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March 15, 2017

To: "Britt Spyrou - Ag Dept" < Britt. Spyrou@agriculture.gov.au>

Re: comments on Accessing Premium Markets: Australian Organics

Introduction

We will comment only on the direct references in the report to GM-free crops and foods and their relationship to organic production systems and their products.

Recommendations

- a. The Commonwealth to enact laws modeled on the WA Department of Agriculture Coexistence Guidelines, ¹ making them fully enforceable nationally, so GM contamination is minimised on and off farm, and in supply chains.
- b. Legislate a Farmer Protection Fund, with a levy of \$1/kg on all GM seed sales in Australia. The Fund would automatically compensate any GM-affected organic and conventional farmers, landholders and supply chain managers for proven economic losses, extra costs and harm sustained as a result of contamination with Genetically Manipulated Organisms (GMOs), including all new GM techniques which are now unregulated.
- c. All new GM techniques and processes {• Oligonucleotide directed mutagenesis (ODM); Zinc finger nuclease technology types I to III (ZFN-I, ZFN-III); CRISPR/Cas9; Meganucleases; Cisgenesis; Grafting on a transgene rootstock; Agro-infiltration; RNA-dependent DNA methylation (RdDM); Reverse Breeding; and all Synthetic Genomics; plus null segregants produced using Techniques to Support Breeding (TSBs), such as Seed Production Technology (SPT)}, all be regulated as GMOs.
- d. That all the new GM techniques, processes and products be initially placed in the highest risk category for assessment, until more robust scientific evidence and real world experience is available to evaluate their risks, hazards and costs.
- e. Their products also to be regulated as GM events under the Gene Technology Act 2000, and other Commonwealth Regulatory systems for food, farms, and chemicals.
- f. All these precautionary measures to be enacted nationally through amendments to the Gene Technology Act 2000 and other Acts, that would also flow on to all the states and territories through their state laws.
- g. The Precautionary and Polluter Pays Principles to be applied rigorously to all assessments, licensing and monitoring of new GM techniques and their products.
- h. All products derived from new GM techniques to be labelled to protect the right to know and choice for organic and conventional farmers, processors and shoppers.
- i. A moratorium to be placed on the release and commercialisation of all new GM techniques and their products especially gene drives be introduced until our regulatory system for GMOs is fully adapted to deal with the risks they pose.

¹ DAFWA, Coexistence of different production systems https://www.agric.wa.gov.au/genetic-modification/coexistence-different-production-systems

Comments on the organic workshop text

1. A topic for further research is how to manage GM contamination

Gene Ethics has been a network of advocates and campaigners for GM-free futures since 1988. We would therefore welcome the opportunity to continue working with all sectors of organic supply chains to find and implement management and policy solutions to the various problems of organics and GM.

1.1 GM Contamination of Organic Foods

As well as being a major concern for organics growers, GM contamination of the organic food supply is also a key issue of trust and confidence for shoppers, supply chain managers, processors, traders, retailers, exporters and governments. All should be able to participate in finding solutions.

Public attitudes and sentiment very much identify organic crops and foods with safety and healthiness, including GM-free. They rely on organic produce being from systems that eschew the use of many of the synthetic inputs on which conventional, industrial agriculture depends, including GM seeds, chemical pesticides and fertilisers, along with food processing aids and additives.

The workshop report correctly notes that: "zero tolerance offers Australian products a market advantage over other countries which permit accidental GMO contamination of organic product."

Indeed, as we showed above, GM-free with zero tolerance is an important Quality Assurance benchmark and valuable marketing tool for organic foods. Organic food's reputation would be irrevocably tarnished when it became known that GM contamination were acceptable under the Organic Standard.

Moving away from zero tolerance to any GM contamination in the organic food supply would be risky, from management and marketing perspectives. In 2015 the WA Department of Agriculture (DAFWA) proposed in an application to the Organic Industry Standards and Certification Council (OISCC) that an allowable level of 0.9% GM contamination in organics be set. OISCC rejected DAFWA's Application to Alter the National Standard.

In response to DAFWA's application to allow GM contamination in the organic standard, OISCC received 3,000 petition signatures & 200 comments, emails & calls, all supporting zero tolerance.

