

**BEFORE COMMISSIONERS APPOINTED BY THE WAIKATO DISTRICT
COUNCIL**

UNDER the Resource Management Act 1991

IN THE MATTER of a further submission on the proposed Waikato District Plan by the
LIFE SCIENCES NETWORK INCORPORATED (further submission no. 1295)

**SUPPLEMENTARY REBUTTAL EVIDENCE OF WILLIAM ROLLESTON
FOR THE LIFE SCIENCES NETWORK INCORPORATED**

19 January 2020

1. INTRODUCTION

1.1. My full name is WILLIAM BLAIR RHODES ROLLESTON. My qualifications and experience are set out in my primary statement of evidence. This statement of supplementary rebuttal evidence is prepared with the assistance of LSN expert witnesses Prof Andrew Allan and Dr Tony Conner.

1.2. This supplementary rebuttal evidence is in addition to our submission of rebuttal evidence to address the evidence of Mr Gavin Fisher which we understand was submitted by GE Free NZ on the 12th January (some 26 days after it was due) and posted on the Waikato District Council website sometime between the 12th and 17th January. It raises additional issues and inaccuracies which have not been addressed in our submission of rebuttal evidence.

1.3. This statement of supplementary rebuttal evidence comments on:

- a. Certification of Organic Farms
- b. Economic Opportunities
- c. The size and impact of the non-GM market
- d. Field Trials and Containment

2. Certification of Organic Farms

- 2.1. In paragraph 4 and 6 of his evidence Mr Fisher states that his organic dairy farm is “Certified Organic to stringent National and International Standards” and quotes the Chinese organic standard (para 6). He states in paragraph 13 of his evidence that GMO contamination would put the cooperative out of business and although he does not state the level of contamination the implication is “any level of contamination” and that “contamination has destroyed farming businesses as they know it [overseas]” (para15).
- 2.2. We would point out that neither of these standards nor the reports he references support Mr Fisher’s assertions.
- 2.3. Both the Chinese and USDA standards prohibit the use of GMO in production systems but neither state that GMO presence will mandate decertification.
- 2.4. Information from the USDA¹ states:

“Any certified organic operation found to use .. GMOs may face enforcement actions, including loss of certification and financial penalties. .. National Organic Program policy states that trace amounts of GMOs don’t automatically mean the farm is in violation of the USDA organic regulations. In these cases, the certifying agent will investigate how the inadvertent presence occurred and recommend how it can be better prevented in the future.”
- 2.5. Nation states and buyers have tolerance levels² or corrective actions when GM derived material is detected. For example the tolerance level before a crop must be labelled as containing GM in Europe is 0.9%³ and Whole Foods Market (a major supermarket chain in the USA which is opposed to GMOs) accept the non GMO project certification⁴ which has a tolerance of 5% GM which is fed to animals⁵.
- 2.6. The self-published report by advocacy group GM Watch quoted in Mr Fisher’s (references 5 and 6) cites no farmers facing loss of organic certification. In addition this report on which Mr Fisher relies has a very small number of respondent farmers (268 from a mail-out of 1,413). Of those who responded only around 18% (circa 49 farmers) had had product (grain, beans or other crop products, milk is not cited) rejected due to the presence of GMOs, 2/3 of these farmers (circa 32 farmers) had had only one truckload rejected. Rejection of a truckload does not equate to loss of certification.
- 2.7. In a 2014 USDA census of organic farmers⁶ only 92 of the 10,705 respondents reported economic losses due to GMOs. In other words 99.99% of organic farmers in the USA reported no economic loss from the presence of GMOs.

¹ US Department of Agriculture. Organic 101: Can GMOs be use in Organic Products?

<https://www.usda.gov/media/blog/2013/05/17/organic-101-can-gmos-be-used-organic-products>

² for GM derived material that has been approved as safe by the regulator

³ European Commission, Summary of Regulation (EC) No 1829/2003 on genetically modified food and feed <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=LEGISSUM:l21154&from=EN>

⁴ Whole Foods information page. <https://www.wholefoodsmarket.com/gmo-labeling>

⁵The Non-GMO Project Standard

<https://www.nongmoproject.org/wp-content/uploads/Non-GMO-Project-Standard-Version-15.pdf>

⁶ United States Department of Agriculture Agricultural Census 2014

https://www.nass.usda.gov/Publications/AgCensus/2012/Online_Resources/Organics/ORGANICS.pdf

