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

Safety Assessment Report

A soybean SYHT0H2 tolerant to herbicide against *p*-hydroxyphenylpyruvate dioxygenase and to glufosinate

(Genetically modified food)

Food Safety Commission of Japan (FSCJ)
March 2016

ABSTRACT

FSCJ conducted a risk assessment of a soybean SYHT0H2 tolerant to herbicide against p-hydroxyphenylpyruvate dioxygenase and to glufosinate, based on the documents submitted by the applicant.

This line was generated through the introduction of modified p-hydroxyphenylpyruvate dioxygenase gene (*avhppd-03* gene) derived from oat (*Avena sativa* L.) and two types of modified phosphinothricin acetyltransferaze genes (modified *pat* genes) derived from *Streptomyces viridochromogenes* Tü 494. These gene insertions result in the expression of modified *p*-hydroxyphenylpyruvate dioxygenase (AvHPPE-03 protein) and phosphinothricin acetyltransferases (PAT proteins), and thus soybean line SYHT0H2 becomes tolerant of HPDD-inhibiting herbicides and glufosinate herbicides.

The documents, evaluated based on the "Standards for Safety Assessments of Genetically Modified Foods (seed plants)[1]", included the safety of the inserted genes, toxicity and allergenicity of the protein produced from the inserted genes, post-insertion analyses of nucleotide sequences, stability of the inserted genes in the generation after crossing, influences on metabolic pathways in the plants, determinations of nutrients and toxic ingredients in the plants. Consequently, newly produced adverse effects derived from this soybean line are unlikely on humans based on the comparison between this line and the conventional counterpart.

In conclusion, no concern relevant to human health is raised on this soybean line SYHT0H2, possessing properties of *p*-hydroxyphenylpyruvate dioxygenase inhibitor and glufosinate-tolerancy.

[1] Decision of the Commission dated January 29, 2004