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Evaluation of anion and cation contents of a genetically modified cotton expressing *chitinase* and *Bt* genes

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A B S T R A C T

One of the main goals of modern biotechnology is the production of higher yielding quality varieties to help attaining food security. In spite of numerous benefits, genetically modified crop plants have raised concerns for some of the consumers. Although some of these concerns have no scientific basis, safety evaluations of transgenic plants could reduce them. One of the studies to this end is the metabolic analysis of transgenic plants. Anions and cations (Na, K, Mg, acetat, chloride, nitrate, phosphate, sulfate, succinate and oxalate) of transgenic plants and their non transgenic counterparts were measured using Ion chromatography. After planting, sampling and extraction, Anions and cations of transgenic cotton (*chitinase* and *Bt* cotton) were measured. Significant differences in the amount of oxalate, sodium and ammonium in *cry1Ab expressing* cotton lines and oxalate and sodium in *chitinase* over expressing lines were observed.

Key Words

Anions, Cations, Safety assessment, Transgenic Cotton

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