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Commissioner Lindwall and Team
Productivity Commission
Locked Bag 2, Collins St East
Melbourne VIC 8003, Australia

Re: Agricultural Regulation

We herewith submit more evidence and comment relevant to recommendation 6.1 in the draft report.

Recommendation to remove draft Recommendation 6.1 from the draft:

Please favourably consider the substantial grounds for removing Draft Recommendation 6.1 from your final report, which states:

> The New South Wales, South Australian, Western Australian, Tasmanian and Australian Capital Territory governments should remove their moratoria (prohibitions) on genetically modified crops. All state and territory governments should also repeal the legislation that imposes or gives them powers to impose moratoria on the cultivation of genetically modified organisms by 2018.
>
> The removal of the moratoria and repeal of the relevant legislation should be accompanied by the provision of accurate information about the risks and benefits to the Australian community from genetic modification technologies. State and territory governments, the Office of the Gene Technology Regulator and Food Standards Australia New Zealand should actively coordinate the provision of this information.

We offer the following submission in support of our recommendation to remove 6.1. Please publish it.

South Australian Report:

On September 28, South Australian Minister for Agriculture, Food and Fisheries Leon Bignell and his department published the University of Adelaide report he had commissioned, entitled: **"Identification and Assessment of Added-Value Export Market Opportunities for Non-GMO Labeled Food Products from South Australia".** [1]

The report finds good evidence that present and potential demand for South Australia's GM-free food and beverages is strong and the demand for GM-free organic foods is fast growing. A partnership of the SA government and food industry working together could achieve a GM-free and naturally healthy food bonanza for the state. We fully support the report's conclusion that: 'opportunity lies in promoting a broad-based platform of ‘naturally healthy’ products (that are GM-free) from South Australia with claims that can be underpinned by traceability and verification systems.'

[1] http://www.pir.sa.gov.au/premium_food_and_wine/food/gm_crops

If your draft recommendation 6.1 were implemented, South Australia's powers to protect its growing GM-free and organic markets would be adversely affected as the state government would have no discretion or means to defend its GM-free status, for marketing reasons.

Power sharing is healthy for our democratic processes and commerce. Commonwealth regulators have the power to assess, regulate and license GM organisms for experimental and commercial release, on health and environmental grounds. It is entirely appropriate that state governments should have the power to assess their commercial and social impacts and also regulate accordingly.

Recommendation:
That draft recommendation 6.1 be deleted from the final report.

Nuffield Genome Editing and Ethical Review: [2]

Genome editing, including CRISPR/Cas9 techniques, have the potential to create a cornucopia of new Genetically Manipulated organisms for commercial release. In a recent keynote address to the Ausbiotech 2016 Ag and Food Tech Symposium, Australia's Chief Scientist Prof. Alan Finkel said:

"I look out across the horizon for biotechnology in agriculture, and I am staggered by the possibilities that a technology like CRISPR represents. This is not genetic modification as people have imagined it since the 1980s. This is something fundamentally different: a pair of scissors that we can wield with nuance, efficiency and control. (Gene Ethics notes that similar claims were made for GM techniques and their products used since the 1980s to create GMOs) We are barely two years into the CRISPR age – and who can keep count of all the extraordinary applications?

- Mushrooms that don't brown in storage
- Barley that makes its own ammonium fertiliser from nitrogen in the soil
- Beetroot that makes the Parkinson's drug L-dopa
- Tomatoes that conquer anaemia
- Pigs immune to swine fever
- Chickens that produce only female offspring, for eggs
- And cattle that produce only males, for meat.

Add to this the phrase 'gene drive'… and the urgency of this conversation is clear." [3]

The Chief Scientist might also have mentioned that although just five broad-acre crops and a few horticultural plants comprise most releases to date, other GMOs already released or proposed for release include: trees (GM eucalypts in North America), insects (mosquitoes in WA labs), fish (salmon in Central and North America, already rejected in Tasmania), fungi (CRISPR mushrooms in the USA), animals, various microbes, and live vaccines (for cholera, prostate cancer, equine influenza, Hendra virus, etc.). Some organisms that may be created using CRISPR, synthetic biology, etc. do not even exist yet and have never existed in Nature before. All their potential impacts are completely unknown.

