The Year that was 2018

Dear Member & Friends,

Happy Christmas and thank you all for your support in keeping New Zealand GE Free for another year.

We have had an extremely productive year ..

- supporting our Philippine friends in their struggle to keep GE Rice from being distributed for non profit.

- a successful tour with Jonathan Latham highlighting the concerns that scientists have with the new GE technologies. Many thanks to those who drove us, put us up with accommodation and gave us wonderful kai.

- in October we made a very strong presentation to the Northland Regional Council to introduce a GE Free precautionary controls in their Regional Plan.

We have had strong collaboration with our GE Free alliance colleagues in Australia and the US. We met some wonderful people this year who all help keep GE free NZ going - thank you! We appreciate it so much. Saying that we are now reminding you the membership donations and fees are due for the year. (see end of newsletter).

This country is so beautiful and our mahi has shown us that we must keep NZ GE Free.

Kind regards

Claire Bleakley, President

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Federated farmers drop legal action around genetically modified organisms

https://goo.gl/baLte3

Source: Michael Hayward, Stuff.co.nz 27 May 2018

Federated Farmers have withdrawn legal challenges against councils with policies against Genetically Modified Organisms, which has been a hot topic in communities such as Whangerei. (file photo)

Federated Farmers are setting aside legal actions against regional councils over the regulation of genetically modified organisms (GMO), but will "keep assessing" the issue in the future.

The stoush was over whether regional councils could decide to go GMO-free in their regional plans, despite there being a central government branch in charge of GMO regulation. In New Zealand, it is illegal to import, develop, field test or release a genetically modified organism (GMO) without approval from the Environmental Protection Authority (EPA).

The courts have found local authorities have the right to set their own GMO policies under the Resource Management Act. Federated Farmers have made legal challenges against the resource management plans of several councils, including Auckland, Whangerei, the Far North and Hastings, which was the first council in New Zealand to become GMO-free in 2015.

National president Katie Milne confirmed Federated Farmers had pulled out of all cases they were challenging, but would "just keep assessing it" in the future.

She said it was "not our highest priority at this point", in reference to Mycoplasma Bovis which is spreading through farms across the country, leading to the slaughter of tens of thousands of infected cows. The Government will on Monday decide whether it will use slaughter or management to tackle the disease going forward.

Milne said the challenges had been a "principle thing" about the appropriateness of having both the EPA and regional councils "double dipping" on GMO regulation, questioning whether regional councils had sufficient resources to devote to those decisions and why they should "go through all the same things on whether it's safe to have in their district when it's already done by the government"

"If its been okayed at a central level, to say otherwise at a different level is a big imposition to put on people, and you don't know what the technology may have to offer in the future."

Soil and Health national council member Marion Thomson said the withdrawal of legal challenges meant "a bit of a reprieve" from a constant fight.

Thomson said there was a "real potential for serious economic loss to regions exporting their products and attracting tourism under New Zealand's clean, green brand if GMO land use were permitted", and "livelihoods could be lost"

"Being able to state your product is completely free of GMOs is quite a high premium on the world market."

One of the legal challenges was against the Whangerei District Council, which prohibits the release of GMO's and has made GMO field trials a discretionary activity.

GE Free Northland chair Zelka Grammar in a statement said the withdrawal of legal challenges was a "significant milestone in our fight to protect Northland's existing valuable GE Free status".

It was in the interest of all New Zealand farmers and primary producers to allow councils to proceed with GMO policies, Grammar said.

What does GE-free status mean to brand New Zealand?

https://goo.gl/ceQDW1

Source: Jon Carapiet, pureadvantage.org 6 April 2018

New Zealand regulations on the commercial release of genetically modified organisms (GMO) have so far served us well, at least in terms of avoiding the negative effects that have been experienced overseas. These negatives include increased use of toxic chemicals and the desperate measures of 'stacking' chemical-resistance genes in crops to battle rapid development of resistance in pests.

In the context of consumer demand for non-GMO products, it is to our advantage that so far, despite a series of botched field trials and news headlines about animal deformities, there has been no commercial release of GMO crops or animals in New Zealand.

There has always been a place in New Zealand for contained and ethical genetic research. This has helped to inform advances in marker assisted breeding and medical science. At the same time preserving our Genetically Engineered (GE) / GMO-free production systems supports the shared value in our export reputation for clean, safe food, and the New Zealand Story.

Whether you are a farmer, manufacturer, exporter or just one of the many people who want to be able to buy safe, high quality food this is a wake-up call. We may be about to be sold out.

