

COFALEC POSITION PAPER – March 13th, 2020

The European yeast sector contribution to the “Farm to Fork” strategy

In the wake of the new decade, the European yeast sector is fully engaged to **contribute** to the planet’s environmental health and to provide sustainable and healthy food whilst ensuring economic value in the territories where it is present. By implementing and developing sustainable practices intrinsic to yeast production, COFALEC strongly believes that **the yeast sector is currently a key solution provider for healthy food and feed, sustainable agricultural practices** and will be a catalyst for further growth in these areas. It also constitutes a **strong illustration of how circular economy helps to protect the environment**.

Yeast is a natural living micro-organism, present everywhere in nature. It is a unicellular fungus essential for fermentation and has been part of our food heritage since Antiquity. In order to grow and multiply, yeasts are cultivated on substrates rich in sugar, e.g. molasses and sugar syrups. Yeasts function as sophisticated biological mini-factories capable of producing many essential compounds that have diverse applications. Since the beginning of the 20th century, yeast producers develop and control elaborate bio-industrial fermentation processes in order to **generate high quality products**. Yeasts have long been essential to the making of a variety of **emblematic fermented food and drinks such as bread, wine and beer**. New developments in yeast technology have now identified areas where yeasts can provide progressive solutions to support **human and animal nutrition and health, plant health (biocontrol such as fungicides), new sources of plant-based proteins, new ferments and ingredients, as well as bio-ethanol production**.

Thanks to the circular economy at work in the yeast production, this sector has become an important provider of positive changes in the practices of the agri-food sector supported by the Farm to Fork Strategy. **As part of the fermentation world**, we believe that **the yeast sector should receive public attention to help maximise their contribution to environmental and climate performances** whilst remaining **competitive** in both the European and international markets.

COFALEC members present an extended catalogue of solutions to improve our planet’s health and people’s well-being. The viability of these sustainable solutions is highly dependent on sufficient access to raw material at a competitive price.

A solution-provider towards a sustainable food-chain from Farm to Fork

Yeasts producers have shown a **long commitment to preserving the environment** and sustaining natural habitats. COFALEC members have actively embraced cutting-edge technologies to develop **new methods ensuring water, energy and waste management**.

The yeast sector, a solution provider towards sustainable agriculture

In order to grow, yeasts are cultivated on molasses and sugar syrup co-products from beet and cane sugar production. This allows an optimized use of the co-products from the agricultural beet and sugar industries within a **circular economy dynamic**. Substrates resulting from the yeast production process contain valuable nutrients that would represent noticeable pollution if they were released into the natural environment. In a conscious effort to improve circularity in the agri-food chain, yeast producers transform these substrates containing valuable nutrients into cattle feed and biofertilizers rich in potassium.

The yeast sector supports replacements for carbon-based fuels

Yeasts are capable of transforming plant carbohydrates into biofuel. Under the action of enzymes and yeasts, plant fibers (cellulose, hemicellulose, lignin) and starch can be transformed into bioethanol, a replacement for carbon-based fuel. Yeast technology has now developed further to the point where it enables the production of advanced biofuels produced from agricultural waste, lignin and cellulose contained in the inedible part of certain plants, therefore limiting the impacts on arable lands.

COFALEC supports the development of second-generation and third-generation advanced biofuel and calls for maintaining the limitations on first-generation biofuels in order to prevent food versus fuel competition.

Yeasts help in reducing our dependency on chemical products

Yeasts are used for plant health as **natural bio-fungicide agents**, added to soil or used for foliar application on different crops. The goal is to protect plants by enabling natural **mechanisms and interactions**. These new products improve not only plant nutrition but also plant vigour during the early growth phase. They are **safe** for humans and the environment. Together with the production of **biofertilizers**, **these new bio-fungicides make the yeast sector a promising one** to deliver tools to “*significantly reduce the use and risk of chemical pesticides as well as the use of chemical fertilizers*” and to help protect the soils from pollution.

COFALEC calls for incentive to research and innovation on biocontrol products and for the facilitation of their market access procedure.

Yeasts, a solution against antimicrobial resistance

Antimicrobial resistance is a serious threat to human health, linked to the excessive and inappropriate use of antibiotics, including its use in animal farming, as well as to the discharge of antimicrobials in the environment. **Yeasts probiotics** are used as feed additives to help maintain a balanced gut microbiome in monogastric animals and ruminants. Some of these strains are **safe alternatives to the overuse of antibiotics**. **They significantly help reduce the use of antibiotics in animal breeding.**

The yeast sector, a sustainable source of safe, nutritious and high-quality food

Yeasts, a source of emblematic fermented food and drinks

Yeasts are used by a wide range of food industries to transform simple ingredients into delicious food. In baking it gives us our daily bread. Yeasts ferment and produce carbon dioxide which leavens the dough: **without yeast, no bread!** Yeasts also generate volatile aromatic compounds, contributing to bread’s characteristic aromas. By its alcoholic fermentation action, yeast generates many enjoyable **beers** and produces **world-famous wines** and **distilled spirits**.

