

32. Detmolder Studientage für Lehrerinnen und Lehrer an berufsbildenden Schulen  
19. – 21. Februar 2018, Detmold

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

**Günter Unbehend<sup>1</sup>, Jürgen Zapp<sup>2</sup>**

<sup>1</sup>*Max Rubner-Institute, Department of Safety and Quality of Cereals,  
Schützenberg 12, 32756 Detmold, Germany*

<sup>2</sup>*Hochschule Ostwestfalen-Lippe, University of Applied Sciences,  
Department 4 – Life Science Technologies  
Liebigstraße 87, 32657 Lemgo, Germany*

corresponding author: guenter.unbehend@mri.bund.de

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 fermentation 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.

The aim of this presentation is to review the current state of knowledge about bioactive ingredients in cereals and related food products. Potential health and nutrition claims are critically evaluated in the context of European food law regulations. Examples of legal health claims related to cereal products are discussed in the light of actual decisions of the European Court of Justice. Furthermore, the limitations of the use of nutrition or health claims for promotional purposes are reconsidered.

**Keywords:** bioactive components, cereal products, health claims, additional health promoting effect