The Petition to Keep Organic Standards 100% GM-Free requested OISCC to reject the application from the WA Department of Agriculture and Food to include up to 0.9% GM contamination in organic standards. It also noted that: "Currently the Australian Organic Standard AS6000 does not permit any GMOs and is our only guarantee to access 100% GM-free food. The Organic Industry should not be responsible for the failure of the GM industry to securely segregate its product."

The response reflected deep public concern over GM contamination and this WA government assault on the organic standard.

OISCC's zero GM tolerance policy for certified organic exports is in good company. For instance the Chinese government has zero tolerance for any unauthorised GM in its food supply. ² Several shipments of US and Canadian hay have been rejected after finding seed from the Roundup tolerant alfala that is now widely inter-cropped with vegetables on US farms. Exporter, Ed Shaw, asserts: "China has zero tolerance and I mean zero tolerance, not several parts per million but zero tolerance." ³ China has also rejected 1.4 million tons of US GM corn, over GM contamination, despite attractive prices. ⁴

In the Starlink corn case, the recall of food products contaminated with unapproved GM corn cost

² Library of Congress, Restrictions on Genetically Modified Organisms: China. https://www.loc.gov/law/help/restrictions-on-gmos/china.php

³ The Western Producer, Mary MacArthur, November 28, 2014.

http://www.producer.com/2014/11/roundup-ready-in-alfalfa-exports-catastrophic/

⁴ MidWest Corn Lawsuit, http://www.midwestcornlawsuit.com/about/

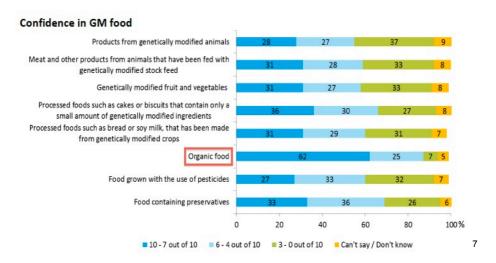
Aventis up to \$1 billion and the company went out of the GM crop business. ⁵ The vast majority of Australian farmers also remain GM-free, along with 160 countries and over 500 million other farmers. The biggest ever shipment of Australian canola, guaranteed GM-free, left WA for Europe in2015. And the MacSmith brothers at MSM Milling in NSW also supply exclusively GM-free oils and stock feed. Demand for GM-free products is booming.

The Organic Industry Standards & Certification Council (OISCC) has not allowed the WA Agriculture Department to corrupt organic foods with genetically manipulated (GM) products. Zero tolerance for GM in organic foods remains, despite the Department's plea for a 0.9% threshold of allowable GM contamination

Several public opinion surveys present data that confirms the intimate connections between certified organics and being free of synthetic inputs, including GM, as now mandated in Organic Standards.

1.1.1 For instance, the Instinct and Reason report for the Office of Gene Technology Regulator (OGTR) explored levels of: "Confidence in food and the influence of GM on food consumption" ⁶ and found: "The only food that rated significantly differently (from foods with various GM ingredients or preservatives) was organic food with those who supported it—coming from the top four rankings out of 11—at 62%."

Strong support for organic food products and concern over food made using GM techniques are interrelated. Organic shoppers are likely to be very averse to GM in organic foods and to lose confidence in organic foods suspected of being GM contaminated.



1.1.2 The Nielsen Global Health and Ingredient-Sentiment Survey ⁸ also demonstrates the intimate connection between growth in organic sales and shopper responses to the presence of favourable - or absence of unfavourable - ingredients in organic foods.