3. Economic Opportunities

- 3.1. In paragraph 7 of his evidence Mr Fisher quotes an Adelaide University report (his reference 4) citing opportunities for value add and non-GM labelled food from South Australia.
- 3.2. While listing the previous GM moratorium in South Australia as an asset in respect of non-GM labelled food the report provides no indication that these opportunities would be extinguished if GM crops were to be grown in South Australia.
- 3.3. Following the South Australia Anderson report⁷, which estimated the cost of the GM moratorium to canola growers there at to be up to \$33 million over 2004-18, the South Australia Government lifted its GM moratorium^{8,9}, making it the 7th Australian state to reject a blanket moratorium on the cultivation of GM¹⁰.
- 3.4. It is not axiomatic that GM products sell at a discount to non-GM products. For example GM products Bt Bingal/Eggplant¹¹ in Bangladesh and the Impossible Burger meat¹² in the USA are reported to sell at a premium (28-32% and 400% respectively) to their non GM counterparts.
- 3.5. The major conclusion of the Royal Commission on Genetic Modification was that we should proceed with caution on a case by case basis while preserving opportunities. In its major conclusion the Commission said¹³:

“The concept of regional genetic modification-free zones was raised with the Commission. Such a proposal might be achievable under the Resource Management Act 1991. We discussed this idea extensively but saw difficulty in its implementation. First, it would require widespread acceptance in a given region before it could be put in place without impinging unduly on the rights of those who wished to avail themselves of selected genetic modification technologies. Second, and for the same reasons that we found an “all or nothing” approach to be too inflexible, a blanket ban on applications of genetic modification would be a blunt instrument when a genetically modified form of Crop A might be quite compatible with a non-genetically modified form of Crop B.”

⁷ Anderson K, Independent Review of the South Australian GM Food Crop Moratorium, Report to the South Australian Government 2018

https://www.pir.sa.gov.au/primary_industry/genetically_modified_gm_crops/gm_review

⁸ The South Australia Government Gazette, Adelaide, Thursday, 19th December 2019.

https://governmentgazette.sa.gov.au/sites/default/files/public/documents/gazette/2019/December/2019_063.pdf

⁹ A moratorium will remain in place on Kanagroo Island.

¹⁰ ACT and New South Wales maintain partial moratoria

¹¹ Ahsanuzzaman, and David Zilber-man. “Bt Eggplant in Bangladesh Increases Yields and Farmers’ Incomes, and Reduces Pesticide Use.” ARE Update 22(2) (2018): 5–8. University of California Giannini Foundation of Agricultural Economics.

https://s.giannini.ucop.edu/uploads/giannini_public/34/0f/340f8c28-cf2d-4246-9f87-84fe661568cb/v22n2_4.pdf

¹² Washington Post “Impossible Burger: Here’s what’s really in it”

<https://www.washingtonpost.com/business/2019/10/23/an-impossible-burger-dissected/>

¹³ Royal Commission on Genetic Modification Report, RCGM Chapter 13, paragraph 38

<https://www.mfe.govt.nz/publications/hazards/report-royal-commission-genetic-modification>

4. The size and impact of the non-GM market

- 4.1. In Paragraph 7 of his evidence Mr Fisher states that the non-GMO food “is poised to reach USD 1.1 billion by 2023.”
- 4.2. The figure (USD 1.1 trillion not 1.1 billion) is taken from a market research company’s advertising media release. Even if this large figure were credible it would represent only 0.02 % of the value of agriculture farm gate production (USD 2,413 trillion) in 2016 as estimated by the FAO (United Nations Food and Agriculture Organisation)¹⁴.

5. Field Trials and Containment

- 5.1. In paragraphs 15-22 and paragraph 24 Mr Fisher raises concerns regarding “escapes” from field trials and potential cross contamination from releases.
- 5.2. Mr Fisher fails to mention that these possibilities and their implications will be considered by the EPA should they be relevant to an application. Mr Fisher, as a member of the public has every right and opportunity to put these concerns to the EPA at that time.
- 5.3. “Field trials” are defined and controlled differently under the HSNO Act from overseas. In general overseas jurisdictions consider a crop field trial as a trial where the full production cycle of a plant is considered - plants are grown in the field, allowed to flower and set seed and are then harvested.
- 5.4. In New Zealand the EPA has taken a conservative and precautionary approach and require field tests to be conducted within outdoor enclosures with physical barriers and plants to be prevented from flowering¹⁵.
- 5.5. Any direct comparison between field trials overseas and in New Zealand should be treated with caution.

William Rolleston

19 January 2020

¹⁴ Food and Agriculture Organisation of the United nations, Value of Agriculture Production <http://www.fao.org/faostat/en/#data/QV>

¹⁵ Environmental Protection Authority “Genetically-modified organisms field tests” <https://www.epa.govt.nz/industry-areas/new-organisms/gm-field-tests/>