

05 January 2016

Dear Commissioner/Minister

## Gene-editing of plants and animals and regulation in the EU

We write regarding attempts by the genetic engineering industry to exempt products that are engineered using new "gene editing" techniques (such as CRISPR) from the EU regulations which cover genetically modified organisms (GMOs). If such products are exempted from the regulations, companies could bypass requirements to provide environmental and food safety risk assessments and to label foods produced using gene edited crops or animals, with serious negative consequences.

"Gene-editing" techniques are being applied to farm animals, fish and insects, as well as to plants - including food crops - and trees. Many of these products are highly controversial and could have significant environmental impacts: for example, mass releases of geneedited insects, escapes of gene-edited fish, or the planting of gene-edited trees could affect whole ecosystems and lead to the loss of some species and/or the establishment of others in new areas. New "gene drive" techniques are being developed using gene editing, with the aim of spreading genetically engineered traits widely through wild populations of insects, plants or animals, including fish. Even apparently benign applications – such as introducing disease-resistant species - can have adverse consequences, such as the evolution of more virulent viruses in response, or the creation of silent reservoirs of disease which may wipe out non-resistant wild animals or plants. The use of gene-editing to limit reproductive capacity - producing sterile or semi-sterile organisms - can reduce the risk of establishment of gene-edited plants or animals, but can also introduce new risks such as the potential to wipe out wild relatives. Without regulation, such products could be released and marketed commercially without any risk assessment of their impacts on the environment or human health.

Public concern regarding GMOs in the food chain remains high, and any attempt to bypass labelling requirements is also likely to be viewed extremely negatively. Products such as gene-edited meat, fish or vegetables require labelling to allow consumer choice, and traceability to allow recalls by retailers should food safety concerns arise. Lack of labelling can lead to loss of consumer trust in the market as a whole: this has led, for example, to statements by many US retailers that they will not stock AquaBounty's GM salmon, which is not required to be labelled in the United States. Lack of labelling will also damage exports, as consumers overseas may prefer to avoid all foods from certain countries or regions if they do not know how they have been produced. Impacts on exports were recognised as a major issue during the debate surrounding the 2014 New Zealand High Court judgment which ruled that two new genetic engineering techniques (ZFN and TALENs) should not have been

exempted from regulation there.<sup>1,2</sup> Following this ruling, the New Zealand Government has decided not to deregulate a raft of emerging new GM techniques. These will continue to be covered by existing law on GMOs, with any use being subject to Environmental Protection Authority approval and public consultation.<sup>3</sup>

In short, if companies are allowed to bypass requirements to provide environmental and food safety risk assessments and to label foods produced using gene edited crops or animals, there could be significant negative impacts on the environment, human and animal health, and consumer confidence, including the loss of important export markets.

We urge you to consider these important issues thoroughly during the current debate about whether GMOs produced using new techniques such as gene editing should be regulated.

Please do not hesitate to contact us if you require further information.

Yours sincerely,

Dr Helen Wallace Director

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<sup>&</sup>lt;sup>1</sup> Court quashes genetic engineering decision. Farmers Weekly New Zealand. 2014. http://farmersweekly.co.nz/article/court-quashes-genetic-engineering-decision?p=6

<sup>&</sup>lt;sup>2</sup> The Sustainability Council of New Zealand Trust v. The Environmental Protection
Authority in the High Court Of New Zealand. Judgment. 20<sup>th</sup> May 2014. <a href="http://www.epa.govt.nz/search-databases/HSNO%20Application%20Register%20Documents/APP201381\_The%20Sustainability%20Council%20of%20New%20Zealand%20Trust%20v%20The%20Environmental%20Prot.pdf">http://www.epa.govt.nz/search-databases/HSNO%20Application%20Register%20Documents/APP201381\_The%20Sustainability%20Council%20of%20New%20Zealand%20Trust%20v%20The%20Environmental%20Prot.pdf</a>

<sup>&</sup>lt;sup>3</sup> Government's Move Keeps New GMOs Regulated. Sustainability Council of New Zealand. 1<sup>st</sup> November 2015. http://www.sustainabilitynz.org/governments-move-keeps-new-gmos-regulated/