Springer® Proteissimo™ 102

PLAY with PROTEINS without the OFF-NOTES

Discover our yeast-based protein derived from natural fermentation.
For formulators looking for a **versatile protein** for their applications: a **vegan** protein, complete and **nutritionally** balanced without **unwanted off-flavors**.

100% VEGAN · NATURAL* · NO OFF-NOTES · GLUTEN FREE · GMO FREE · ALLERGEN FREE · HALAL CERTIFIED · KOSHER CERTIFIED

*According to ISO TS 19657:2017

Biospringer by Lesaffre

www.biospringer.com

Plant-based food: taste and feel above all

After several years in the spotlight, **the alternative protein sector** still has some way to go if it is to meet consumer needs: while their **clean label** expectations remain high, their **texture and taste demands are paramount.**

The challenge for manufacturers, therefore, is to **be innovative** in the provision of alternative protein sources without **unwanted taste.**

60% of global households[1] eat meat-free meals at least once a week.

Yeast protein is considered as a good source of protein[2].

No longer **just imitating** meat, fish and dairy alternatives: Plant-based is a **standalone sector.**

Health is top of mind for consumers

+8%
« High/source of protein » health claim[4]

The pandemic has sparked a shift toward **healthier living** with more individual responsibility to live more consciously, with an eye on both **the planet and our wallets**.

According to 2024 consumer trends[3], health and pleasure have become inseparable from each other: every moment counts and enjoying with loved ones is a priority.

When it comes to eating, healthy eating is associated with choosing products that positively **enhance nutrition** and **benefit how the body functions**.

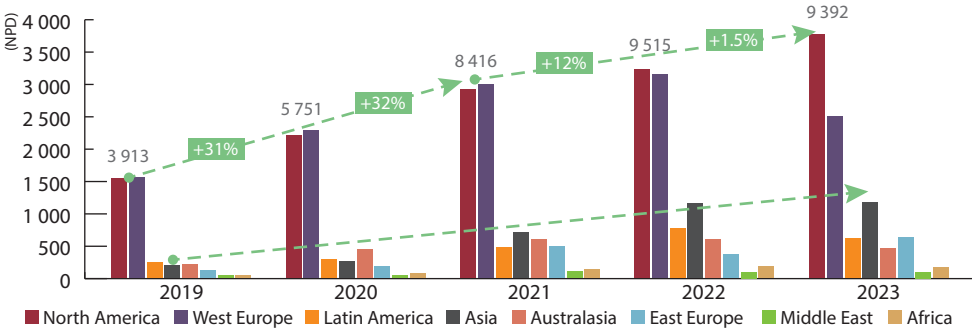
(1) Innova Trends 2023.
(2) Sky Consulting study for Biospringer.
(3) Innova Lifestyle & Attitudes Survey 2023, Innova Health & Nutrition Survey 2023.
(4) Fastest growing active health claims in food and beverage launches (Global, CAGR Q4-2019/Q3-2020 vs Q4-2021/Q3-2022) - Innova market insights.

A look at the future of plant-based market

Meat substitutes and **plant-based milk** are at the forefront of this trend in terms of NPD, while other alternative segments are improving rapidly: **cheese, fish & seafood, bakery and confectionery**.

Slight slowdown[1] in early-adopting and mature markets, while other regions continue to grow.

Even if the expansion is slower than it has been in recent years, that doesn't mean that plant-based products don't have a **promising future.** The consolidated NPD figures[1] show slower growth than in previous years, but the momentum varies from region to region: for example, between 2022 and 2023, **+15% NPD in Western Europe** and **+41% in Eastern Europe**.



European plant-based retail market focus

Sales of plant-based foods in Europe **grow by 6%** in 2022[2] and by 21% from 2020 to 2022 - to reach €5.8 billion. In 2022, sales of plant-based meats have grown to €2 billion - **representing 6% of the total packaged meat market** - while other categories, including plant-based seafood and cheese, have seen **double-digit growth.**

KEY CATEGORIES	
MILK	€ 2.2B + 19%
MEAT	€ 2.08 + 19%

GROWING FAST	
SEAFOOD	€ 43M + 60%
SPREADS	€ 247M + 40%
CHEESE	€ 165M + 40%
MEALS	€ 181M + 20%

WITH POTENTIAL	
YOGHURT	€ 515M + 8%
ICE CREAM	€ 174M + 8%
CREAM	€ 139M + 7%
DESSERT	€ 88M + 6%

(1) Innova Database - Products with a plant-based positioning including sports nutrition, dietary supplements, infant nutrition and pet food.
(2) GFI Europe - Europe plant-based food retail market insights 2020-2022 - NielsenIQ covering 13 European countries.

Springer® Proteissimo™ 102

A nutritionally-balanced complete yeast protein

Yeast is naturally rich in proteins and contains all the **essential amino acids.** Springer® Proteissimo™ 102 is an animal-free protein with a **high digestibility score.** These benefits are concentrated into this unique alternative protein derived from fermentation and can be easily formulated into food products without **undesirable off-notes.**

Highly malleable and easy-to-use building block for great-tasting, high-protein foods

An innovative solution for formulators who are in search of a versatile protein for their cereals and non-animal products.

