Perception of possible transformation in samples of corn seed and feed for livestock and poultry based on 35S promoter and nos terminator

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ABSTRACT

The increased areas under cultivation of genetically modified plants have proponents and opponents in the international arena. According to potentially usefulness and harms of these products, organizations have established regulatory rules to safety use of them for feeding humans and livestock. Hence, genetically modified products have been distinguished from non-GMOS through labeling. Two more applicable generic elements in plant transformations, 35S promoter and nos terminator, were considered as targeted elements for detection of GMO products in this research. Three maize grain cultivars, one soybean meal sample, and three bird’s feed samples were used as experimental materials. The two targeted genetic elements were detected in all samples. The Invertase and Lectin sequences as endogenes were used for determining the presence of corn and soybean genomes as criteria. The two endogenes were identified in all those samples, which have the related genomes. In accordance to accepting of Cartagena Protocol in Iran, it’s been haped that labeling rules of GMO products follow more seriously.

Keywords: Screening, genetically modified crop products, corn seed 35S promoter, nos terminator.

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