They report: "In Germany, volume sales of organic products grew 10.6% over the 52 weeks ended April 3, 2016. In the US, volume sales of products with an organic claim on the package grew 13.1% over the 52 weeks ended July 30, 2016. In addition, products with claims that they are hormone-or antibiotic-free, GMO-free or natural grew 21.7%, 12.0% and 7.5%, respectively, over the same period. Claims that the product was made without artificial colors or flavors (that may be GM), high-fructose corn syrup (almost 100% GM in the US) or MSG also grew compared to the previous year, with volume sales of such products growing 5.4%, 3.2% and 2.3%, respectively, year over year." ⁹

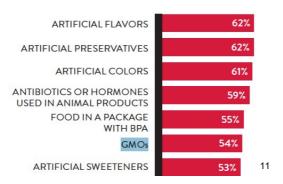
⁵ StarLink corn recall. https://en.wikipedia.org/wiki/StarLink_corn_recall

⁶ Instinct and Reason, Community Attitudes to Gene Technology, prepared for the OGTR, June 2015. Doc J 2205. http://www.ogtr.gov.au/internet/ogtr/publishing.nsf/Content/327437B632158967CA257D70008360B1/\$File/Community%20attitudes%20gene%20technology%20Final%20Repor%202015.pdf

⁸ The Nielsen Global Health and Ingredient-Sentiment Survey, What's in Our Food and On Our Minds: ingredient and dining trends around the world, Nielsen, August, 2016 http://www.nielsen.com/us/en/insights/reports/2016/whats-in-our-food-and-on-our-minds.html
⁹ Ibid. P12.

Nielsen also reports: "European respondents are more likely than the global average to say they wish there were more products without ... GMOs (46% versus 38%), while Asia-Pacific has the highest percentage of respondents who say they want more organic products (51% versus 44% globally)." ¹⁰

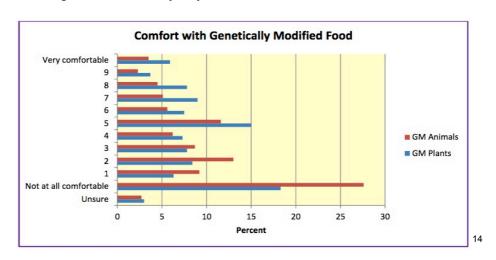
GLOBAL AVERAGE: PERCENTAGE WHO SAY THEY TRY TO AVOID SPECIFIED INGREDIENT OR ATTRIBUTE



The report also asserts that manufacturers should: "... remove or replace undesirable ingredients ... including artificial colors, flavors, preservatives and sweeteners; antibiotics; GMOs; and packaging made with BPA (and) leverage powerful brand names through line extensions, creating organic and natural alternatives to their existing product lines." ¹²

GM is therefore highly placed in the galaxy of unwanted processes and ingredients that should not be acceptable if the organic brand wants to maintain its perceived integrity.

1.1.3 The Swinburne National Technology and Society Monitor, 2013 ¹³ further confirms that a majority of Australians are uncomfortable, or not at all comfortable, with GM foods, particularly with GM animals. So prohibition of these ingredients in organic foods bodes well for strong growth in sales, as shoppers become more discerning about what they buy and feed to their families.



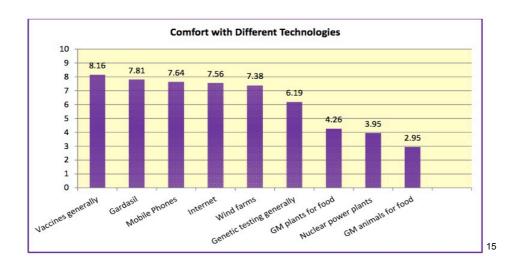
They further observe: "Australians are not comfortable with nuclear power plants or genetically modified (GM) foods." This is an odious comparison, especially for GM animal products which, for some people, includes the feeding of GM feedstock – corn or soy – to farm animals.

¹⁰ Ibid. P17.

¹¹ Ibid. P10.

¹² Ibid. P18.

¹³ Gordana Bruce and Christine Critchley, Swinburne National Technology and Society Monitor, 2013, Psychological Sciences & Statistics Faculty of Life & Social Sciences Swinburne University of Technology, Melbourne. http://www.swinburne.edu.au/lss/spru/monitor/Monitor2013.pdf
¹⁴ Ibid. P12.



1.1.4 Alice Woodhead and her collaborators from the Australian Centre for Sustainable Business and Development at the University of Southern Queensland report that in China: "The price and quality of GM food is the main factor affecting purchase decisions," a conclusion similar to results in Europe where: "customers were willing to choose GM foods provided there was a price advantage."

