



Innovative Food Product Development from Underutilized Crops and Crop Wild Relatives for Sustainable and Healthy Diets

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INTRODUCTION

Crop Wild Relatives (CWRs) & Underutilized Crops (UCs)



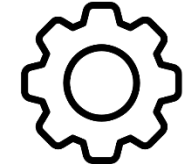
CWRs

Wild species related to cultivated crops and valuable sources of genetic diversity.



UCs

Nutritious and resilient crops that remain neglected or underused.



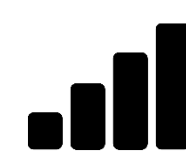
PROBLEM

Limited cultivation and consumption



OUR APPROACH

Appealing, nutritious food products



EXPECTED IMPACT

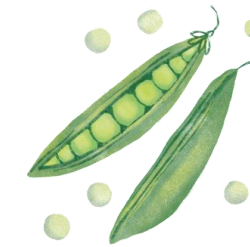
Consumer demand and future cultivation

OBJECTIVE:

Develop and evaluate proof-of-concept foods based on CWRs and UCs for technological feasibility, nutritional value and consumer appeal

METHODS

1 Crop selection



PEA



BARLEY



WHEAT



LETTUCE



RICE



LENTIL



CHICKPEA

2



Ingredient preparation

3



Food formulation

4



Prototype development

5



Technological and sensory evaluation

RESULTS AND DISCUSSION

CWRs



Couscous



Fruit leather



Mojito



Pesto



Smoothie



Roasted tea



Muffins



Roasted tea



Pasta



VERSATILITY

Suitable for multiple food-products categories



NUTRITIONAL VALUE

Potential for higher fibre and protein content



CONSUMER APPEAL

Promising consuming acceptance, particularly for barley muffins, roasted teas, pea couscous, fruit leather and lettuce pesto

UCs



Best texture



Arancini formulations with:

CONCLUSIONS

UCs and CWRs can be transformed into diverse, nutritious and appealing food prototypes. Their valorization may stimulate consumer interest and support future cultivation and inclusion in sustainable diets.

FUNDING



Funded by
the European Union

NUSTALGIC is part of the PRIMA Programme, supported by the European Union under Grant Agreement No. 2411.



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the European Union



COUSIN is funded by Horizon Europe under Grant Agreement No. 101135314, with additional support from SERI (contract 22.0412) and UKRI.