The decades-long international GE debate has resulted in consumers and communities of people demanding regulation and labelling of GMOs. Remember the early 2000's saw some of the largest protest marches in New Zealand history. The recommendations of The Royal Commission on Genetic Modification supported 'proceed with caution' but also protection of GE-free production and mandatory labelling of GMOs.

In New Zealand food safety and labelling is overseen by Food Standards Australia New Zealand and environmental protection overseen by our Environmental Protection Authority.

However there is pressure from the biotechnology industry to abandon regulation of products modified using the latest genetic engineering techniques: Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR).

It's not clear what CRISPR products have already left the lab. One problem with CRISPR is that it may be possible for amateurs to use it in any basement or garage. This adds to the need for CRISPR products to be regulated. Just because anyone can potentially drive dangerously doesn't mean we abandon licensing, safety testing or the rules of the road.

Another argument used to justify a blanket exemption for CRISPR products is that the genetic changes can be very hard to detect. What is really needed is more sensitive tests and analysis. After all, in the realm of genetics, little things count.

Independent scientists from Physicians and Scientists for Global Responsibility warn that CRISPR is being hyped with the same promises of 'precision and accuracy' made for other forms of genetic engineering. However they warn that there is still the risk of unintended genetic effects from these modifications.

So there is a big problem in any attempt to avoid regulation by pretending that the products of CRISPR are not GMO. This would allow novel untested and unmonitored CRISPR products to sidestep testing and labelling, the very opposite of what consumers want. This is what now appears to be the situation in the US already.

It is very concerning that Australia's gene regulators are consulting on the idea of deregulating the products of CRISPR, and currently receiving submissions. New Zealand authorities have announced they are doing the same, with submissions urgently needed before 12 April.

It is vital to the public interest in New Zealand and Australia that we do not allow regulations to be altered to allow CRISPR products to escape the Gene Technology Act 2000 which defines gene technology as "any technique for the modification of genes or other genetic material". That includes CRISPR.

Far from dropping regulation, CRISPR, like other GM foods should be subject to improved pre-market safety testing. New Zealand has built its economy as a food exporting nation, and a clean and green tourism destination. To back that up and as a point of differentiation it serves us to have a best practice world class food testing, monitoring and labelling system. Independent scientists have identified the flaws in current regulation and more effective ways of safety testing.

It is vital for brand New Zealand to maintain the highest food safety and monitoring standards including products from CRISPR.

It waits to be seen if trade deals such as the Trans Pacific Partnership Agreement (TPPA) are used to oppose national policies for labelling GM products or to keep them out of our agricultural system. Companies promoting GMOs could follow the tobacco industry in fighting restrictions on their trade. This would deny consumers the right to choose non-GMO foods, just as hiding CRISPR products would do.

It would also undermine brand New Zealand's competitive advantage as a producer of GE-free, safe, clean and ethically produced food.

Consumers are buying our products because there is increasing lack of trust in the safety standards of some other countries of food origin, the potential for contamination and further environmental degradation.

Industry monitor FoodNavigator.com reports that a consumer study by Health Focus International spanning 16 major consumer markets found that 87 percent of consumers globally think non-GMO foods are 'somewhat', or 'a lot' healthier.

Right or wrong in terms of the debate about evidence of harm we should respect the old adage that the customer is always right.

GE-Free is aligned to other important growth-trends in consumers seeing the value in provenance, authenticity, sustainability, animal welfare, and ethical production. Agro-ecology and regenerative agriculture is non toxic, sustainable and an opportunity to combat climate change and a far better fit with the New Zealand Story.

The non-GMO sector is rapidly growing in the USA, even as industry enables the release of the never-browning GE-apples and fast-growing GE-salmon. Herein lies an opportunity for New Zealand producers to actively distinguish our non-GMO products.

In a recent move by some US dairy producers to label their milk as being produced without GMO feed. This is a timely signal to Fonterra to seize a similar brand opportunity for New Zealand. It's also a reminder that New Zealand's reputation already has its Achilles heel in the form of imported GE-animal feed that is mostly being used below the consumer radar.

Far from abandoning regulation and labelling of CRISPR and other GM products, recent events show the need for regulation to be strengthened. FSANZ's embarrassing political approval of "Golden Rice" without any safety tests or proof the rice actually works to help the malnourished, is a wake-up call that such products need to be subject to scrutiny and comprehensive molecular analysis and safety testing that is independent of the company making the GMO.

