



STARCHEUROPE

THE EU STARCH INDUSTRY

Civil Dialogue Group on starch

20 October 2022

THE 5 KEY DRIVERS OF OUR INDUSTRY

INNOVATION

01

RURAL STRENGTH

02

PLANT-BASED

03

BIOECONOMY

04

SUSTAINABILITY

05



At the heart of the industry, is a constant drive to innovate



By using EU grown crops, and by locating most of our plants in rural, we provide over 15.000 direct jobs in rural communities, and provide an outlet for roughly 60.000 farmers across Europe



By producing over 600 ingredients, we provide our partners with plant-based solutions for a wide array of applications, from food to industrial



Because the Starch industry has been a pioneer in the bioeconomy for decades, supplying plant-based products to complement or replace fossil-fuel based products for many outlets



As a zero-waste industry, valorising every part of our raw materials to deliver to all four outlets of the bioeconomy, that is food, feed, industrial and energy customers

INGREDIENTS FOR FOOD & DRINK

PLANT-BASED PROTEINS

- » When extracting starch from maize, wheat, potatoes, peas, barley or rice, the remaining plant-based matter is a combination of protein and fibres.
- » With the rise in plant-based diets vegetable proteins are increasingly used as a complement, or an alternative, animal proteins.

EX.: VEGETARIAN CURRY

INGREDIENTS

- » **WHEAT PROTEINS**
- » Chick Peas (whole and flour)
- » Water
- » Sunflower Oil
- » **WHEAT FIBRES**
- » Salt
- » Natural Flavourings



BENEFITS OF USE

- » Helps the diversification of protein sources
- » Vegan /Vegetarian Friendly
- » Clean Label

RECIPE EXAMPLE PROVIDED BY USIPA



INGREDIENTS FOR FOOD & DRINK

FIBRES

- » The fibres which remain when extracting starch from maize, wheat, potatoes, peas, barley or rice, have many uses
- » Provide solutions in product reformulation
- » Two main types: soluble and insoluble:
 - » Soluble fibres, including resistant starches slow the digestion and absorption of dietary carbohydrates which can help prevent the rapid rise of blood glucose after eating. Because of the way some soluble fibres are fermented in the body, they can help you feel full.
 - » Insoluble fibres, instead, do not dissolve in water but pass through the digestive system relatively intact.

EX.: HOT CHOCOLATE

INGREDIENTS

- » SOLUBLE MAIZE OR WHEAT FIBRES
- » Sugar
- » Cocoa



BENEFITS OF USE

- » Allows for ≤25% Sugar Reduction
- » Highly digestible
- » Preserves taste and texture
- » Nutritional profile Rich in Fibres
- » Helps lower blood cholesterol and glucose levels

RECIPE EXAMPLE PROVIDED BY USIPA



Proteins as part of the European starch industry's value chain

Diversity of plant-based protein product categories

Out of about 5 million tonnes of proteins and fibres produced by the European Starch industry, 1.1 million tonnes are classified as very high protein content products (containing above 60% of protein).

With the rise in more vegetable-based diets, some of the proteins are used increasingly in food, as an alternative to animal proteins. They are a very useful and flexible alternative for consumers following a vegetarian or vegan diet, who need to find a varied source of protein.



VERY HIGH PROTEIN CONTENT (60% - 90%)

1.1M TONNES



MEDIUM PROTEIN CONTENT (15% - 30%)

4.2M TONNES



MAIZE GLUTEN MEAL



(VITAL) WHEAT GLUTEN



PEA PROTEINS



POTATO PROTEINS



RICE PROTEINS

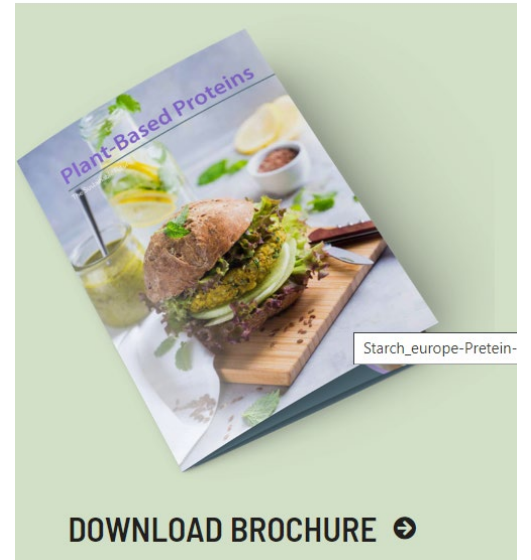


Source: 2020 industry data

Proteins as part of the European starch industry's value chain

Innovation in today's specialised feed and food applications

- » Every year, the EU starch industry invests about 80 million € in research and development across the board. Through targeted innovation, the EU starch industry has developed a broad portfolio of valuable plant-based protein ingredients with high-protein content.
- » These plant-based protein ingredients provide both functionality and nutritional qualities in a wide array of food and specialised feed applications.
 - Medium proteins (15%-30%) to feed outlet
 - Super proteins (60%-90%) to food and feed outlets
- » Innovative applications, e.g.:
 - Food: Bakery
 - Specialised nutrition: sports, elderly, meat alternatives, hospital special diets
 - Specialised feed: aquaculture, poultry, pet food



