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How do the Lesaffre experts adapt to the different perceptions and appreciations of flavors around the world?

In a survey carried out between August and October 2019 among consumers in seven different countries¹, Lesaffre, a global player in fermentation, shows that people around the world do not all have the same knowledge and appreciation of the five flavors. In order to respond to these differences and to meet the needs of its customers on all continents, Lesaffre has been developing its expertise in sensory analysis at the heart of all its agri-food activities for more than 15 years.

Differences in appreciation and perception of flavors around the world

Flavors are the main structures of a food, they are our first impression in the mouth when a product is sweet, salty, bitter, sour or umami. But how are these flavors perceived? Which foods are they associated with? Lesaffre's sensory analysis experts have carried out a survey of consumers in seven countries to better understand their relationship with flavors.

Unsurprisingly, it is the sweet taste (95%) - closely followed by the salty taste (91%) - that is the best known in the different countries. It is also the most appreciated. However, the food most associated with the sweet taste is not the same everywhere: if France and Brazil associate the sweet taste with chocolate, it is the fruits associated with it in Mexico, the baklava in Turkey or even honey in Russia. On the other hand, the acid taste is the least popular in foods in each of the countries surveyed and is globally massively represented by lemon, with the exception of Vietnam and Russia, where it is mostly associated with Canh <u>Chua (a traditional</u> soup) and kefir respectively.

"If we take the example of acidity, consumption habits and preferences differ from one country to another. This is why it is necessary to adapt the acidity in our products to meet the expectations of all our customers, wherever they are. Our perception of acidity in sourdough bread, for example, is linked to the detection of protons present in many acids, such as lactic or acetic acids, which are produced by bacteria during fermentation. Sensory analysis is essential to detect and characterise acids, and uses many methods such as the Time-Intensity method, which evaluates how long this acidity is perceived. This parameter can also influence consumer preferences. "explains Marine Baudin, an expert in sensory analysis from the Baking Center™ at Lesaffre.

¹ Study carried out with a panel of 790 consumers in France, Turkey, China, Vietnam, Mexico, Brazil and Russia. Press contacts : Valérie Lassalle and Chloé Bencivengo –WELLCOM –Tél. +33 (0)1 46 34 60 60 lesaffre@wellcom.fr



Bitterness is also a taste not very appreciated by the different countries but, in contrast to acidity, each country associates it with a very different food: chicory in France, chocolate in Mexico... Another flavour with which the population is unfamiliar is umami. Literally meaning "delicious taste" in Japanese and often associated with Asian culture, umami is nevertheless naturally present in many foods, such as tomatoes, parmesan cheese and mushrooms. This distinctive taste, brought by certain specific compounds, offers many advantages in food formulation, bringing richness and intensity to the taste of products. Umami also allows significant reductions in salt content without compromising the taste of the finished product.

Lesaffre, a global player that adapts to its customers' local specificities

This study provides a better understanding of the influence of cultural anchoring on the knowledge and appreciation of flavors and the complexity of detecting flavors. In order to respond to these differences and to the needs of its clients spread across all continents, Lesaffre draws on its expertise in sensory analysis. A total of eight sensory analysis laboratories around the world (4 in France, Argentina, China, Singapore and Turkey) are working to improve the organoleptic quality of Lesaffre products. Their mission is to create synergies between the business units and experts in the various fields of activity in order to develop products and solutions that are tailored to meet the specific local requirements of each Lesaffre customer. Using their keen sense of smell, sight, taste, touch and hearing, more than 200 testers analyse each Lesaffre product and study the subtle nuances of the finished products.

"Expert panelists are highly trained testers who can measure any type of taste on a given product (bread, biscuit, drink...). The measurement is objective, a bit like machines could do. Consumer tests, on the other hand, are a subjective measure of product appreciation: it is therefore absolutely necessary to question consumers representative of the country and the target market. At Lesaffre, we only carry out descriptive panels of experts. Since 2016, we have begun to open sensory centres in several regions of the Group (China, Turkey, Singapore, etc.) to meet the increase in sensory demand.

For certain very specific tastes, local experts provide a more refined perception since they have been used to consuming them regularly since childhood, unlike an expert tester trained in this taste or flavour only within the framework of Lesaffre tests. There is therefore a double advantage to the creation of these local sensory centres: expertise at the heart of the requests, which is therefore more responsive, but also expertise which is sometimes more precise, capitalising on a regional cultural base. "explains Camille Dupuy, head of sensory analysis at Lesaffre.

In the case of umami, it is Lesaffre's Business Unit, Biospringer - which aims to bring pleasure by improving the taste, nutritional and sensory properties of food and beverages - which has developed a range of yeast extracts with a high umami content called Springer®2000.

Thanks to sensory analysis, **Biospringer's expert panel evaluations enable the characterisation of the umami flavour in yeast extracts**. Trained panelists carry out their tests in sensory booths equipped with red light. Using the Time-Intensity method, this panel of 25 people rate the intensity of the flavour perceived throughout the tasting on a scale of 0 to 10.



The aromatic profiles resulting from these sessions enable R&D to **develop ingredients adapted to different geographical markets.** Culinary applications of these ingredients such as the Springer® 2020 range from fish sauce in Asia to Bolognese sauce in Europe. The addition of this yeast extract intensifies the tomato note and umami flavor in particular.

"As a global player in yeast products and yeast derivatives, Lesaffre aims to provide tailor-made taste solutions for all regions of the world, so that everyone can experience the perfect flavor for their food, whether in bread, beer, biscuits or vegan preparations. "**explains Camille Dupuy, head of sensory analysis at Lesaffre.**

ABOUT LESAFFRE

A key global player in fermentation for more than a century, Lesaffre, with a 2,2 billion euro turnover, and established on all continents, counts 10,700 employees and more than 70 nationalities. On the strength of this experience and diversity, we work with customers, partners and researchers to find ever more relevant answers to the needs of food, health, naturalness and respect for our environment. Thus, every day, we explore and reveal the infinite potential of microorganisms.

To nourish 10 billion people, in a healthy way, in 2050 by making the most of our planet's resources is a major and unprecedented issue. We believe that fermentation is one of the most promising answers to this challenge.

Lesaffre - Working together to better nourish and protect the planet

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