

Springer® Precursor 401



Discover **our new yeast extract rich in sulfur compounds** to develop **vegan** and **natural red meat flavors** through Maillard reaction.



Scan below to
learn more



* According to ISO TS 19657:2017



Consumers increasingly demanding when it comes to healthy eating

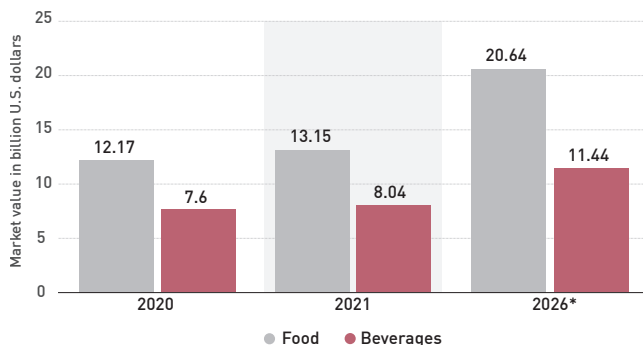
+ 72%

are choosing ⁽¹⁾ natural products **to avoid additives and preservatives** as much as possible when 71% are willing to buy products that positively **boost the nutrition** or benefit how **the body functions** (e.g., high in protein, superfoods).



And manufacturers are responding with innovations

Market value of **clean label food and drink** products worldwide



+ 51%

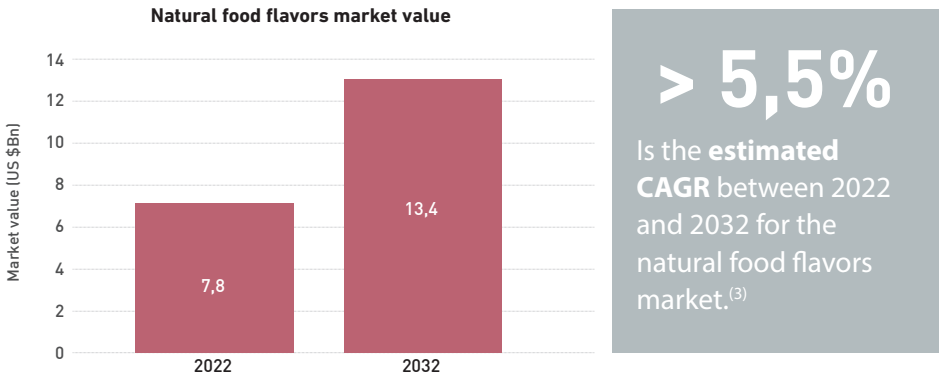
is the estimated 2026 market value growth ⁽²⁾ for **clean label food and beverages**.

⁽¹⁾ Innova Health & Nutrition Survey 2020 (average of 10 countries)

⁽²⁾ BIS Research. (November 2022) – via Statista

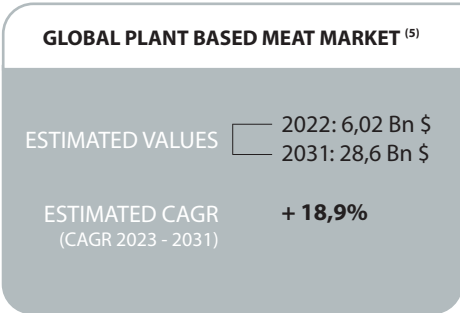
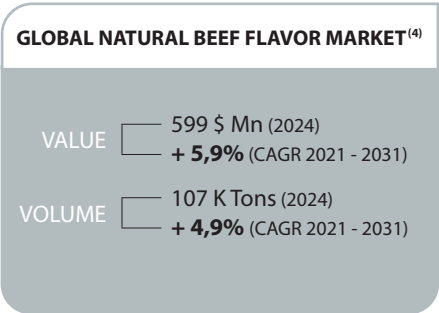
Natural food flavors market focus

The natural food flavors market is a fast growing market, representing a market value of 7,8 US \$Bn in 2022. This market is in expansion due to an increasing awareness about the **benefits of natural ingredients** and due to **regulations** regarding the use of artificial flavors in food products.



Evolution of natural beef flavor and plant-based meat markets

The natural beef flavor and plant-based meat markets are two **markets in expansion**. The transition to **more sustainable food systems** is an important growth factor for both markets.



⁽³⁾ Global Market Insights, 2023
⁽⁴⁾ Transparency Market Research Study, 2021
⁽⁵⁾ Straits Research, 2023

Springer® Precursor 401

A unique yeast extract to create authentic red meat flavors

Springer® Precursor 401's offer is **unique** in its **composition and flavor profile**:

- This product has a specific **natural combination** of **amino acids**⁽¹⁾, **peptides** and key **sulfur compounds**⁽¹⁾
- It allows **development of specific beef and red meat notes** in a cooking / Maillard reaction
- It contains **high levels of free amino acids** and especially **free glutamic acid**, bringing high reactivity and powerful flavor properties



An innovative solution to help you meet your specific needs

Springer® Precursor 401, an **ingredient with many benefits**.

MEET YOUR CHALLENGES	DISCOVER OUR INGREDIENT'S BENEFITS
Create authentic vegan red meat flavors	With its natural combination of amino acids, peptides and sulfur compounds, our yeast extract Springer® Precursor 401 can be used to create your own vegan beef (& other red meat) flavors .
Use environmental friendly ingredients	A fermentation-derived ingredient that promotes the transition to more sustainable food systems .
« Natural flavor » final labeling	The final flavor can be labeled as « natural flavor » depending on: the process, other ingredients and local regulations.