Yet the OGTR has not yet begun the public process to deliberate and decide on whether or not to assess or regulate the health, safety and environmental impacts of this genetic revolution. The present narrow definition of GMO, designed to accommodate only C20 techniques, will need to be extended to embrace the new 'gene-editing' techniques and their products or they may enter laboratories, agriculture and markets without any constraints whatsoever.

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[2] http://nuffieldbioethics.org/project/genome-editing/ethical-review-published-september-2016/
[3] http://www.chiefscientist.gov.au/wp-content/uploads/Chief-Scientist-AusBiotech-agriculture-2-August-2016.pdf

Because of the regulatory vacuum and uncertainty, some University Institutional Biosafety Committees (IBC) have taken the unprecedented step of including CRISPR etc. within the rubric of existing procedures, to exercise control over gene-editing experiments and trials on behalf of their institutions which may otherwise be legally vulnerable. [4] For instance, Victoria University IBC says: "NB: Gene Editing Technologies (e.g. Crispr/Cas9 system), although not technically classified as gene technologies by the OGTR, are reviewed by VU's IBC via the high risk project application process." [5]

In this state of regulatory, technical and market uncertainty it would be premature and reckless to strip from State Governments their powers to establish GM and GM-free Zones, or prohibit the release of Genetically Manipulated Organisms, for marketing reasons.

Recommendation:
That draft recommendation 6.1 be deleted from the final report.

Segregation and coexistence:

The Productivity Commission does not appear to have confirmed with first hand evidence that the claims made for the success of GM and non-GM canola segregation and coexistence are sound.

The Commission should elicit data and other solid evidence from the grain handlers and marketers on the front line of GM and non-GM canola segregation and coexistence, such as CBH, Cargill, AWB, Agrigrain, Emerald Grain, Australian Grain Link, GrainCorp, etc.

The draft report makes the unconvincing and poorly supported claim that: "evidence suggests that it is possible to manage segregation throughout the supply chain such that GM and non-GM systems can co-exist."

But the draft offers only hearsay from unreliable witnesses as evidence. The claims made in 2007, prior to any commercial GM canola being grown in Victoria and NSW are just speculation. Notes from the Western Australian Government that defend its decision to allow GM canola are clearly political. The GM advocacy group Pastoralists and Graziers Association of WA does not represent CBH's 4,135 grain growers members, yet displaying self-interest it claims that: "CBH has no difficulties segregating GM and non-GM canola". As the peak body of GM seed patent and agrichemical owners - Monsanto, Bayer, Syngenta, etc. - CropLife Australia solely promotes their interests and this shows in its comments which focus on delivering GM canola.

The claims of GM and organic coexistence are short on detail. The Marsh vs Baxter case refutes such idle claims and Monsanto's concerted litigation against North American growers for allegedly growing the company's patented seed with a licence shows coexistence and segregation failing. [6]

Recommendation:
That the Commission acquire additional first hand data and evidence for inclusion in its final report, on the question of segregation and coexistence of GM and non-GM canola. That the draft report be amended accordingly and that Recommendation 6.1 be deleted.

[4] https://www.flinders.edu.au/research/researcher-support/ebi/biosafety/about.cfm
[5] https://policy.vu.edu.au/view.current.php?id=00384&dvid=1
[6] http://www.centerforfoodsafety.org/files/cfsmonsantovsfarmerreport11305.pdf

GM seed and agrichemical cartel:

The Commission should thoroughly examine the many consequences if a cartel of just four mega corporations gains control of the global industrial seed (Conventional and GM), agrochemicals, fertilisers and other farm inputs, through which they will also control global food supplies. The Bayer/Monsanto merger will create the world's biggest agrochemical and seed conglomerate. The merged Dow and Dupont will be second, with the combined ChemChina and Syngenta third, and BASF fourth.

As cotton grower Graham Clapham observes: "It seems like we're now in a monopoly situation as far as seed and plant material is concerned and nothing ever works well in a monopoly market. It is always best to have competition, no matter which way you look at it." [7]

Recommendation:
That the Commission remove Rec 6.1 from its draft report, as State Government powers will be needed to intervene when the seed/chem cartel now being created unreasonably and unfairly acts against Australian farmers' interests.

Yours sincerely,

Executive Director

[7] http://www.theland.com.au/story/4178547/bayer-monsanto-merger-seeds-fears-of-crop-monopoly/