

PROTEIN2FOOD – A new menu

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PROTEIN
2FOOD

PIONEERING
CROPS
FOR FUTURE
GENERATIONS



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 635727.

Food Prototypes



Meat substitutes

- Burgers, Sausage
- Chunks, Shreds
- Paté



Dairy substitutes

- Milk, Yoghurt
- Infant formula
- Smoothies, Ice cream



Baked and Staple foods

- Bread, Pasta
- Breakfast cereals
- Cookies, Müsli bars

CRITERIA

- ✓ High in protein (min. 20%)
- ✓ Competitive to commercial products
- ✓ Improved nutritional profile

PARAMETERS

- Optimal techno-functional properties
- Sensory properties
- Optical appearance



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Development process



Screening of
plant protein
ingredients



Selection and
combination of
ingredients



Recipe
optimization at
small scale



Upscaling and
characterisation

Physicochemical and structural properties

- Nutritional composition
- Protein profile (electrophoresis)
- Microstructure
- Protein secondary structure
- Particle size distribution
- Surface properties (Hydrophobicity, SH groups, charge)

Functional properties

- Texture
- Solubility – effect of pH
- Water/fat holding capacity
- Foaming
- Emulsifying
- Gelation



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Meat substitutes & fine cuisine



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Dairy substitutes & Baked goods



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PROTEIN
2FOOD

From ingredient to food product

PROTEIN2FOOD

Plant-protein foods and beverages validated at lab/pilot scale

INDUSTRY

New market opportunities for food producers

SOCIETY

More nutritious and sustainable food options for consumers



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