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The nutritional value of the genetically modified maize

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GM maize with acquired resistance to the European corn borer and other Lepidopteran pests - MON 810; GM maize with resistance to *Lepidoptera* and corn rootworm larvae and with tolerance to glyphosate: MON 88017×MON 89034; GM maize with resistance to *Lepidoptera* and tolerance to glyphosate: MON 89034×NK 603 were compared with their isogenic lines. All tested samples of maize were grown in equal climatic and soil aggregate conditions. Nutritional value of GM maize was tested on model animal rabbits, which were fed 12% share of corn in feed mixture during full terms of fattening. No influence of GM maize on growth, feed conversion, parameters of fermentation process in the cecum of rabbits and on animal health was determined. In meat of rabbits, that are handed feed mixtures with contents of GM maize, determined equivalent values of pH, contents of protein, fat, energetic values, essential amino acid and the fatty acid profile as in meat rabbits that were served feed mixture with isogenic maize lines. Maize grain is used in nutrition of ruminants for the high content of starch, but also for important contents of crude protein. For GM maize MON 89034×NK 603, isogenic maize and 3 references hybrids, effective degradability dry matter, crude protein, organic matter and NDF were determined. Obtained results indicate there is no difference between GM and isogenic maize.

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Biography

Maria Chrenkova is a Scientist with 38 years of experience in ruminant nutrition and feeds evaluation. Her research work is focused on feed quality, parameters of ruminal degradability, intestinal digestibility and biological value of proteins using model animals (rats and rabbits). She also studies the use of genetically modified and non-traditional feeds in animal nutrition and their effects on animal health and quality of animal products. She is involved in several national and international projects related to feed quality, animal nutrition, metabolism and production.

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