

Intended and unpredictable effects of transgenesis of second-generation genetically modified plants

Summary

DNA recombination techniques enable the introduction of genes encoding proteins responsible for the production of substances which increase the nutritional and dietary value of edible plant parts, and make it possible to obtain second-generation genetically modified plants (GM2). However, plant transformation carries a potential risk of unintended and unexpected effects, the identification of which requires numerous nutritional experiments. In safety tests on a few GM plants used for animal feed and human consumption, conducted at the Department of Animal Nutrition and Biotechnology of the Faculty of Animal Science, both desirable and unfavourable effects of the experimental diets were noted. No real threat to consumer health was found and the plants were determined to be safe. Nutritional research continues on GM2 containing potentially health-promoting substances.

KEY WORDS: GMO, transgenic plant, nutrition, food and fodder