3 November 2015

Project Manager
Food Standards Australia New Zealand
PO Box 10559
The Terrace
Wellington 6143
NEW ZEALAND

Email: standards.management@foodstandards.gov.au

Dear Sir/Madam

Attached are the comments that the New Zealand Food & Grocery Council wishes to present on the ***Call for submissions – Application A1112: Food derived from Herbicide-tolerant Corn Line MZHG0JG.***

Yours sincerely

[redacted]

Katherine Rich
Chief Executive

Food Standards Australia New Zealand

CALL FOR SUBMISSIONS – APPLICATION A1112: FOOD DERIVED FROM HERBICIDE-TOLERANT CORN LINE MZHG0JG

6 November 2015

The New Zealand Food & Grocery Council (the "NZFGC") welcomes the opportunity to comment on the ***Call for submissions – Application A1112: Food derived from Herbicide-tolerant Corn Line MZHG0JG.***

New Zealand Food & Grocery Council

NZFGC represents the major manufacturers and suppliers of food, beverage and grocery products in New Zealand. This sector generates over $34 billion in the New Zealand domestic retail food, beverage and grocery products market, and over $28 billion in export revenue from exports to 185 countries – some 61% of total merchandise exports. Food and beverage manufacturing is the largest manufacturing sector in New Zealand, representing 46% of total manufacturing income and 34% of all manufacturing salaries and wages. Our members directly or indirectly employ 370,000 people – one in five of the workforce.

The Application

Syngenta Australia Pty Ltd is seeking permission for food derived from corn line MZHG0JG, which is genetically modified to provide tolerance to the herbicides glyphosate and glufosinate ammonium. Tolerance to glyphosate is achieved through expression of the enzyme commonly known by its acronym mEPSPS while tolerance to glufosinate is achieved through expression of the enzyme commonly known as PAT. The safety of both proteins has previously been assessed by FSANZ such as in herbicide-tolerant corn MON87427 (EPSPS) and cotton line DAS-81910-7 (PAT).

Comments

The safety assessment of MZHG0JG included several key elements. Detailed compositional analyses were done to establish the nutritional adequacy of grain from MZHG0JG and to characterise any unintended compositional changes. FSANZ particularly noted that, with the exception of vitamin A, the differences between 16 of 58 statistically significant analyte means of MZHG0JG and the control means were smaller than the variation within the control. FSANZ therefore concluded that grain from MZHG0JG was compositionally equivalent to grain from conventional corn varieties.

In undertaking a characterisation of the transferred genetic material, its origin, function and stability in the corn genome and characterisation of novel nucleic acids and protein in the whole food, FSANZ noted that the comprehensive molecular analyses indicated there was a single insertion site. This comprised a single, complete copy of each of the mEPSPS and PAT genes together with their regulatory elements. The introduced genetic elements were stably inherited from one generation to the next, there were no antibiotic resistance marker genes present in the line and no plasmid backbone had been incorporated into the transgenic locus.

In considering the safety of novel proteins, FSANZ noted that a large and diverse range of proteins are ingested as part of the normal human diet without any adverse effects, although

a small number have the potential to impair health. FSANZ found no concerns regarding the potential toxicity or allergenicity of the expressed proteins of grain from MZHG0JG. Previous safety assessments of both mEPSPS and PAT had indicated that the proteins would be rapidly degraded in the stomach following ingestion and would be inactivated by heating. Additionally, FSANZ identified updated bioinformatic studies that were considered in the assessment which reflected the lack of any significant amino acid sequence similarity to known protein toxins or allergens. The result is no potential public health and safety concerns were identified.

NZFGC supports choice in the market place and for manufacturers and note that all safety assessment reports of GM products prepared by FSANZ are independently reviewed. On this basis, NZFGC supports the approval of MZHG0JG. This does not infer its use in New Zealand nor is this intended to influence any process for environmental release of GM organisms in New Zealand which is an entirely separate process.