JOURNAL OF FOOD QUALITY & HAZARDS CONTROL
SHAHID SADOUGHI UNIVERSITY OF MEDICAL SCIENCES & HEALTH SERVICES

Journal of Food Quality and Hazards Control 2 (2015) 111

Editorial

Genetically Modified Foods Against Hunger in Developing Countries

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Based on population growth especially in developing countries, it is necessary to focus on increasing food production by 70% by the year 2050 (FAO, 2009). One of the proposed resolving ways would be applying biotechnology for producing genetically modified (GM) foods mostly harboring foreign DNA, followed by expressed protein involved in insect resistance and herbicide tolerance. But, there are very controversy theories for being safety of these kinds of foods. After this, many organizations reported various strategies for assessments of these products (Codex Alimentarius Commission, 2007; EC, 2004; EFSA, 2006; FAO/WHO, 2000) and indicated the tests for assessing the safety of this biotechnological food. Therefore, investigation on GM crops is critical to evaluate toxicity and allergenicity.

Many studies have been carried out about allergenicity of proteins expressed in GM crops (Cao et al., 2012; Thomas et al., 2004), but there are no reports of allergic effects, so far because of their rapidly degradation after exposure to digestive enzymes. However, there are many questions and further studies can be considered. In addition, toxicity is discussed in GM foods. So far, no toxicity effects have been reported after consumption of GM foods (Juberg et al., 2009; Stagg et al., 2012).

Finally, for believing the safety in GM foods in all countries and cultures seems necessary more and more investigations. The modern biotechnology tools may solve the hunger problems in countries especially the ones with high population growth and low incoming especially developing countries.

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