The EPA's rejection of the findings of the World Health Organisation that glyphosate is likely to cause cancer in humans has also called the EPA's actions into question. Publishing in the New Zealand Medical Journal, the scientists, led by Professor Jeroen Douwes, of the Centre for Public Health Research at Massey University in Wellington say the methodology of the EPA report was not of a sufficient standard to overturn the earlier findings. Glyphosate-tolerant GE crops are heavily sprayed with the chemical.

New Zealand has a market advantage that we must leverage by taking a middle path that protects the shared value in both our brand story and the benefits from ethical science. This needs to be a path to genuine sustainability and one that embraces the emerging vision of restorative agriculture. To help us navigate this path we must listen to our customers wanting GM-free food, and heed the advice of the independent scientific community holding the agrochemical industry and regulatory authorities to account.

Is it time to re-open the genetic modification debate?

https://goo.gl/zyevDP

Source: Pat Deavoll, Stuff.co.nz 25 Nov 2018

Fifteen years ago, a nationwide protest attracting 15,000 marchers in Auckland alone, brought the issue of genetically modified organisms to the forefront of the Kiwi psyche.

The protesters armed themselves with the slogan "Keep Your Hands Off Our Genes", and the most hardcore tramped from Northland to Parliament in a "GE-free hikoi " to drop off 92,000 signatures of dissent.

The protests were sparked by journalist Nicky Hager's book *Seeds of Distrust* which told of an accidental release of genetically modified (GM) corn seed sown into paddocks; illegal under New Zealand law.

The upshot was the formation of the Royal Commission on Genetic Modification to establish a way forward for the issue.

The act was reviewed in 2015, but nothing new came of this.

It's time for a shake-up of the issue, say the country's science and agri-industry leaders.

Journalist Nicky Hager's book Seeds of Distrust sparked the anti-GM protests 15 years ago, which culminated in a march on parliament.

In a recent RNZ podcast, the Government's outgoing science adviser, Sir Peter Gluckman, said: "We're long overdue for a serious chat about genetic engineering. The issue needs re-addressing because there have been significant developments over the past 15 years".

Genetic modification means taking a gene from one plant and inserting it into another. After 30 years of use, the evidence of the safety of GM is clear, he says.

"These are crude tools compared to what can be done with gene editing, such as the Crispr technique which can regulate a switch on the gene to turn it on or off. Nature does this all the time so it's a "small modification," Gluckman says.

Jon Carapiet, the national spokesman for GE-Free New Zealand, stands by the opposite point of view.

The Government's outgoing chief science adviser, Peter Gluckman says: "We're long overdue for a serious chat about genetic engineering."

"It's not about for or against. There is no ban on GMO's in New Zealand. There are controls and regulations and these have been fought over long and hard for two decades by people responding to the push to have deregulated genetic engineering," Carapiet says.

"You have to have oversights, you have to look at what you have done and whether any unintentional changes may have happened."

The people who are pushing for GMO's to be deregulated are benefiting from a situation where there is a socialised risk, not strict liability. Industries where there is liability moderate their risk taking. It forces them to be a bit more imaginative with the alternatives, Carapiet says.

"A lot of the claim around genetic engineering as a solution is partly driven by the desire to patent organisms which can be licensed. It is also driven by deliberate ignorance to practical proven alternatives such as climate-smart agri-ecology. A systems approach to issues around agriculture rather than a magic bullet."

Pure Hawke's Bay, which was instrumental in the move to make the Hastings District Council adopt a 10-year moratorium on genetically modified crops, says business would suffer if any changes were allowed and they argue that not enough is known about the GM technologies and their effects.

Its chairman, Bruno Chambers, says there are other options to investigate in order to lower emissions, which will not require GM.

"We're not anti-science and if something came along that was genetically modified that was really going to offer huge benefits to a number of farms, then we'd be looking at it with an open mind, but it always comes back to the markets."

Chambers believes there would be an impact on the market if New Zealand crops were no longer GM-free.

"People are just starting to realise how important it is for the New Zealand brand, it's a critical part of our selling position."

Andrew Allan, professor of plant biology at Auckland University says ignorance of the facts of GM poses an economic risk to New Zealand.

"Public outrage and political pressure have so far kept New Zealand safe from transgenics (plants and animals with added DNA). Our clean green image is worth a lot of money but well-published research has shown it likely won't be affected by growing GM crops," Allan says.

"And it's hard to measure the cost of a lost opportunity. Around the world, transgenics are now 15 per cent of agricultural value. In New Zealand, such high-value plants may have to compete with cows for land use. These may have been good for the environment – we will never know. There hasn't been a choice."