Table 1: Retail price difference between organic, non-GM and GM cooking oil (2015).

Organic A\$6/L to A\$8.8/L		Non-GM	GM		
		A\$3.2/L to A\$4.6/L A\$1.6/L to A\$2.6/			\$2.6/L
Sources:		ews, sciencenet.cn/htmlnews p://www.agrogene.cn/info-5		2725.st	uten .

Clearly, in China at least, maintaining zero tolerance for GM in the organic food supply is essential for earning the substantial premiums for organic. In the European canola market this also applies to the conventional supply, with CBH setting zero tolerance for GM and taking elaborate measures to ensure it is maintained.

1.2 GM contamination of certified Organic Land and Crops

The report notes that: "Some conventional and organic producers remain concerned about potential economic loss from losing organic accreditation and subsequent legal actions due to GM contamination."

There are at least aspects to this: preventing GM contamination through stricter management to strengthen coexistence; where coexistence fails ensuring that the GM industry fully compensates those that its products harm; and, phasing out GM crops and foods.

Before the March 11, 2017 state election in Western Australia, the ALP said that, if elected, it would put more focus on: "protecting non-GM farmers from contamination". ¹⁷ Now that it is the new WA Government, it should legislate a Farmer Protection Fund, with a levy of \$1/kg on all GM seed sales. The Fund would automatically pay out any GM-affected landholders and supply chain managers for proven economic losses, extra costs and harm. The GM industry must pay for the damage it does.

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¹⁵ Ibid. P5.

¹⁶ Woodhead, A. et al, Review of Asian Consumer Attitudes Towards GM Food and Implications for Agricultural Technology Development in Australia, Farm Policy Journal | Vol 12 No 3 | Spring Quarter 2015 P39 Also at: Agricultural Innovation Submission 85 - Attachment 1

¹⁷ WA election: Where do the Liberals and Labor stand on the big issues? Jacob Kagi, ABC Online, March 10, 2017. http://www.abc.net.au/news/2017-03-10/wa-election-how-do-the-liberals-and-labor-differ-on-policy/8322080

Federal and State Parliaments should also enact DAFWA's Coexistence Guidelines ¹⁸ into enforceable laws, so that farmers like Steve Marsh, and Ian and Jodi James ¹⁹ have protection and automatic compensation for the losses they incur as a result of GM contamination.

These precautionary measures should be enacted nationally with amendments to the Gene Technology Act 2000 that would flow on to all the states too.

1.2.1 Whether the organic standard should allow for GM contamination was still contested

The draft workshop report does not say who contested it, nor on what grounds.

In our view there is no basis for the claim that: "The Court decision in Marsh v Baxter [2015] WASCA 169 found that a conventional farmer was not liable for economic loss of his neighbour due to loss of organic certification from accidental contamination as the organic standards were 'abnormally sensitive'."

As we have shown above and will elaborate below, zero tolerance is practiced in many GM-free food and seed supply chains. There is nothing abnormal or over-sensitive about prohibitions on GM processes or products in the Organic Standard. This framing of GM contamination in organic production systems does not fairly represent the issues at stake.

1.2.2 NASAA decertified Steve Marsh's organic farm in 2010 over GM canola contamination. Despite GM industry claims that zero tolerance was unrealistic and that Marsh should have sued the certifier for his decertification, under the Organic Standard NASAA had no alternative but to act as it did.

In the Marsh vs Baxter case, once Baxter had declined to negotiate a compromise and settle Marsh's losses of \$85,000, the only course open to Marsh (apart from absorbing his own losses) was to sue Baxter. Unknown to the plaintiff or public, Monsanto had indemnified Baxter for his legal costs, so there was no great imperative for Baxter to settle the case before it was heard.

After winning the case Baxter still claimed: "This should never have even gone to court because between farmers, we should've just had a chat over the fence, had a couple of beers, you know, this would've been all sorted out." ²⁰

Though Marsh lost the first case and his appeal, in her clear and incisive judgment at appeal Chief Judge of the WA Court of Appeal Carmel McClure strongly backed Marsh's case for compensation. Judge McClure found that Marsh's certifier was right to decertify his land, according to federal organic standards, and that his compensation claim should also have been upheld.

