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EVIDENCE GE Free NZ
TOPIC GMO PPC131 / PPC18
SUB# 009
DATE 13/6/2016

Hearing on Far North District Council Proposed Plan Change # 18 &
Whangarei District Council Proposed Plan Change # 131-
Genetically Modified Organisms (PPC18/PPC131)

Submitter **CLAIRE BLEAKLEY**, President GE Free NZ,
On behalf of –
GE FREE NEW ZEALAND IN FOOD AND ENVIRONMENT.
AUCKLAND GE FREE COALITION
Jon Carapiet
Charles Drace
Peta Kirkwood
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DATED: 1 June 2016



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13 June 2016

Hearing Far North District Council PPC18 Whangarei District Council PPC 131

Dear Chair and Committee,

We would like to address some of the Ministers points

1. (slide 2) The RMA principles are to
 - To protect the health of the Community.
 - To safeguard the Environment.
 - To avoid, mitigate adverse effects
 - To meet the needs of future generations.

2. (slide 3) The HSNO is set up to monitor and ensure government oversight in relation to the development, field testing and conditional release conditions as clearly stated in the ministers points 12-17. However, when a full release is given HSNO oversight is unable to place any controls and the RMA and common law are the only avenues communities have resort to.

3. (slide 4) In this the ten year plan looks ahead to possible precautions that might lie ahead in the future. One of the main aspects is emerging problems that might have adverse effects on their communities health and economic livelihood, culture, and environment.

4. We would like to highlight some issues that have arisen in the last five years relating to the unknown, unexpected and unforeseen effects on GMOs in New Zealand and overseas.

5. (slide 5) Regarding to the Ministers reference at para: 22 on the level of protection and real risks, ERMA has approved 7 field trials of which the first was on sheep in the Waikato. This field trial was signed off and privately sold within 1 month of the animals being autoclaved. There were no post monitoring protections put in place. The Whakamaru

field trial is a contaminated site. The ashes are in the pit under the water, The Whakamaru river flows only 150 metres away. No clean up or studies have been conducted to on any effects on the soil or water table or river from leaching.

6. (slide 6) The Ruakura GM animal field test site report the horrific problems that the trial has faced. Yet, the information has been difficult to access and if GE Free NZ had not written this report the knowledge would have been forgotten in the archives.
7. (slide 7). Some of the field trials are held in secret sites, like the brassica one. It took two members of public NGO's to raise concern over the serious breach of flowering GE plant as the monitors and scientist responsible for the trial were on holiday. Whilst a challenge on the approval was in Court the trial was already breaching its conditions.
8. (slide 8) This breach was in spite of the assurances the Minister gives on the imposition of appropriate monitoring conditions on approval holders. So it is a little difficult to have unresounding confidence in her assurances that HSNO comprehensively covers and protects in *a "comprehensive and consistent national-level framework applies that is specifically tailored towards protecting the environment and the health and safety of people and communities from the unique adverse effects of GMOs" (MFEpt. 2).*
9. (slide 9) In the last five years mounting evidence of harm is arising from GMO release. 15 years since the first untested, GMO was commercialised.
10. (slide 10,11,12,13) Cumulative, permanent, adverse effects are on animal and human health linked to GMO's and pesticides. Increasingly Weed Resistance, Insect tolerance, pesticide harm are all affecting negatively on farmers crops.
11. (slide 14) In the increasing climate changes it is the RMA councils responsibility to protect its communities land and water. HSNO does not have the expertise to specifically decide for each region when it releases a GMO. It is unfair to talk about "good neighbourliness" when

your lifetimes effort is destroyed by an adversity of GM contamination as in Steve Marsh's experience.

12.(slide 15) A recent survey among Organic Farmers in the US was released the findings of contamination, crop rejection, costs on yield from delaying planting and regulatory testing, auditing added to a loss of up to \$50.000. Our members do not believe that is affordable.

