

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

Safety Assessment Report

Maize enhanced grain yield and tolerant to herbicide glufosinate (DP202216)

(Genetically Modified Food)

Food Safety Commission of Japan (FSCJ)

February 2022

ABSTRACT

The FSCJ conducted a safety assessment of “Maize enhanced grain yield and tolerant to herbicide glufosinate (DP202216)”, based on the documents submitted by the applicant.

This line was generated through the introduction of the *zmm 28* gene from maize (*Zea mays*) and the *pat* gene from *Streptomyces viridochromogenes*. The insertions of these genes result in expressions of ZMM28 protein and PAT protein intended to enhance grain yield and be tolerant to glufosinate.

Referring to “Standards for the Safety Assessment of Genetically Modified Foods (Seed Plants)”¹, the FSCJ assessed the following:

- i. the safety of the donor of the inserted gene;
- ii. the toxicity and allergenicity of the protein expressed from inserted gene;
- iii. the base sequence analysis of the inserted gene, etc.;
- iv. the stability of the inserted gene in successive generations;
- v. the effect on the metabolic pathways in plants; and
- vi. the results of comparison of nutritional and toxic ingredients.

The FSCJ confirmed that any new finding to cause the adverse effects was not observed, compared with conventional maize.

Accordingly, the FSCJ concluded that no concern relevant to human health is raised on the DP202216 line, a maize enhanced grain yield and tolerant glufosinate.

¹ Decision of the FSCJ dated January 29, 2004