

Plant-based Food Components and Food Safety (Practice and Results)

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Introduction

The scope of plant-based components of food products is very large, ranging from crop production to horticultural production including components collected from organic production and natural surroundings. The different methods of processing them is a crucial part of this process aside from raw consumption. The way of processing enables products to reach a wide range (in time and space) of consumers. The concept “from farm to table” has become wide-spread for this reason. Crop- and horticultural production as an increasingly industrialized production method uses several materials that can pose a potential chemical, biological and radiological risk to consumers’ health.

Knowing the exact origin of different food components has an increasing importance today due to the fact that production, logistics and consumption are getting more concentrated. In order to address this, quality assurance procedures have been developed by implementing various corporate management systems. It was enforced especially by large retail chains and it was them, that required certification. Due to this phenomenon food-safety has become highly improved, but in terms of mass production (e.g.: wheat and corn) its implementation still faces problems. The application of ‘block-chain’ the most modern and cutting-edge system today has been introduced to solve these problems.

In my presentation, I review the Hungarian and international food safety scandals, the lessons we can learn from them and the possibilities to avoid such scandals in the future. I particularly emphasize the importance of crop production and storage technologies in this process which includes both the detection of chemical and microbiological hazards and the prevention of their negative effects (such as the appearance of M1 aflatoxin in milk, that is of plant origin).