The Pastoralists and Graziers Association (PGA) held Baxter up as a victim even though he had failed to respect his neighbour's notices or his GM-free and organic certification. Baxter windrowed his GM canola to dry. He claimed to not know that it may blow onto Marsh's land, scattering millions of seeds. But long before the GM planting and contamination event, Marsh had spoken to Baxter, written to him and posted signs on his own boundary fences, warning that GM canola was a hazard to his organic certification and livelihood.

Baxter even failed to abide by DAFWA's weak and ineffective guidelines on the "Coexistence of different production systems," ²¹ which say: "you might consider factors which may influence the risk of material (for example, soil, plants, pesticides, disease inoculum, and so on) transferring from your property to other properties and possible steps you might adopt to minimise these risks. Farmers have a duty of care to manage their crops to minimise impacts on others."

Some GM growers are unwilling or unable to: "make an informed judgment on whether the risk of harm of your production activity to your neighbour's production system is manageable. If the risk of harm is not manageable you might re-consider your proposed production activity."

¹⁸ DAFWA, Coexistence of different production systems. https://www.agric.wa.gov.au/genetic-modification/coexistence-different-production-systems

¹⁹ Labor changes tack on GM canola, Cally Dupe, The Countryman, Thursday, 19 January 2017 https://thewest.com.au/countryman/news/labor-changes-tack-on-gm-canola-ng-b88357709z

Organic farmer Steve Marsh loses GM appeal for compensation from neighbour Michael Baxter, By David Weber and Tyne McConnon, September 3, 2015. http://www.abc.net.au/news/2015-09-03/organic-farmer-steve-marsh-loses-gm-appeal/6746108 NA Dept of Agriculture. https://www.agric.wa.gov.au/print/node/2716

GM growers, including Michael Baxter, ignored DAFWA's advice to: "consider prevailing winds avoiding cultivation of GM material in areas subject to wind events which might transfer GM material onto adjacent properties. Avoid swathing in boundary paddocks, if you must swath a boundary paddock leave a buffer of standing crop along your boundary fence. ... avoid cultivation of GM material in areas subject to flooding and run off onto adjacent properties."

Most GM farmers have failed to heed the advice to: "Discuss your planned production activities with your neighbours. You may find it helpful to fill in the proforma letter 'Coexistence letter' and give it to your neighbour to start a discussion."

DAFWA's Coexistence Guidelines should be made fully enforceable, to minimise GM contamination, on and off farm and to ensure that liability for harm rests on the GM industry and its licensees, the GM growers when they fail to comply.

1.2.3 Our governments failed on liability too. When drafting the Gene Technology Act 2001, they decided the courts and the common law could settle claims for damage from GM contamination. ²² But Marsh vs Baxter case shows the 95% of Australia's 132,000 organic and conventional farmers who remain GM-free are unprotected by the courts. Certified GM-free export markets in Europe and the premiums they pay are also at risk, as buyers have zero tolerance for any GM canola in Australia's biggest canola market.

Recorded failures of GM and GM-free coexistence are legion. The GM Contamination Register ²³ catalogues 396 GM contamination incidents globally from 1997 to 2013, in 22 different broad-acre and horticultural crops, and honey.

Australia's GM Contamination Register and maps record GM crop plantings and GM contamination incidents. ²⁴ In Tasmania, the publicly funded cleanup of GM canola contamination from Aventis' field trials in 1999 cost the government several million dollars as the company had gone out of business. The cleanup took 15 years of monitoring and decontamination. ²⁵

1.2.4 Organic certifiers and growers are ridiculed and vilified for having zero tolerance for any GM contamination in the Organic Standard.

The GM industry claims to have a 0.9% tolerance for GM contamination in canola but WA's biggest grain handler and trader, Cooperative Bulk Handlers (CBH), operates segregation with zero tolerance for GM. This means WA farmers have been earning a premium of up to \$70/tonne in Europe for GM-free canola since 2006. Several other Australian grain buyers and traders also have zero tolerance for GM in their premium exports.

GM contamination would ruin the European market which Australia won from the Canadians in 2003 when Canada's crop became mostly GM.