13.(slide16) The Rodale report found Organic systems were

- nearly three times more profitable than conventional systems.
- organic wheat netting \$835USD/ac/yr.
- showed resilience and stability, with higher yields in drought years compared to both GM and conventional farming systems.

14.(slide 17) This mounting evidence of permanent, cumulative adverse effects is mounting each year making the

- Long term risks to flora and fauna unknown
- Financial risks to local bodies unacceptable.
- Financial risks to Landowners unacceptable.
- Environmental effects are unacceptable

15.So the uncertainty and unknown risks are must be dealt with in a precautionary manner. It is pleasing that the council plan is talking a precautionary approach which protects farmers and allows them to carry on farming.


16.We Fully support the precautionary approach to the land use of GMO's in the FNDC PPC 18 and WDC PPC 131 rules, policies and objectives.


Tēnā koutou, tēnā koutou, tēnā tātou katoa

Claire Bleakley on behalf of

Jon Carapiet, Michael Trott, Peta Kirkwood, Charles Drace.


Ngaire Hart, our expert witness will talk on her concerns over the unknown effects on native bees.

 **Submission**
 GE Free NZ in Food and Environment
 FNDC PPC18 / WDC PPC131.




Claire Bleakley
 President GE Free NZ in Food and Environment


Joint presentation – AGEFC, Jon Carapiet,
 Charles Drace, Peta Kirkwood, Michael Trott.


 **Outline**
Tēnā tātou katoa.

- ❖ RMA and HSNO
- ❖ GMO Effects
 - ❖ laboratory studies,
 - ❖ on farm use
 - ❖ community effects
- ❖ GMO threats to farmers livelihoods



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 **Principles and Purposes**
 HSNO & RMA



- ❖ To protect the health of the Community.
- ❖ To safeguard the Environment.
 - ❖ life supporting capacity of air, water, soil and ecosystems
- ❖ To avoid, mitigate adverse effects
- ❖ To meet the needs of future generations.

RMA 5

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 **RMA responsibility once released from HSNO.**

2A(1). The Organism is not a new Organism if-
 (b) the organism is a genetically modified organism

(2) An organism ceases to be a new organism when approval is given for release or release from containment.


HSNO Amendment 2003.


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 **RMA 3- Effects**

- (a) any positive or adverse effect;
- (b) any temporary or permanent effect;
- (c) any past, present, or future effect;
- (d) any cumulative effect which arises over time or in combination with other effects—
 regardless of the scale, intensity, duration, or frequency of the effect
- (e) any potential effect of high probability;
- (f) any potential effect of low probability, which has a high potential impact.

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 Now RMA Responsibility
 10 years on - GMO contamination.
 Is it safe to farm or build on?




3N2, R210 (pan 2) x 2

Whakamaru Carcass Pit and GE sheep ashes (2014)

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GE Animals in New Zealand



- ❖ Deformities congenital and heritable.
 - ❖ Internal organs missing,
 - ❖ Uterine And ovarian rupture
 - ❖ Hormonal and metabolic problems
 - ❖ heart abnormalities
 - ❖ limbs imperfectly formed or fused together.
- ❖ Failure to create some GM lines.
- ❖ 0-7% live birth for embryo transfer.
- ❖ F1-F2 generations sterile

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Failure of compliance - SCION.



State of perimeter fence November 2007

"MAF is still investigating the cause of these holes, and has not ruled out the possibility these were man-made for publicity purposes".

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February 2008

19 GM *Pinus radiata* cut down, 17 expressing reproductive altering genes and 2 controls

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Bt Cauliflower were flowering breaching their conditions. When we were in court




7/03/08 One month later 20/04/08

ERMA control remove plants when heads were formed

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December 21st 2008



Bt Kale pcd 4cm

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Our bees are dying.





Expert witness : Dr. Ngaire Hart –
There is little known about native bees importance for pollination.
And we know that there is nothing about the impact of GMO's on them.

A female native bee, *Lasioglossum sordidum*, covered in pollen

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What are the unexpected unknown, long term effects?




