



## OATPRO

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There is a global need to change consumer habits for increased plant protein intake. Availability of sustainable plant protein sources could be increased by finding novel protein sources or by efficient valorisation of the existing ones. Side streams from cereal processing are under-exploited or even wasted despite their high content of health promoting valuable components such as dietary fibre, protein and bioactive compounds.

Oats are an important crop with a superior amino acid composition as compared to other cereal proteins. Oats are mainly consumed in the form of flakes and porridge or used as a source of soluble dietary fibre ( $\beta$ -glucan). In production of oat bran ingredients rich in  $\beta$ -glucan, a protein enriched fraction can also be recovered, but its use in food applications has been very little studied.

Development of new plant protein enriched foods requests for understanding of consumers' willingness to accept such products. Consumer acceptance of any food product is a complex phenomenon, and can be expected to be even more complex in the case of highly new product concepts. The sensory aspect is especially important, as protein ingredients often have disadvantageous off-flavours, bitter or astringent taste. Thus, turning promising technology into successful oat-protein food applications is dependent on integrating the consumer view into the product development process from the beginning till the end.

The aim of the project is to use oat protein side stream from  $\beta$ -glucan processing as an ingredient in protein-enriched cereal foods or for replacement of animal based proteins, and develop food applications where oat protein would best be accepted by consumers. Re-thinking the current food ingredient processing chain and efficient valorisation of oat as a protein ingredient will assist in increasing protein self-sufficiency in Europe, and benefit environment by providing alternatives for animal based protein ingredients.