Where there is any perceived chance that GM canola may be in a load of non-GM canola, CBH requires it to be tipped onto the GM stack. This co-mingling downgrades the GM-free product and foregoes the export premium of up to \$70/tonne. While the GM-free grower is still paid the premium, the premium cannot be collected from the overseas buyers and is lost to the system.

All WA's 4,400 growers pay a share of the loss. GM-free canola growers are thus forced to subsidise the few who grow GM. Darren West MLC told the WA parliament that he calculated downgrading a truck load of GM-free canola that he personally delivered had cost growers \$1,334 and that overall losses from such incidents: "must run into hundreds of thousands of dollars". CBH Kwinana Zone manager Gavin Bignell said CBH maintained a strict segregation of GM and non-GM canola throughout the supply chain. ²⁶

²⁵ Tasmanian Government, Former GM Canola Trial Sites Audit Reports.

²² Liability Issues Associated with GM Crops in Australia, Science and Economic Policy Branch, Australian Government Department of Agriculture, Fisheries and Forestry, September 2003.

²³ Online GM Contamination Register. http://www.gmcontaminationregister.org/

²⁴ CropWatch register and maps. http://www.gmcropwatch.org.au/

http://dpipwe.tas.gov.au/biosecurity/product-integrity/gene-technology/former-gm-canola-trial-sites-audit-reports ²⁶ Premium paid for contaminated canola load, Rachael Oxborrow, Farm Weekly, December 10, 2015

By downgrading GM-free product to GM, the amount of GM canola produced is also inflated. This makes the GM part of the industry appear bigger than it really is. GM-free producers, the vast majority of grain growers everywhere, should not have to pick up the tab for a system white-anted by GM varieties.

The vast majority of Australian farmers remain GM-free, along with 160 countries and over 500 million other farmers. The biggest ever shipment of Australian canola, guaranteed GM-free, left WA for Europe at the end of 2015.

2. Organics are regulated under 'truth in labelling' requirements in consumer law

GM-free claims are absolute claims. The ACCC regards any presence of a GM ingredient or use of GM production processes in processing a product labeled GM-free – whether intentional or inadvertent – as misleading and deceptive, and therefore an infringement of Section 52 of the Trade Practices Act.

As the Organic Standard prohibits GM content, there may be an implication that all organic foods make a GM-free claim, whether explicitly labeled as such, or not. This could appear to make organic foods more vulnerable to breaches of the Act but certification systems seem to have coped well.

The ACCC warns food processors - organic and conventional – that they can encounter problems with: "Absolute claims such as 'totally fat free' or '100% GM free' or '100% freshly squeezed orange juice'. Manufacturers choose to call their products 'all Australian' or '100% GM free' with the object of attracting consumers and gaining a marketing advantage. (so) A claim that is false will clearly breach the Act. ²⁷

The ACCC also warned, when GM foods began to enter the food supply that it would: "closely monitor the voluntary claims that businesses make over and above their obligations in relation to the Standard. Businesses should take care to ensure that any voluntary claims do not contradict the Standard or constitute false, misleading or deceptive conduct under section 52 of the Act". ... "There is no room for ambiguity with a 'GM Free' claim. Businesses must be able to verify any labelling claim. The ACCC will be looking for documented verification systems underpinned by an effective Trade Practices compliance program." 28

In practice, where potential breaches of the GM-free labeling rules are detected, the ACCC warns the offenders and assists them to comply without imposing a penalty. For instance, in 2004 the ACCC found that: "a statement or claim could be potentially misleading or deceptive even if it was technically true. Packaging claiming 'not genetically modified' could mislead consumers in this case (chickens) given that feed which is genetically modified may be being used".