MEET YOUR CHALLENGES	DISCOVER OUR INGREDIENT'S BENEFITS
Improve the **nutrient** profile of your application	With a high protein content (between 75 and 85% based on average results obtained to date), Springer® Proteissimo™ 102 helps formulators increase protein with a complete amino acid profile.
Use a true vegan protein alternative flexible and easy-to-use	Springer® Proteissimo™ 102 does not bring off notes and has a limited impact on the color of the end products.
Use **environmentally friendly** ingredients	A fermentation-derived ingredient that is seasonally and harvest independent with an upcycle profile and limited carbon footprint.

A complete protein highly digestible

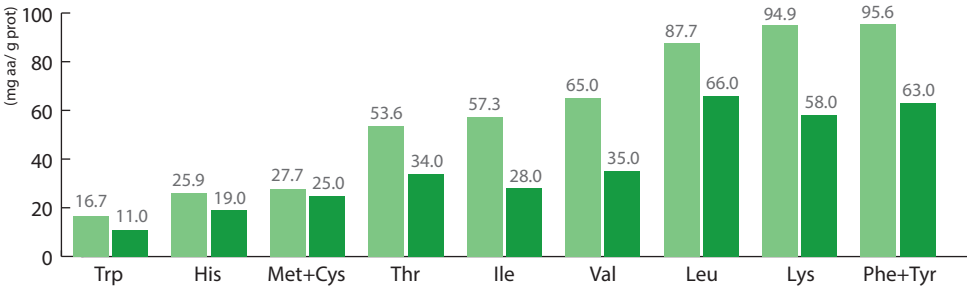
To provide our customers with **robust data**, Springer® Proteissimo™ 102 was compared to other commercial yeast proteins in an external characterization study[1]:

PDCAAS = 1
Highest **protein Digestibility**[2]

PROTEIN	Springer® Proteissimo™ 102	SOY	PEA	WHEAT
PDCAAS = 1[2]	1	0.86-1	0.62-0.93	0.42-0.57

With all essential amino acids

High BCAA[3] and lysine content



> All the amino acids are present in sufficient quantities to reach the body's needs.

(1) External analysis by a European plant protein institute in January 2024.
(2) PDCAAS (Protein Digestibility Corrected Amino Acid Score): assessment method allowing to determine the quality of a protein by taking into account their content in essential amino acids as well as the body's capacity to assimilate them during the digestion process. Yeast: AgroParisTech, 2019, Soy: Godon et al., 1996, Schaafsma, 2000, Rutherfurd et al., 2015. Pea: Godon et al., 1996, Rutherfurd et al., 2015, Mathai et al., 2017, Yang et al., 2012. Wheat: Godon et al., 1996, Schaafsma, 2000.
(3) BCAA: Branched-Chain Amino Acid - These values are given for indicative purposes only.

Your challenges

The evolution of the plant-based segment is already underway to enhance the **sensory experience** of foods, including meat and dairy substitutes.

SUPPORT
your **desire to innovate** with ingredients that are **safe** and **cutting-edge**.

HELP YOU
keep pace with the **ever-changing regulatory** landscape.

OUR MISSION
Delivering **better food experiences** with yeast-based solutions.

RESPOND
to consumer demand for an **innovative, diverse** & **wholesome** plant-based product line.

PROVIDE
sustainable solutions & **services** to better feed the planet together.

Flavor and texture research partner for plant-based foods

Biospringer by Lesaffre is a member of the Plant-Based Food Flavor and Texture Consortium, led by NIZO Food Research[(1)] **involving research institutions and companies from across the food production chain**.

After 2 years of collaborative research, **promising results** hold the potential to enhance the sensory experience and meet the goal of producing **great tasting plant-based foods**.

Scan below to learn more

2024 GLOBAL _ Springer Proteissimo 102 - Nizo consortium blog article HD.

(1) Founded by the Dutch dairy industry in 1948, NIZO is an independent and private contract research organisation, dedicated to improving food and health products.

Springer® Proteissimo™ 102 applies to:

Plant-based

Improve protein levels

Dairy alternative

Meat analogues

Cereal bars

Snacks & Crackers

Breakfast

Help you formulate

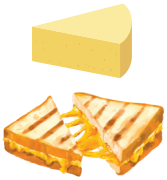
Your **local Culinary Center** is available to help you introduce our yeast protein. We offer **personalized advice** to help you formulate successfully.

Some benefits provided by our yeast protein

Our food engineers have compared yeast protein with **other vegetable proteins** available on the market in several trials for different types of food applications. Here are the advantages* that we can recommend to you when comparing **taste, color and texture**.

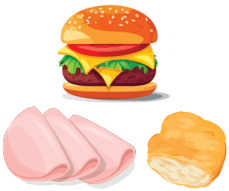
Sauces & dressings

e.g.
Very similar to classic vegan mayonnaise.



Cheese analog

e.g.
May give depth to the mouth* / fruity notes* ; melting properties.



