

## BIOACTIVE COMPONENTS OF CEREALS AND THEIR POSSIBLE HEALTH BENEFITS - A REVIEW

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*invited lecture*

In western industrialized countries, as well as in their neighbouring countries, the food situation has been assessed very favourably. Therefore, there are additional requirements for food. The aim of these requirements has been to maintain health and to reduce risks of diseases among the population. Therefore, bioactive ingredients of food are of particular interest. Bioactive substances are substances in food without nutritional value; however, a health promoting effect has been attributed to them. These are mainly secondary plant metabolites, but also dietary fibres, as well as fermentation ingredients in food. While there have been manifold findings on dietary fibre, there is still a need for clarification regarding the occurrence and the actions of secondary plant metabolites and fermentational produced bioactive substances. The protective effects of more than 20 000 chemically different compounds of the secondary plant materials provide an especially wide field of activity for science and research.

Furthermore, the influences of technological processes, for example the fermentation of a sponge or the baking process of bakery goods, on the preservation and the formation of bioactive components in food have not been sufficiently investigated yet. In the past, both the improvement or the attainment of processibility of food components and the taste improvement or the extension of microbial stability of final products have been focused on. Nowadays, substances with additional health promoting effects for humans and animals should be generated by biotechnological processes.

The presentation provides an insight into the current state of knowledge about bioactive ingredients of selected foods, as well as on the evaluation of health claims based on European food law. Can bioactive ingredients of cereal-based foods fulfil the expectations we associate with it?

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