yeast extracts.

## Bio-Lyfe®

Range of organic yeast extracts with natural 5' nucleotides that help to bring out taste in savory applications. Strong savory flavor donator. Available as low salt and as 40% salt.

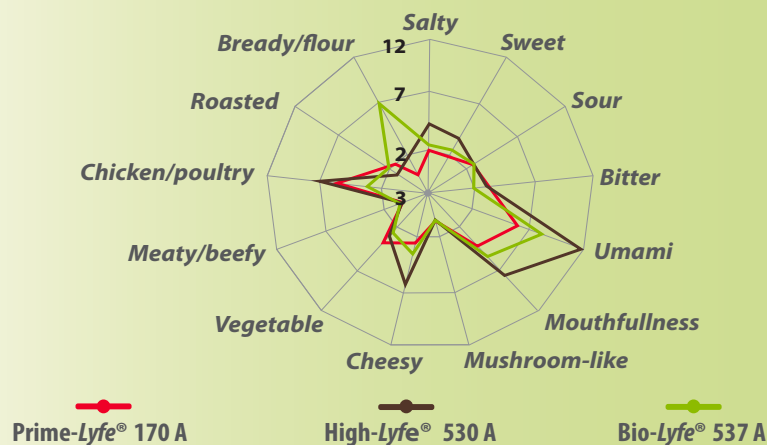
- Umami notes
- Helps to bring out savory notes in soups, sauces & snacks
- Allows for longer lasting flavors in your seasonings and snacks applications
- Helps with sodium reduction
- Helps to bring out meaty notes in vegetarian or vegan meat analogues

## Bio-Engevita®

Organic premium nutritional whole cell yeast, natural source of proteins, vitamins and minerals for food and supplements.

- Contributes positively to the nutritional profile of your product including nutrients, high proteins and bioavailable B-vitamins and minerals.
- Yeast protein contains all essential amino acids and has a high proportion of leucine - essential for the stimulation of the muscle protein synthesis.
- Contains significant amount of beta-glucans that can improve food rheological properties, gelling, water and oil-holding properties, without impacting its taste or odor
- Ideal ingredient to fortify food products or for dietary supplements and direct consumption

The graph shows the flavor attributes of our standard yeast extracts (Prime-Lyfe® 170 A, High-Lyfe® 530 A) and our organic yeast extract (Bio-Lyfe® 537 A):



## Flavor Attributes of Bio-Lyfe® 537 A

Lallemand's organic ingredients are:

- Clean Label
- Non-GMO
- Gluten-free
- Kosher
- Vegan



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## WHAT DOES ORGANIC MEAN FOR YEAST?

### General Comparison Between Conventional and Organic Production

	Conventional Production	Organic Production
<b>SUGAR</b>	Beet molasses Cane molasses Glucose syrup Saccharose	Organic molasses Organic grain
<b>NITROGEN</b>	Ammonia or similar chemicals	Plant derived (i.e. grain, soy, pea, ...) Yeast
<b>VITAMINS &amp; MINERALS</b>	Synthetic vitamins and minerals added	Not permitted

### WHY ORGANIC?

The British Soil association organized a survey in 2014 to document the main reasons for buying organic foods. Among top reasons, consumers understand organic products to be more natural and unprocessed, healthier for themselves and the family, containing less pesticides and other chemicals. Nature and environment, animal welfare, food safety and ethical concerns also play a role in the choice for organic.

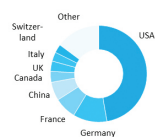
According to Organic Monitor President, Amarjit Sahota, the global sales of organic food and drink grew to 75 billion Euros by 2015. Europe and North America are the two regions to generate the bulk sales, with North America accounting for over half of international sales.<sup>1</sup>

1. Willer, Helga and Julia Lemoud 9Eds.) (2017): The world of Organic Agriculture. Statistics and Emerging Trends 2017. Research Institute of Organic Agriculture (FiBL), Frick and IFOAM - Organics International, Bonn. Version 1.3 of February 20, 2017.

### WORLD: ORGANIC RETAIL SALES 2015



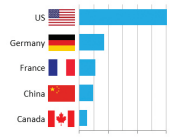
The largest single market is the USA followed by the EU (27.1 billion €) and China. By region, North America has the lead (38.5 billion €), followed by Europe (29.8 billion €) and Asia.



Distribution of retail sales value by country 2015



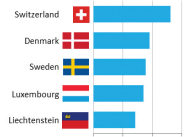
The countries with the largest market for organic food are the United States (35.8 billion €), followed by Germany (8.6 billion €), France (5.5 billion €) and China (4.7 billion €).



The five countries with the largest markets for organic food 2015



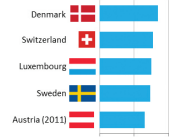
Switzerland has the highest per capita consumption worldwide, followed by Denmark and Sweden.



The five countries with the highest per capita consumption 2015



The highest shares the organic market of the total market is in Denmark, followed by Switzerland, Luxembourg, Sweden, and Austria.



The five countries with the highest organic shares of the total market 2015

Source: FiBL survey 2017 [www.organic-world.net](http://www.organic-world.net)

### REGULATORY CORNER

Our products are made in accordance with the EU organic regulation (EC 834/2007). Since June 1st 2012 an equivalence agreement between the EU and USA has been effective. This means that as long as the terms of the arrangements are met, organic products certified to the USDA organic or European Union (EU) organic standards may be sold, labeled and represented as organic in both Countries. This set of rules will change in the near future. On 24 March 2014, the EU Commission published a proposal for a new organic regulation. After being discussed by the EU Parliament and Council, on 14 June 2018 the new regulation was published on the EU Official Journal. It will apply from 1 January 2022.

#### Production rules for food processors

In the new regulation, the use of natural flavours will be strongly restricted. Today, all natural flavours are allowed, while from 2022 on only natural flavours originating from the mentioned ingredients can be used in organic processing. For example, only "natural lemon flavouring" will be allowed, which means that the flavouring is at least 95% obtained from lemon. Rules for obtaining organic flavours will also be detailed.