



New Plant Breeding Techniques?

In recent years large agrochemical corporations such as Dow, Syngenta, Bayer and Monsanto and other players have been investing in a suite of risky new genetic modification (GM) techniques, which industry refers to collectively as 'New Plant Breeding Techniques' or 'gene editing'. Industry is arguing that these techniques are much more precise than older genetic engineering techniques - or even that they are not really genetic engineering at all - in order to attempt to circumvent regulation and public resistance to GMOs.

There is a global push to deregulate these techniques

The GM giants are currently making a concerted push to have these emergent techniques escape GM laws in the United States, Europe and Australia. Industry is arguing that these techniques - which include oligo-directed mutagenesis (ODM) and site-directed nucleases (SDNs) such as zinc-finger nucleases (ZFN) and CRISPR - only result in small predictable changes to the genome and are therefore much more precise than earlier genetic engineering techniques.

Interestingly, this is exactly the same argument they used when GM crops were originally introduced - and is equally untrue for these techniques.

Unfortunately, our regulators - the Office of the Gene Technology Regulator (OGTR) and Food Standards Australia New Zealand (FSANZ) - seem all too ready to allow products derived from these risky new techniques to go untested and unlabelled into our food chain.

These techniques pose unknown risks and need to be regulated

Austrian government agencies are among the few globally to consider the biosafety risks posed by new GM techniques. Their conclusion, over three separate, high-level reviews of the biosafety risks, is that there is insufficient knowledge regarding the risks posed by these techniques. On this basis, they argue that products derived from new GM techniques should be regulated in the same way as those created using older GM techniques and require a comprehensive case-by-case risk assessment.

The Norwegian Environment and Development Agencies also recently commissioned a review of these techniques. This concluded that further biosafety research needs to be performed before these techniques are commercialised.





Our regulators are failing us

The Australian Gene Technology Act defines gene technology as “any technique for the modification of genes or other genetic material”. This would clearly include new GM techniques unless they were specifically exempted in the regulations. Unfortunately, our regulators - the Office of the Gene Technology Regulator (OGTR) and Food Standards Australia New Zealand (FSANZ) - are already working closely with industry to do just that.

On its website the OGTR professes a commitment to “accountability: through open and transparent processes”. However, documents obtained by Friends of the Earth under Freedom of Information laws reveal that the assistant Health Minister Fiona Nash gave policy approval for drafting amendments to the Gene Technology Regulations on 8th July 2015 and that the agency has already issued drafting instructions to deregulate a number of these new GM techniques. This has occurred without any public input or consultation. Furthermore, it appears the agency has misled the Senate - claiming in Senate Estimates that drafting instructions have not yet been issued.

In 2012 and 2013 FSANZ convened an expert panel - comprised almost entirely of genetic engineers with gene technology patents - to look at whether these new GM techniques should be considered genetic engineering. Not surprisingly, the panel concluded that the majority of these techniques did not pose a significant food safety concerns and that they either be deregulated or undergo a simplified form of food safety assessment - conclusions strongly disputed by government agencies overseas. Furthermore, FSANZ appears to have deliberately misled the Senate by claiming it “is not aware that any members of the expert panel have potential conflicts of interest.” Based on subsequent statements, it is clear that FSANZ was aware of these potential conflicts of interest

It's time our regulators stopped letting industry write the rules for them and put public health and our environment before private profit.

What needs to happen?

Friends of the Earth is calling for:

- These new GM techniques and the products derived from them to be subject to a comprehensive case-by-case risk assessment, including full molecular characterisation and independent safety testing to minimise any potential risks to human health and the environment;
- All products derived from new GM techniques to be labelled to protect choice for farmers, producers and consumers;
- The precautionary principle to be enshrined in both the Gene Technology Act and the Food Standards Australia New Zealand Act, given the experimental nature of these technologies and the risks associated with them;
- The Government to impose strict liability on all dealings with GMOs licensed by the OGTR, so that liability for GM contamination and the resultant losses and costs rests fully on the licensees and the owners of GM patents;
- A moratorium on the commercialisation of these new GM techniques until our regulatory system for GMOs is adapted to deal with the potential risks posed by them.

Find out more

For more information find our report: *GM 2.0: Australian regulators engineering the truth* on our website (<http://emergingtech.foe.org.au>) or contact:

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