

SENATE QUESTION

QUESTION NUMBER: 2358
DATE ASKED: 06 May 2015
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SENATOR SIEWERT asked the Assistant Minister for Health, upon notice, on 06 May 2015:

With reference to Food Standards Australia New Zealand (FSANZ) and gene technology:

(1) Noting that Standard 1.5.2 defines gene technology as 'recombinant DNA techniques that alter the heritable genetic material of living cells or organisms', which of the following techniques does FSANZ consider to be gene technology under the Standard:

- (a) Pioneer Hi-Bred International's proprietary seed production technology (SPT) ;
- (b) reverse breeding;
- (c) Cisgenesis and intragenesis;
- (d) GM rootstock grafting;
- (e) Oligo-directed mutagenesis (ODM) ;
- (f) Zinc-finger nuclease (ZFN) technology;
- (g) accelerated breeding following induction of early flowering;
- (h) Transcription activator-like effector nucleases (TALENs) ;
- (i) Type II clustered, regularly interspaced, short palindromic repeats (CRISPR) /Cas systems;
- (j) Meganucleases;
- (k) Triplex-forming oligonucleotides; and/or
- (l) Agro-infiltration.

(2) Has FSANZ advised industry which of these techniques are not considered gene technology and will therefore not be subject to regulation; if so, can the techniques not considered gene technology be identified.

(3) Which of the food produced using techniques listed in paragraph 1 will be considered novel foods under Standard 1.5.1.

(4) For those techniques not considered gene technology or resulting in novel foods, how does FSANZ propose to regulate these techniques to ensure that they are safe.

(5) Has FSANZ approved any ingredients derived from techniques referred to in paragraph 1 for use in food; if so, can a list of these ingredients be provided.

(6) Will products derived from any of the techniques listed in paragraph 1 require labelling.

(7) Given that, in 2012 and 2013, FSANZ convened an expert panel to discuss new plant breeding techniques and whether these should be regarded as genetically modified

(GM) food, is FSANZ seeking or going to seek amendment of the code as a result of this advice on the basis that some of the techniques listed in paragraph 1 will not be deemed GM; if so:

(a) will this be a public process;

(b) how did FSANZ decide who to appoint to the expert panel; and

(c) do any members of the expert panel have potential conflicts of interest such as (but not limited to) a commercial interest or patents in these breeding techniques, if so, can a list of conflicts be provided.

(8) Given that the CODEX guideline for the conduct of food safety assessment of foods derived from recombinant-DNA plants (CAC/GL 45-2003) defines 'Recombinant-DNA Plant' as 'a plant in which the genetic material has been changed through in vitro nucleic acid techniques, including recombinant deoxyribonucleic acid (DNA) and direct injection of nucleic acid into cells or organelles', does FSANZ agree that a plant modified using the gene technology techniques mentioned in paragraph 1 would be considered a 'Recombinant-DNA Plant' under the guideline and require safety assessment.

SENATOR NASH – The answer to the Senator's question is as follows:

(1) In 2012 and 2013, Food Standards Australia New Zealand (FSANZ) hosted two technical workshops with invited experts to consider new plant breeding techniques. The objectives of the workshops were to enhance FSANZ's understanding of the techniques and any food products derived from them and to consider the scientific question of whether foods derived from plants developed using these techniques were more similar to GM foods or conventional foods. The techniques discussed were cisgenesis/ intragenesis; GM rootstock grafting; oligo-directed mutagenesis; reverse breeding, a number of targeted mutagenic techniques, accelerated breeding following early flowering, agro-infiltration; and seed production technology.

The scientific conclusions from the workshops, which were contained in the workshop reports, may assist FSANZ in any future consideration of applications to amend Standard 1.5.2 – Food produced using Gene Technology.

In the meantime, and in the absence of any applications to date, Australian state and territory government agencies are responsible for enforcing and interpreting the *Australia New Zealand Food Standards Code* (the Code), including interpretation of whether any of these techniques are considered to be gene technology under Standard 1.5.2. The Australian Government Department of Agriculture has this responsibility for imported food.

(2) No. The reports of the two workshops have been posted on the FSANZ website.

(3) See answer to (1).

(4) Foods derived using the techniques listed in (1) not captured by either Standard 1.5.1 – Novel Foods or Standard 1.5.2 would not require pre-market approval under the Code. Requirements for the production and sale of safe and suitable food are in relevant legislation in each of the states and territories.

(5) No. FSANZ has not received any applications to approve foods derived from any of the techniques listed in (1).

(6) Foods derived using the techniques listed in (1) will require mandatory labelling if they come within the scope of Standard 1.5.2 and meet the criteria for labelling, as specified in that Standard.

(7) FSANZ currently has no plans to amend the Code to address new breeding techniques.

- (a) All amendments to the Code are considered through a public process.
- (b) Members of the expert panels were selected on the basis of their scientific expertise and knowledge of plant breeding and biotechnology.
- (c) FSANZ is not aware that any members of the expert panel have potential conflicts of interest such as a commercial interest or patents in any of the listed breeding techniques. Some members of the panel have been, or are currently, engaged in research using some of the listed techniques.

(8) The Codex definition may be interpreted to include the techniques listed in (1). This definition is for the purpose of defining foods to which the safety assessment approach could be applied.