This is a provisional English translation of an excerpt from the original full report.

Safety Assessment Report

Maize resistant to coleopteran insect pests and tolerant to herbicide glufosinate (DP23211)

(Genetically Modified Food)

Food Safety Commission of Japan (FSCJ)
February 2023

ABSTRACT

The FSCJ conducted a safety assessment of "Maize resistant to coleopteran insect pests and tolerant to herbicide glufosinate (DP23211)."

Maize line DP23211 was developed though introducing the *DvSSJ1* gene fragments derived from *Diabrotica virgifera virgifera*, the *ipd072Aa* transgene derived from *Pseudomonas chlororaphis*, and the *pat* transgene derived from *Streptomyces viridochromogenes* into the dent PHR03 line of maize (*Zea mays* ssp.*mays* (L.) Iltis) as a host. The expression of the *DvSSJ1*dsRNA and IPD072Aa proteins confers resistance to coleopteran insect pests, and the expression of the PAT protein confers tolerance to the herbicide glufosinate.

Referring to the "Standards for the Safety Assessment of Genetically Modified Foods (Seed Plants)[1]", evaluations were conducted regarding the safety of the donor of the inserted gene, toxicity and allergenicity of the protein expressed by the inserted gene, the base sequence analysis of the inserted gene, the stability of the inserted gene in successive generations, the effects on the metabolic pathway of plants, and the comparative results of nutritional and toxic components in plants, all of which indicated no additional factors that could impair safety in this line compared with non-recombinant maize.

Therefore, it has been concluded that "Maize resistant to coleopteran insect pests and tolerant to herbicide glufosinate (DP23211)" is unlikely to pose concerns relevant to human health.

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[1] Decision of FSCJ dated January 29, 2004