Yeasts help in producing nutritious and healthy food

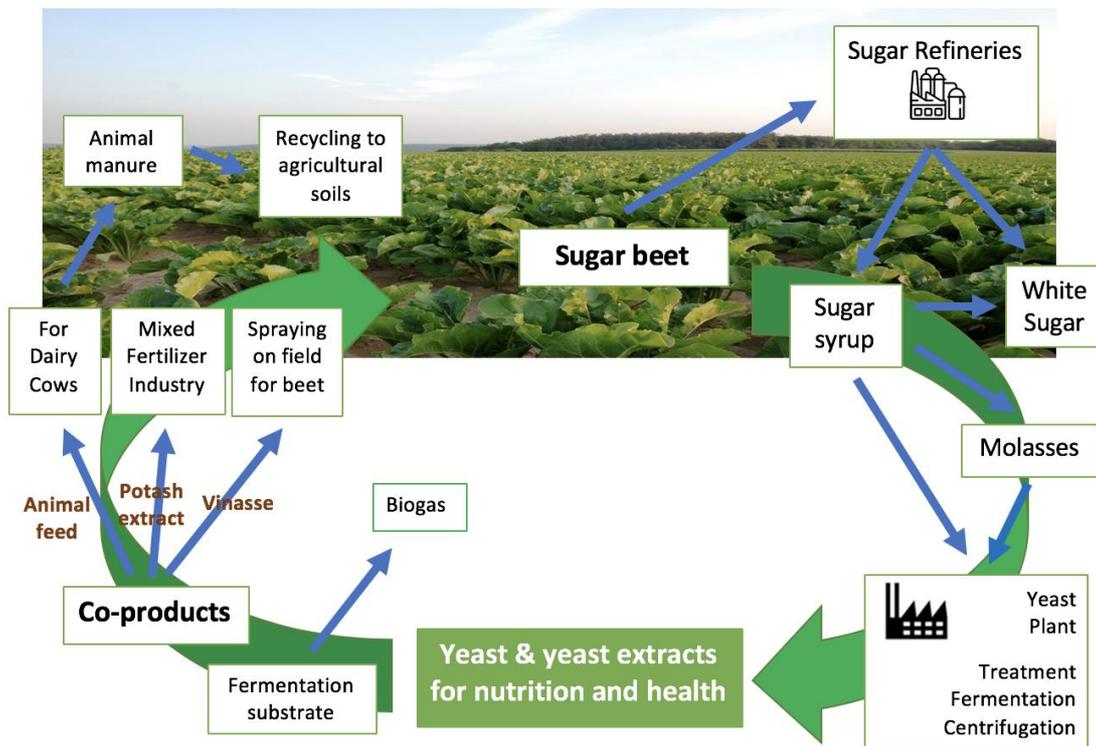
During the fermentation process, yeasts synthesize many B-complex **vitamins** (thiamin, niacin, pantothenic acid, folic acid), important **minerals** as well as **fibers** that can help maintain a balanced intestinal microbiota and **stimulate the immune system**. Yeasts also produce peptides that protect against oxidative stress and regulate the mood. The yeast industry can play a key role in the EU’s aim to **ensure sustainable and healthy food**. Yeasts as **probiotics for humans** are living microorganisms that help in restoring intestinal microbiota and synthesizing high value-added therapeutic bioactive components.

Yeasts as a source of new plant-based protein and ferments for the future

Yeasts can be used alternatively as **ferments for the food industry**, as **nutritional food ingredients** or as **nutraceutical food to support health**. Nutritional yeast is an excellent ally in maintaining our well-being thanks to the many nutrients it contains, such as protein, essential amino acids, fiber, vitamins and minerals in organic form. Nutritional yeasts incorporated into diets offer **alternatives to protein-rich meat and dairy products**, in line with the European Green Deal objective of “promoting the production and use of new sources of protein that can relieve pressure on agricultural lands”. Fermentation is also a solution for the development of innovative plant-based products which can replace traditional dairy and meat-based products.

Present at many stages of the European food chain from Farm to Fork, the European yeast industry has a key role to play in the future EU bioeconomy and carbon neutrality strategy.

Yeast production : a circular economy dynamic



COFALEC

COFALEC is a European confederation of yeast producers.

It was founded in **1959** and is now composed of **33 factories** scattered in **22 European countries**.

The European yeast sector is the **biggest player in the world**.

COFALEC members work **as close as possible** to their clients, to secure a **local sourcing**.

More than one million ton of yeast is produced **each year** by COFALEC firms.

30 % of the **production** is **exported** outside Europe.