By agreement, Baiada Poultry Pty Ltd relabelled its Lilydale Select Free Range chicken products following discussions with the ACCC. Labels on trays of Lilydale chicken fillets had said the chickens were 'not genetically modified'. However, as the feed for Baiada's chickens may have contained GM soy, the ACCC believed the claim could be misleading as it may have conveyed to shoppers that the chicken feed was GM-free. Bartter Steggles also agreed to comply with agreed package labeling changes. 25

3. The OGTR may decide new techniques are not GM

The OGTR published a discussion on the Technical Review of the Gene Technology Regulations 2001 in November 2016. 30 In the paper, 4 Options are proposed for the regulation of the new GM techniques (so-called 'gene-editing' - CRISPR, etc). Option 1 is the status quo, which leaves the OGTR's regulatory powers and the law unclear; Option 2 proposes to regulate almost all the new techniques; Option 3

http://www.farmweekly.com.au/news/agriculture/agribusiness/general-news/premium-paid-for-contaminated-canolaload/2749430.aspx

Graeme Samuel, Chairman ACCC, Speech to the Food and Grocery Council of Australia, Canberra, September 16, 2003, Competition and the nation's supermarket trolley: A perspective of the Australian Competition and Consumer Commission. http://www.accc.gov.au/system/files/Competition%20and%20the%20nations%20supermarket%20trolley.pdf

ACCC watches new labelling of GM foods, January 18, 2002. http://www.accc.gov.au/media-release/accc-watches-newlabelling-of-gm-foods

Changes to 'GM-Free' chicken labelling under way, December 6 2004

http://www.accc.gov.au/media-release/changes-to-gm-free-chicken-labelling-under-way ³⁰ OGTR, 2016-17 Technical Review of the Gene Technology Regulations 2001, http://www.ogtr.gov.au/internet/ogtr/publishing.nsf/Content/reviewregulations-1

would regulate some but not others of the new techniques; and Option 4 is for deregulation. The OGTR is now deciding which of the options to develop further and implement.

We supported option 2, and want null segregants to be also included, as we share the workshop participants' concerns that domestic GM laws and regulations may exclude some or all of the products of new GM techniques from regulation. The International Federation of Organic Agriculture Movements (IFOAM) EU Group has said: "Organic farming, which is legally defined at the EU level Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91, excludes GMOs and products produced from or by GMOs from its production process." ³¹

We agree with the workshop discussion report that the unlabelled and unidentified presence of the products of any of the products of new GM techniques could be very disruptive to organic production and supply chains, which are expected to exclude them. As governments and regulators in several of our larger markets have not yet taken a regulatory position, so both domestic production systems and export markets could be threatened. Products grown using the new GM techniques may enter the food chain so Australian exporters could have organic and conventional products rejected, in local and overseas markets as we have already seen in China and other countries. NZ specifically classifies all the new genetic engineering techniques as GM explicitly and will regulate them accordingly, to ensure market access and acceptance of their export products continues.

IFOAM's EU Group: "considers that the NPBTs (New Plant Breeding Techniques) discussed below should be, without question, considered as techniques of genetic modification leading to GMOs according to the existing EU legal definition and that the Commission should explicitly confirm that they fall within the scope of the GMO legislation," which would therefore exclude them from organic production systems." ³²

Therefore: "The IFOAM EU Group considers that the Commission should urgently clarify that the following NPBTs fall within the scope of the GMO legislation:

- Oligonucleotide directed mutagenesis (ODM)
- Zinc finger nuclease technology types I to III (ZFN-I, ZFN-II, ZFN-III)
- CRISPR/Cas9
- Meganucleases
- Cisgenesis
- · Grafting on a transgene rootstock
- Agro-infiltration
- RNA-dependent DNA methylation (RdDM)
- · Reverse Breeding
- Synthetic Genomics"

We recommend that the OGTR follow the same process in Australia.

Attached are:

- 1. Our comments on the Organic Workshop draft report
- 2. Our comments on the OGTR's Technical Review of the GT Regulations 2001;
- 3. Friends of the Earth Australia, New and Emerging Technologies fact sheets x 2;
- 4. Two papers from The African Centre for Biodiversity on:
 - a) Biosafety Risks of Genome Editing Techniques in Plant Breeding, February 2017; and
 - b) Biosafety considerations of Novel Plant breeding Techniques, February 2017.

³¹ IFOAM, New Plant Breeding Techniques Position paper, 10 December 2015. http://www.ifoameu.org/sites/default/files/ifoameu_policy_npbts_position_final_20151210.pdf