Proteins as part of the European starch industry's value chain

Increasing EU consumer demand

- Consumers trends are driving the demand for plant protein products
 - As the Agrosynergie study demonstrated, the demand for plant-based proteins is driven by the increasing numbers of vegan, vegetarian & flexitarian consumers in Europe.
 - But also by a need for these consumers to have access to more convenient plant-protein based food products that are easier and quicker for them to prepare at home.
- EU seeks new sources of nutritious protein for both feed and food uses for nutritional, agronomical and climatic reasons.
- EU plant protein plan identified as “particularly promising the “market for meat and dairy alternatives, with annual growth rates of 14% and 11% respectively”*.
- EU initiatives such as Food2030 and the revision of the Promotion Regulation can help make the EU a leader in human nutrition
- Conclusion of Helsinki seminar : communication towards consumers of paramount importance

https://ec.europa.eu/agriculture/cereals/development-of-plant-proteins-in-europe_en - page 60

Proteins as part of the European starch industry's value chain

Innovation in today's specialised feed and food applications

» In the Member States:

- Growing trend to encourage consumption of plant-based foods as part of a healthy, balanced diet thanks to their nutritional benefits and low environmental footprint.

» Industry Innovation:

- A study commissioned by EUVEPRO* shows a significant increase in New Product Launches (NPLs) containing plant proteins in a 10-year period (2007-2017):
 - The average annual growth in vegetable protein NPLs is 13.5%.
 - The market is increasingly attracting diversified sources of plant proteins such as rice protein and potato protein, in addition to the more traditional proteins: wheat, soy and pea.
 - Top countries with the greatest number of product launches containing vegetable proteins: The UK, Netherlands, Germany and France
 - Fastest growth in new product launches on the EU market: Denmark, Ireland and Croatia.

* [https://euvepro.eu/library/files/INNOVA_2018_report_summary - THE USE OF PLANT-BASED PROTEINS IN FOOD AND BEVERAGES IN THE EU.pdf](https://euvepro.eu/library/files/INNOVA_2018_report_summary_-_THE_USE_OF_PLANT-BASED_PROTEINS_IN_FOOD_AND_BEVERAGES_IN_THE_EU.pdf)

The three axes of Starch Europe's recommendations

Axis 1: Production and processing in the EU plant protein supply chain

- » To date, the [EU Plant Protein Plan](#) and most Member States' plans focus on the growing of the protein crops themselves and overlook the processing steps and circular economy principles of starch biorefineries.
- » EU Council note* *Enhancing the potential of plant-based proteins in Europe in line with the objectives set out in the European Green Deal* makes clear references to “developing and expanding regional value chains and regional processing capacities to shorten transportation between the place of production and the place of consumption”
- » In the forthcoming EU strategy, we therefore call on the Commission to take a farm-to-fork approach and integrate the value of the first processing of cereals and plant protein crops into plant-based protein food and drink products.
- » This will help address the consumers' request for local sustainable products as well as more convenience & diversified plant-based protein products.

* Note from the Austrian delegation, supported by Bulgaria, Croatia, Cyprus, Estonia, Finland, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Romania, Slovakia, Slovenia and Spain

The three axes of Starch Europe's recommendations

Axis 2: Research and Innovation

- » Long-term support for investment and innovation in the protein value chain to better align products with consumer expectations
- » Promote dedicated plant-based food research at all stages of the supply chain under the upcoming 2023-2024 Work Programme of Horizon 2030
 - e.g. nutritional and organoleptic properties of plant-based foods and ingredients
- » Across-the-board research and innovation programmes aiming at:
 - improving seeds to achieve better and more stable yields and greater disease resistance in protein crops
 - optimising first transformation processes of agricultural raw materials to produce ingredients for food, feed and industrial applications
 - improving the know-how on the functionality, quality and consistency of plant-based protein products in food applications
 - assessing the nutritional quality and impact of new protein sources alone or in combination with animal proteins.

The three axes of Starch Europe's recommendations

Axis 3: Promotion and awareness-raising of EU plant protein food and drinks products

- Promote an increase in the consumption of plant proteins in the human diet in order to meet the inevitable increased demand for proteins from the growing global population
- Review [Regulation 1144/2014](#) to allow promotional measures for plant-protein food and drink products
- Continue the dialogue kicked-off through an active participation to Civil Dialogue Group meetings on Promotion and Quality and the Chafea Info Days
- Monitoring of the EU Commission's forthcoming legislative proposal to the EU Parliament and Council
- Indicative timeline?

MORE INFORMATION

WHERE TO FIND US ONLINE



AVENUE DES ARTS 43 | B-1040 BRUSSELS | BELGIUM



+32 2 289 67 60



WWW.STARCH.EU | WWW.STARCHINFOOD.EU



Follow **@StarchEurope** on twitter to learn more