And consumers don't have the choice, even if the new product proves to be more nutritious, he says.

Andrew Allan, professor of plant biology at Auckland University says research shows that New Zealand's clean green image is unlikely to be affected by growing GM crops.

"Without the ability to use gene-editing, New Zealand will be prevented from growing food that is better for the environment and our industries will fall behind our trading partner and competitors."

AgResearch has developed a ryegrass that promises a leap in productivity. The catch is it's genetically modified.

The ryegrass has been shown in AgResearch's laboratories to grow up to 50 per cent faster than conventional ryegrass, to be able to store more energy for better animal growth, to be more resistant to drought, and to produce up to 23 per cent less methane from livestock.

AgResearch Grasslands principal plant biotechnology scientist Greg Bryan says the ryegrass could transform farming by reducing its environmental footprint and improving animal productivity.

Such is the importance of ryegrass to the New Zealand economy, AgResearch estimates the new grass could raise GDP by up to $5 billion, or about 2 per cent.

But that is unlikely to happen any day soon because of public, industry and political division over GM. This could hand some of New Zealand's major rivals in global meat and milk commodity markets a substantial competitive advantage.

The pastroral industry's $25 million funding of GM ryegrass trials is a slap in the face for farmers dealing with the M.bovis cattle disease outbreak, says Jon Carapiet, the national spokesman for GE-Free New Zealand.

"One of the things that irritate me is this constant push for GE rye-grass," Carapiet says.

Over 10 years ago DairyNZ did some research using mixed forages and found this was able to reduce methane emissions, retain productivity and the well-being of the animals. It's available now. It's not promoted, he says.

The pursuit of a GE magic bullet is diverting vital funding for development of alternative forage crops with proven benefits.

The pastoral industry is funding the GM ryegrass trials to the sum of $25 million. This is a slap in the face for farmers who are facing the dire situation of culling their animals due to the M.bovis outbreak, Carapiet says.

It is disappointing that funders, the Ministry of Business, Innovation and Enterprise and Dairy NZ, have deliberately sidelined and ignored the proven qualities of New Zealand's own valuable research, he says.

Genetic modification means taking a gene from one plant and inserting it into another.

"AgResearch must be called to account. The GM ryegrass project is a costly miscalculation and has not improved the quality and resilience of the agricultural system for farmers."

There is a new agricultural-based green revolution beginning around the world through gene editing, Allan says. New types of rice, wheat, tomato, maize, soybean and other crops created through this technology are already growing in paddocks in America and beyond.

"These enhanced products include wheat with a 30 per cent increase in grain weight and tomatoes with a five-fold increase in vitamin A levels.

"The issue, however, is that these crops rely on directed changes to DNA. This is despite the fact that the changes made are exactly the same as that created by sunlight and a lot less than that from traditional breeding.

"This categorisation makes it near impossible for our country to join this green revolution. Worse still, the value we gain from our plant-based economy is under threat from far better crops being developed quickly around the world."

Environment Minister David Parker has no intention of changing the legislation.

AgResearch principal scientist Greg Bryan works with the genetically enhanced ryegrass which it estimates could be worth $5 billion to the economy.

"[The] Government takes a precautionary approach. People who want to make an application to release the GMO can. These are then dealt with by the regulator and we think the law is fit for purpose.

"I'd have to be satisfied there was a need to change the law, and I'm not satisfied."

He also highlights the trade benefits in keeping crops GM-free.

"Sometimes they might be overstated, but none the less they are real."

If there are to be any changes in the use of GM, Parker says the Government will first be looking at pest control, rather than agriculture.

Carapiet says in the United States they have deregulation but in Europe, they take a much more cautious approach. New Zealand is aligned with Europe and with the majority of the consumer sentiment, he says.

"The idea of not regulating it, not having that oversight, having some sort of wild west, is not something that sits happily with any consumer, especially in the premium markets where we are selling our products.

Dairy NZ used a mixed pasture to compare the milk production, nitrogen loss and pasture performance against a standard ryegrass and clover pasture.

"Most of the markets we are focusing on are looking for those macro trends. Where does the product come from and how is it made? What are the products that have gone into the animals feed, are they organic?

"What sort of organic pest management has there been or has the product been sprayed traditionally? The premium markets are going for the former."

Its time to revisit this technology says Allan.

"Where is New Zealand heading? We are sat behind the fence. The HSNO Act (Hazardous Substances and New Organisms Act) fear and misunderstanding and our clean green image stop us going beyond. I think that unfortunately without a mature discussion we will remain there."

