



11th April 2018

Food Standards Australia New Zealand
Level 4
15 Lancaster Place
Majura Park ACT 2609

Food derived using new breeding techniques

The PGA has become aware that Food Standards Australia New Zealand (FSANZ) is reviewing how the Food Standards Code applies to food derived using new breeding techniques (NBTs).

The Pastoralists and Graziers Association of WA (Inc) (PGA) is a non-profit industry organisation established in 1907, which represents primary producers in both the pastoral and agricultural regions of Western Australia.

As a state farming organization the PGA has a genuine interest in those new breeding techniques that will assist farming operations to reduce costs and improve productivity, as well as in continued innovations in the area.

The PGA is not expert in plant breeding techniques; but as the representative body for the end users of such techniques, we make the following broad comments.

The current PGA experience of Genetically Modified (GM) organisms is through the cultivation of GM crops.

In the context of the broad acre farming that is typical of the Western Australian grain belt, RR canola is the primary GM crop that is cultivated.

GM canola has been engineered to reduce the agronomic inputs (fuel, chemicals, fertilizer) required to grow it.

Western Australian grain growers plant canola in general as part of their crop rotation plans.

Canola in the rotation allows farmers to better manage their weeds. Because canola is a broadleaf crop, and because there are different herbicide tolerant

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varieties of canola, farmers have more options for weed control than in cereal crops such as wheat and barley.

Further, cereal yields after canola is cultivated are often enhanced because of the disease cleaning that occurs when an unrelated crop type such as canola is alternated with cereals and kept free of grassy weeds.

Canola is a profitable crop in its own right and is an excellent fit with the cereals or pulses that the vast majority of Western Australian grain belt farmers grow.

Canola is grown for its seed which is crushed, and the oil used in margarine, cooking oils, salad oils and edible oil blends, and as a bio-fuel.

Oil from GM canola does not contain any GM material from the plant, as the genetic material/DNA is removed in the refining process.

The PGA notes that some NBTs are quite different from the transgenesis technique most commonly used to introduce new DNA into an organism.

Some of these new techniques can be used to make defined changes to the genome of an organism without permanently introducing any new DNA, although it may be present in the genome initially. This organism may therefore contain genome changes but these will not include new DNA.

According to Crop Life Australia, foods and feed derived from crops produced using established techniques of genetic modification have been consumed since 1996 without a single documented adverse effect on human or animal health.

As predicted by scientists early on, food derived from these GM crops have posed no unique or incremental risks different to those foods derived from crop varieties produced through conventional breeding techniques, including mutagenesis.

The experience of Western Australian farmers when growing these GM crops is similar, in that there is no detectable disadvantage, only positives.

Food derived from conventional breeding methods, such as those that harness spontaneous or induced mutagenesis to generate large amounts of genomic variation is not subject to pre-market safety assessment.

Whilst the PGA is not arguing in this submission for the retrospective exclusion from regulation of existing GM foods currently listed in Standard 1.5.2, we note that such foods only fall under the regulatory purview of FSANZ because the genetic technique used to modify them was molecular.

This process based definition makes no biological sense, as it sets one kind of genetic modification apart from all those that plant breeders have used for decades.

Consequently, food derived from similar genetic variation, when generated using newer plant breeding innovations, should not be subject to pre-market regulation purely on the process through which it was created.

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If there is no 'new DNA' in the organism from which the food product is derived then future products should not be captured by the Code for pre-market safety assessment and approval.

If a food derived from NBTs passes all the tests that FSANZ would subject 'normal' food to, then, it is normal food as well. The fact that it has been derived from NBTs is irrelevant from the perspective of human nutrition and health.

Farmers will miss out on innovation if these plant breeding innovations are regulated as GM foods.

As a final point, the PGA notes that there are currently three reviews underway into how Australia regulates Gene Technology;

1. 2016 Technical Review of the Gene Technology Regulations
2. 2017 Review of the National Gene Technology Regulatory Scheme
3. 2018 FSANZ Review of Food Derived Using New Breeding Techniques

The PGA believes in small government and efficient regulation.

Therefore, it is important that new plant breeding technologies are regulated as rationally as possible between different Australian Government regulatory agencies.

Consequently, from a market perspective the only two things that really matter are;

1. Are the manufacturing processes associated with foods derived from NBTs safe, which is within the jurisdiction of the Office of the Gene Technology Regulator, and
2. Is the product safe for human consumption, which is within the jurisdiction of FSANZ.

Yours Faithfully



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