

Food Standards Australia New Zealand
Application A1066 – FOOD DERIVED FROM HERBICIDE-TOLERANT
CORN LINE MON87427 Safety Assessment Report
27 February 2012

The New Zealand Food & Grocery Council (the “NZFGC”) welcomes the opportunity to make a submission on Application A1066 – food derived from herbicide-tolerant corn line MON87427 Safety Assessment Report.

The NZFGC represents the major manufacturers and suppliers of food, beverage and grocery products in New Zealand. A number of these manufacturers and suppliers are major importers and exporters in New Zealand. NZFGC member companies supply over 95 percent of the processed food and beverages to the New Zealand grocery retail industry and over 70 percent of supermarket packaged good sales including ‘natural health products’.

The NZFGC understands that the Corn line MON87427 is tolerant to the herbicide glyphosate and that tolerance is achieved through the introduction of the *cp4 epsps* gene, from the soil bacterium *Agrobacterium* sp. Expressing the protein 5-enolpyruvylshikimate-3-phosphate synthase (CP4 EPSPS). NZFGC also understands that the EPSPS proteins have been widely used to confer glyphosate tolerance in a range of GM crop species that have previously been found to be safe as foods and have been included in the Australia New Zealand Food Standards Code.

Comments

The Australia New Zealand Food Standards Code contains, in Standard 1.5.2, the references to several previously approved herbicide-tolerant corn lines. The unique feature of the genetic modification in MON87427 compared to other approved herbicide-tolerant corn lines is that, according to the application, the regulatory elements driving expression of the *cp4 epsps* gene permit no, or only very low, expression of the CP4 EPSPS protein in pollen tissue. This means that inbred lines containing the MON87427 transformation event can be sprayed with glyphosate at a critical developmental stage to produce male sterile female parents for use in hybrid seed production programmes.

The safety assessment of corn line MON87427 conducted by Food Standards Australia New Zealand (FSANZ) included consideration of the following key elements:

- a characterisation of the transferred genes, their origin, function and stability in the corn genome
- the changes at the level of DNA and protein in the whole food
- detailed compositional analyses

- evaluation of intended and unintended changes
- the potential for the newly expressed proteins to be either allergenic or toxic in humans.

The FSANZ assessment of corn line MON87427 was restricted to food safety and nutritional issues. FSANZ did not identify any potential public health and safety concerns with MON87427.

The NZFGC supports choice in the market place and for manufacturers. The NZFGC also notes that all safety assessment reports of GM products are independently peer reviewed. On this basis, NZFGC therefore supports the approval of MON87427. This does not infer its use in New Zealand nor is this intended to influence the current process for environmental release of GM organisms in New Zealand which is an entirely separate process.