

From Ingredient Characterization to Clinical Evaluation: Developing Protein- and Fiber-Enriched Food Products for a 65+ Population (Diet65+ Project)

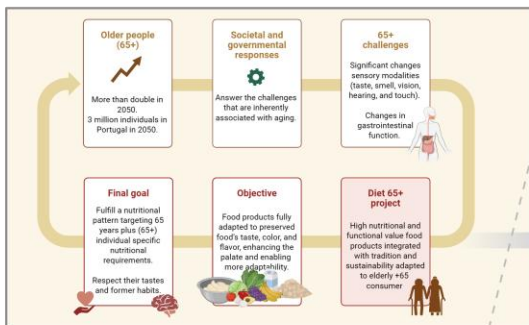
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THE DIET65+ PROJECT

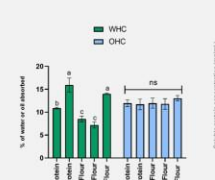


INGREDIENT SELECTION

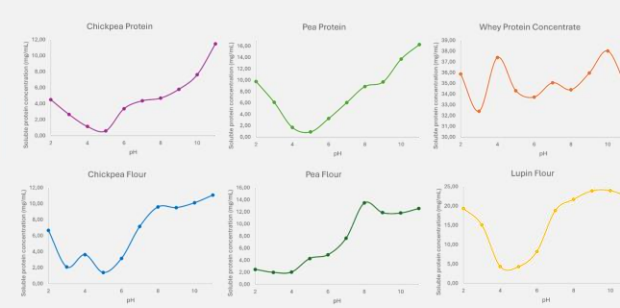
≥ 30 Commercially Available Ingredients



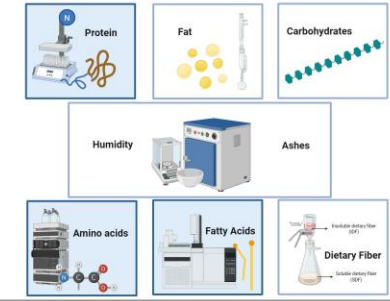
Oil and Water Holding Capacity



pH solubility tests

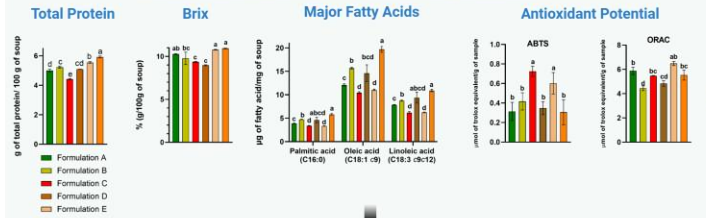


CHEMICAL AND NUTRITIONAL CHARACTERIZATION

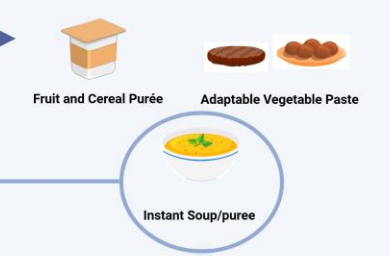


SOUP CHARACTERIZATION

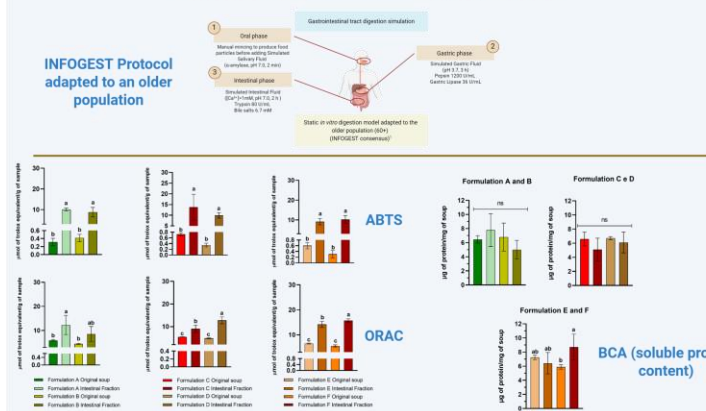
Instant Soup Paste (individual portion)	Legume 1 (A) + Legume 2.1		Legume 1 (A) + Legume 2.2		Legume 1 (A) + Legume 2.3		Nutritional Claims
	Formulation A	Formulation B	Formulation C	Formulation D	Formulation E	Formulation F	
Legume A (g)	23.1	23.07	26.36	21.15	21.14	21.14	Protein
Legume B (g)	6.02	4.80	13.64	5.32	21.82	5.31	High in Protein
Vegetable protein concentrate (g)	0	1.62	0	1.56	0	1.56	All Formulations
Other vegetables (vegetables) (g)	27.75	38.22	24.24	26.96	22.47	26.76	Fiber
Water (g)	88.11	88.47	88.36	88.15	87.74	88.11	High in Fiber
Protein (g)	10.26	10.55	14.55	10.27	10.12	10.10	Source of Fiber
Fiber (g)	14.38	12.47	22.55	10.27	21.89	10.10	Protein & Fiber (A, B, D, E, F)
Fat (g)	2.47	1.50	4.20	0	4.08	2.54	



PRODUCT DEVELOPMENT



GASTROINTESTINAL TRACT (GIT) IMPACT



FOCUS GROUP
2 sensory analysis trials followed by a Focus Group
10 men (68,00±2,71 years)
9 women (64,33±6,65 years)
Poster "Sensory Evaluation, Acceptability, and Consumer Insights of Protein- and Fiber-Enriched Foods Tailored for Older Adults: the Diet65+ Project"



- The GIT treatment enhanced the antioxidant activity of all tested soup formulations. This increased potential may be attributed to the digestive effects of gastrointestinal enzymes on proteins, leading to the release of smaller peptides with higher antioxidant capacity.
- Although an increase in soluble protein levels was expected following GIT digestion, this effect was only observed in Formulation F. In most other formulations, GIT had no significant impact on soluble protein concentration.