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How to better exploit grains - the HEALTHGRAIN approach

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There is expanding epidemiological evidence linking high intake of whole grain foods and cereal fibre to reduced risk of chronic diseases, especially of type 2 diabetes and cardiovascular disease. Dietary recommendations and health claims motivate to eat more whole grain foods and foods rich in cereal fibre. However, the current grain processing has largely been optimised to deliver products made of refined grains. There is lack of foods containing also outer bran layers of the grain, which would also meet consumers' multiple demands of appealing sensory quality and ease of use. Thus new technological solutions are needed to deliver nutritious grain foods matching the expectations of modern consumers.

The five-year European integrated project HEALTHGRAIN (www.Healthgrain.org) started in 2005 with the aim to improve well-being and reduce the prevalence of the insulin resistance syndrome by increasing the intake of protective compounds of grains, such as dietary fibre, oligosaccharides and phytochemicals. The aim is to develop new cereal-derived ingredients and tailored ingredients with improved health benefits. Consumer expectations have been studied in four European countries in order to tailor healthy cereal foods in a consumer- oriented way. The research program concentrates on the bread grains wheat and rye, and ranges from use of plant biotechnology to assist in breeding programs to development of bioprocessing, fractionation and formulation technologies. It also contains in vitro, animal and human trials to produce new knowledge regarding mechanisms behind improved insulin economy and satiety of diets rich in specific cereal foods. The HEALTHGRAIN project also has an active dissemination program for various stakeholders, including networks of industrial companies, nutrition experts and consumer dissemination organisations.

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