An ingredient that comes with the following guarantees



*According to
ISO TS 19657:2017

⁽¹⁾ Analytical data available, please contact us for further details

Springer® Precursor 401 application: Maillard reaction

Use Springer® Precursor 401 with a source of reducing sugar and adjust the process parameters (time / pH / T° / pressure / other raw materials) to **create an endless variety of beef and other red meat flavors**.



Reaction flavor example: Beef demo with Springer® Precursor 401

1,5 hours at 96,5°C – no pH regulation – Dry Matter: 40%

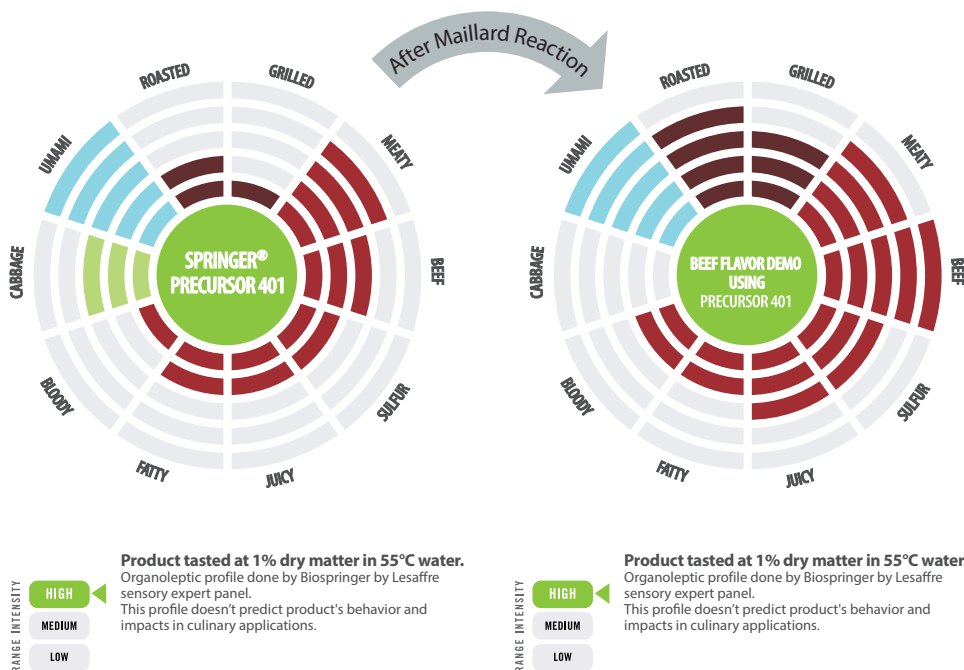
Springer® Precursor 401

99,7%

+

Xylose

0,3%



Discover the rest of our Springer® Precursor range

A unique range of **yeast extracts**, selected and characterized, to **create authentic roasted and meat flavors**

- A selection of yeast extracts that enable the development of specific notes during a cooking reaction
- A range dedicated to the development of **authentic meat flavors**
- Characterized yeast products to ensure efficiency in final application



DESIGNED

Mastered production process, benefiting from **150 years of expertise in fermentation** and yeast extract.



CHARACTERIZED

- Dedicated team of flavorists
- Defined **amino acid profiles**
- Targeted **compound content**

Springer® Precursor, a complete range of yeast extracts to create natural and vegan meat flavors

Springer® Precursor 201



Authentic
white meat
flavors

Springer® Precursor 301



Authentic
**chicken and other
poultry** flavors

Springer® Precursor 401



Authentic
**beef and other
red meat** flavors

NEW

Biospringer by Lesaffre brings expertise with our Sensory Lab and Culinary Centers

Sensory & flavor development expertise

Biospringer's Flavorists and Sensory Scientists are bringing high expertise and experience in **natural yeast ingredients** and serve to support innovation in consumer products that taste great and respond to new trends in the food sector.



About our Sensory Lab

Our sensory scientists are using best practices to make sure that the **sensory data they collect is as robust, objective, precise and unbiased** as possible.

Sensory tests are conducted by **highly trained sensory panelists** in purpose-built booths that provide a controlled environment for all aspects of product evaluation.

Our Sensory Lab has developed an **objective analysis of sensory cues** that are not influenced by extrinsic factors such as branding or pricing.



Together, they have a deep understanding of:



How our products perform, both on their own and as part of the food matrix



Local requirements (technology, formulations, consumer preferences)

NATURAL FERMENTATION-BASED SOLUTIONS

FOR TASTIER AND HEALTHIER FOOD

Biospringer by Lesaffre is a **key player and global producer for the food industry**, with 10 production plants, a network of commercial teams and Culinary Centers around the world and a team of technologists and R&D.

Our natural origin ingredients from yeast fermentation include yeast extracts, dried food yeasts, yeast-based flavors and yeast protein.



* In Brazil, Biospringer dry blending operation.

To learn more about us, please visit
<https://biospringer.com>

BIOSPRINGER is a trademark and it does not imply systematically that the product is organic according to EU Regulation 2018/ 848, the status of each product supplied should be checked on the technical documentation.