

13 December 2013

Amy Adams
Freepost Parliament
Private Bag 18 888
Parliament Buildings
Wellington 6160

Dear Amy,

Report 16 – An Overview of Genetic Modification in New Zealand: The first forty years

It is now 40 years since genetic modification technology was first developed, 17 years since the Hazardous Substances and New Organisms legislation was passed and 12 years since the *Report of the Royal Commission on Genetic Modification* was released. The Institute's previous reports on genetic modification in New Zealand were published five years ago: *The History of Genetic Modification in New Zealand (2008)* and *The Review of the Forty-Nine Recommendations of the Royal Commission on Genetic Modification (2008)*.

The attached report, which forms report 16 of our overarching project, *Project 2058*, updates our previous 2008 report on the history of genetic modification in New Zealand. We believe the 2013 report provides a comprehensive up-to-date overview of the policy landscape surrounding genetic modification in New Zealand and as a consequence might provide a useful resource for you in 2014.

Background

The Institute felt it was timely to revisit this area of research to evaluate whether our current regulatory scheme is fit for purpose, particularly in light of the significant institutional change that has taken place in New Zealand over the last five years, continued consumer resistance to GM food globally and the current tensions regarding GM regulations between central and local governments. We found:

- Since New Zealand's first GM outdoor experiment in 1988, 57 outdoor experiments have been undertaken. Of these, 70 per cent have been undertaken by government-funded institutions. These experiments have required significant public investment, but yielded no known commercial benefits for New Zealand. See pages 6 & 69 of the main report and Appendix 9.
- Only two outdoor GM experiments are being undertaken, no commercial company has applied to undertake outdoor GM experiments or releases in the outdoors since 2000, when Monsanto applied but then withdrew its application to field test round-up ready wheat. The two current outdoor experiments are being undertaken by AgResearch and Scion (two Crown Research Institute's), which raises questions as to whether these experiments are being driven by ideology instead of commercial benefits for New Zealand. See Figure 5 on page 61 and Appendix 9.
- New Zealand is no further ahead on evidence-based public policy regarding outdoor use of GMOs than it was when the Royal Commissioners reported their findings in 2001. Since 2001 New Zealand has significantly reduced its ability to collect the strategic information necessary to make informed decisions on genetic modification. Specifically, New Zealand has stopped producing updates on international developments on GM policy (2007); disestablished the Bioethics Council (2009); discontinued MoRST's Futurewatch work programme (2011) and the *Statistics NZ's Bioscience Survey* (2013), and has not reviewed or updated the *2003 Biotechnology Strategy*, which is due to expire this year. See Section 5, pages 30-46.

- Signs of fatigue are present in New Zealand’s regulatory system governing genetic modification in the outdoors – information is neither well-collected nor well-reported. In effect, significant institutional knowledge – and therefore analytical capability and the ability to manage risks – has been lost. See Sections 6 & 7 (pages 47-97) and Appendix 16 (page 83).

Recommendations

This report makes 12 operational recommendations aimed at strengthening the regulatory system and achieving better outcomes. These recommendations cover three areas: (i) improving scrutiny of inputs (such as benefits, costs and risks of applications); (ii) improving alignment throughout the system by making processes more certain and transparent, and (iii) improving the quality of outputs and assurance over those outputs by making clear who is accountable and liable for the approval decision, the management of controls and the clean-up costs (or paying retribution).

In view of the fact that our current outdoor regulatory system is expensive to operate especially since only two experiments are being undertaken (both by CRIs AgResearch and Scion – currently no private businesses in New Zealand are investing in GM outdoor research), that outdoor GMOs pose significant risks to our agriculture-based economy and reputation, and that not one of the 57 outdoor GM experiments that have been undertaken has delivered any known commercial benefits to New Zealand, it seems timely to pause and reflect on what is best for New Zealand going forward.

This is exactly the approach the Royal Commissioners put in place, a pathway forward: ‘Our major conclusion is that New Zealand should keep its options open. It would be unwise to turn our back on the potential advantages on offer, but we should proceed carefully, minimising and managing risks.’ It was an approach designed to move forward cautiously, putting in place a number of new institutions that would be able to independently collect information and knowledge on the benefits, costs and risks for New Zealand. In particular, the Commissioners recognised that the first application for release would be a strategic decision (a watershed decision), one that would require a national assessment. We argue that New Zealand no longer has the capability to make such a decision, with many of the initial checks and balances no longer in place.

In summary, we suggest that a three-stage approach be taken with respect to outdoor GM crops: (i) to buy time by putting in place a moratorium or require a field test before any GMO is released; (ii) to undertake a systemic review, and (iii) to think strategically about whether it is timely to revisit the original question: whether New Zealand should commit to becoming a dedicated GM-free food and fibre producer.

We hope this report, and in particular the appendices, provide a useful context for a strategic conversation on the best way forward. Please do not hesitate to contact me if you have any questions about the report or the work of the Institute.

Yours sincerely



Wendy McGuinness
Chief Executive

Attachments:

Report 16 – An Overview of Genetic Modification in New Zealand: The first forty years (2013)

Report 16 – Appendices