Meat Substitutes

e.g.
Improve nutritional profile without undesirable off-notes*

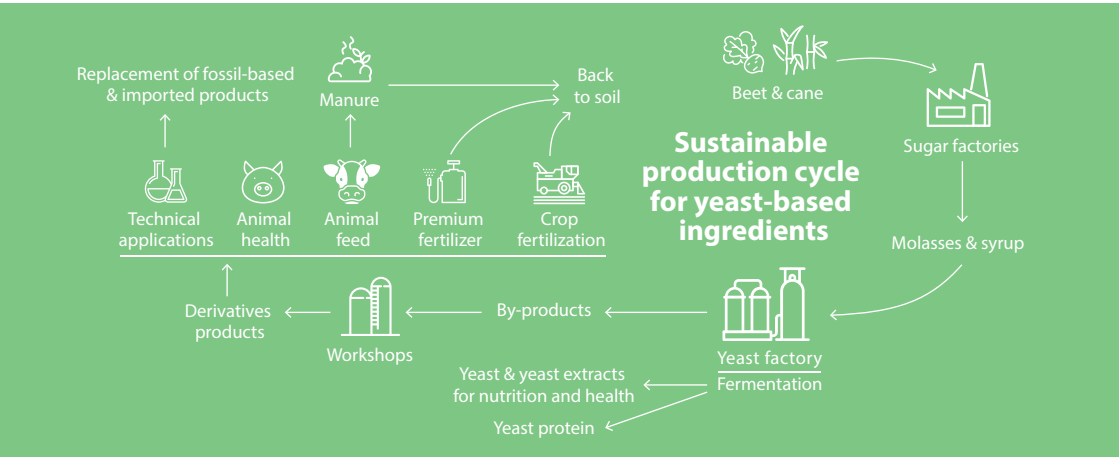
Cereal bars

e.g.
Protein source and
no off-notes.

**These preliminary indications, derived from in-house testing, are intended to help you evaluate our product on application segments. We do not guarantee the actual results on your formulations: technical tests are necessary, and our Culinary Center teams can assist you in this process.*

Give your formulations a sustainable and nutritious option

As an ingredient derived from yeast fermentation, yeast protein follows a **virtuous cycle of production**: it's made from **raw materials** from other industries, and its **own by-products** are used for other activities.



Unlike animal or plant proteins, yeast requires **less space and natural resources** to grow. They also provide a **more stable supply** because they don't depend on **harvests or seasons**.

A comparative life cycle assessment of plant and animal protein

Biospringer by Lesaffre commissioned an external analysis[1] to **compare the environmental impact of yeast protein versus** other plant proteins (pea, wheat and soy) and beef proteins.

Compare to Beef protein production

yeast protein

GHG Emissions kgeqCO2/kg	Water resource depletion	Land use
6 vs 125,9 for beef	95% lower than beef	90% lower than beef

(1) Biospringer by Lesaffre's Life cycle assesment for yeast protein production.

YEAST PROTEIN, a label widely accepted worldwide

Springer® Proteissimo™ 102 is available in many regions where « Yeast protein »[1] is permitted as a label on packaging.

An ingredient that comes with the following guarantees

*According to ISO TS 19657:2017

(1) Please note that regulations may vary from country to country. Check local laws regarding products and users.

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

Sensory & flavor development expertise

The Sensory Lab is the culmination of Biospringer's expertise and experience on **natural yeast ingredients** and serve to support innovation in consumer products that taste great and respond to new trends in the food sector.

A global network of Culinary Centers

Customers can benefit from our global network of five Culinary Center labs, where our food technologists provide them with **tailored advice** and support on how to use our yeast products to improve the taste of food & beverage formulations.

They help local customers **drive innovation** in creating flavor applications with natural yeast ingredients.

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, consumers preferences)

We create **RESPONSIBLE TASTE**

Working together to better nourish and protect the planet

At Biospringer by Lesaffre, we wholly embrace a sustainable approach and partner with our clients to create innovative and natural-origin ingredients from yeast fermentation that make food tastier and healthier, while being respectful of the planet and its people.

Develop healthy products

Respect the environment

Be a responsible employer

Participate in social development

Some highlights:

- We provide a broad range of **healthy, vegan, environmentally friendly products** to enable our customers to create indulgent and flavorful food and beverages.
- Our products and solutions are **GMO-free, clean label, vegan, and Halal and Kosher-certified**.
- We ensure the **quality and safety** of our products by meeting external auditing standards, such as FSSC 22000, ISO 9001 and GFSI certifications.
- Our various production sites are all SMETA certified and are in line with the company's sustainability goals with **very good Ecovadis scores**, from silver to gold.
- Dedicated member of SEDEX.
- We participate in Lesaffre's ECHO global sponsorship program: we encourage our employees to take part in **solidarity actions** aimed at supporting social impact initiatives in the fields of education, food and the environment.

Biospringer by Lesaffre

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.

10 Production plants* | 5 regional sales teams | 6 Culinary Centers | 1 Local Technical Support | 1 Central R&D | 1 Global Sensory Lab

** In Brazil, Biospringer dry blending operation.*

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

Biospringer by Lesaffre

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