Harvesting the corn crop, tall green plants are roundup resistant weeds

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Risks – 15 years after commercial release

Conducted 10 years after GM corn commercialisation.



Seralini 2 year Feeding Study (2014)

- ❖ Severe liver and kidney damage
- ❖ Endocrine Tumours
- ❖ Pituitary Tumours

Monsanto 90-day feeding trial (2004)

- ❖ Liver and kidney damage.


Not biologically meaningful

GMO + RoundUp

Seralini, G. E., et al (2014) Republished study: long-term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize *Environmental Sciences Europe*, 26(1), 1-14

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RMA 3 – Husbandry Effects




Argentina is the world's biggest user of RoundUp the herbicide used to control weeds in genetically modified (GM) crops.

Daily Mail May 20th 2016

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RMA 3 – Animal Effects

Danish farmer Ib Pedersen's piglets




Sows gave birth to piglets with extreme deformities after eating GM soy.

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RMA 3 – Human effects

Agrichemical Companies Have Destroyed Argentina's Farming Towns With Soaring Cancer Rates And Quadrupling Birth Defects

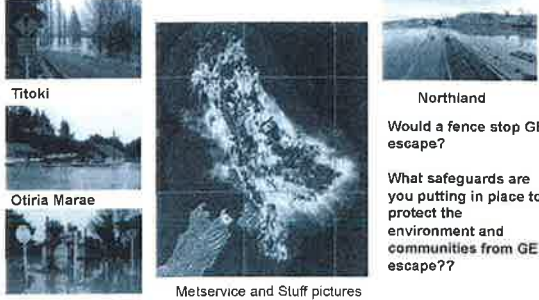


Increase in birth defects: maternal exposure to GE & pesticides

- ❖ 1997 - 19:10,000
- ❖ 2001 - 28:10,000
- ❖ 2008 - 85:10,000
- ❖ Limb reduction,
- ❖ Urogenital anomalies,
- ❖ Orofacial clefts, Ocular
- ❖ Heart conditions,
- ❖ CNS defects
- ❖ Spina bifida
- ❖ Childhood leukemia

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Storm Flooding



Titoki

Otiria Marae

Moerawa

Northland

Would a fence stop GE escape?

What safeguards are you putting in place to protect the environment and communities from GE escape??

Metservice and Stuff pictures

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RMA 3 – Meaning of effects

GM Contamination Organic farmer survey 2012

- ❖ 1:3 farmers contaminated
- ❖ > 17% contamination
- ❖ 52% loads rejected
- ❖ \$20,000 av. loss
- ❖ 67% delayed planting
- ❖ \$25,000 av. loss from delay
- ❖ \$4000 av. management cost.
- ❖ \$ 50,000 av. total loss.



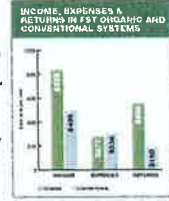
Precautionary Approach

Organic can feed the World. Now let us get on with feeding the World WELL.



FROM FST, we have found that:

- 1 The organic systems were nearly three times as profitable than the conventional systems. The average net return for the organic systems was \$1550/acre/year versus just \$500/acre/year for the conventional systems.
- 2 Even without a price premium, the organic systems are competitive with the conventional systems. Marginally lower input costs make the organic systems economically competitive with the conventional system, even at conventional pricing.
- 3 The most profitable grain crop was the organically grown wheat netting \$225/acre/year.
- 4 No 00 conventional corn was the least profitable crop netting just \$27/acre/year.



Summary



- ❖ Long term risks to flora and fauna unknown
- ❖ Financial risks to local bodies unacceptable.
- ❖ Financial risks to Landowners unacceptable.
- ❖ Environmental effects are unacceptable



GE Free Aotearoa NZ



Fully support the precautionary approach to the land use of GMO's in the FNDC PPC 18 and WDC PPC 131 rules, policies and objectives.

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