Do Kiwis still care about GE free?

https://goo.gl/HHGWbj

Source: RNZ Audio Podcast (listen: 27mins) 3 June 2018

The road to New Zealand becoming GE Free was hard fought. In 2003, thousands marched to show their opposition to Genetically Engineered foods and animals. New Zealand now has some of the strictest laws around genetic engineering in the world. But as technology changes do we still care about it? Jon Carapiet is national spokesman for GE-Free NZ

Northland communities urge Northland Regional Council to protect the region's valuable GE free status

https://goo.gl/NN9P9J

Source: GEFree Northland 2 Nov 2018

Gene edited organisms are GMOs and are unacceptable in Northland

More than one hundred submissions (lodged in response to the Northland Regional Council's proposed new Regional Plan) strongly back alignment with Auckland and Northland District Council plans that already contain provisions and policies created for the purpose of protectiing the Northern peninsula's valuable GE-Free status.

At the Whangarei hearings that took place earlier this week, the NRC was urged by all submittors (other than Federated Farmers of NZ) to include strong precautionary and prohibitive

GMO provisions into the new Regional Plan and give effect to the precautionary GMO policy direction of the operative "Regional Policy Statement" (1).

Whangarei and Far North District Councils, local Iwi and hapu, Physicians & Scientists for Responsible Genetics, the Auckland GE Free Coalition, the Soil & Health Association, Northland businesses and many farmers, growers and other ratepayers seeking similar relief, provided compelling evidence to the NRC (including that of Expert Witnesses) in support of a precautionary and prohibitive approach to the risks of outdoor use of GE/GMOs.

Such an approach is necessary given the risks of GMOs to our biosecurity, existing GE free primary producers and their valuable enterprises, our economy, food sovereignty, and the public health.

Expert witnesses included Professor Jack Heinemann, economist Dr. John Small, marine biologist Dr. Shaw Mead, and Dr Benjamin Pittman who spoke separately on various scientific, environmental, economic, risk management, and other issues. Dr. Pittman provided detailed Evidence regarding the cultural values of Tai Tokerau mana whenua and the ban on any outdoor use of GE/GMOs already in place by Tai Tokerau Iwi authorities (for all of their respective rohe, Bombay hills north to Cape Reinga).

Dr. Mead provided Expert Evidence on the risks of outdoor GE experiments and field trials on land to waterways and the Coastal Marine Area, stressing the importance of sustainable integrated management of the total region, including on a catchment level, as any GMO pollution from the land would be highly likely to contaminate soils, waterways, and the CMA.

Farmers, foresters, horticulturists and beekeepers spoke about their concerns about likely adverse environmental impacts of outdoor use of GMOs and economic harm to their valuable existing GE free enterprises. As documented overseas, outdoor use of GE/GMO's has increased the use of herbicides, has failed to deliver on promises to elevate crop yields, led to contamination of seeds, soils, and waterways, has created invasive herbicide resistant "super weeds" and resulted in numerous lawsuits (where those primary producers contaminated by GMOs are then subjected to legal action by multinationals or companies with proprietary rights on GE seeds).

Federated Farmers of NZ was the only further submitter to the NRC PRPN, opposing all the other submissions lodged on the GMO issue, requesting that they be "disallowed" in entirety. FFNZ continues to oppose the good work of local councils to create a much needed tier of local protection against the risks of outdoor use of GE/GMOs, despite this additional layer of protection benefitting their own members as well as serious deficiencies in the national regulation under the Hazardous Substances and New Organisms (HSNO) Act.

Deficiencies in HSNO (as identified by Local Government NZ and a growing number of councils since 2003) include inadequate liability provisions and no mandatory requirement for the EPA to take a precautionary approach to outdoor GE/GMO applications.

"We thank Whangarei and Far North District Councils and all those who helped make such a compelling case to our local Regional Council, by providing planning, scientific, economic, environmental, cultural, and other evidence of the potentially harmful and irreversible impacts of outdoor GE experiments or releases in the northern Isthmus. We urge the NRC to act on its duty of care to its constituents and obligation to manage natural and finite resources in a truly

sustainable manner, in keeping with the relevant sections of the Resource Management Act (RMA)," said Martin Robinson, spokesman GE Free Tai Tokerau.

"We acknowledge the work of WDC, FNDC and Auckland Council, who have taken action on a local level to protect ratepayers and the environment already. They understand the economic opportunities for local primary producers, including in the Coastal Marine Area, of a GE free region, and how crippling GM contamination could be for our high-value food and forestry producers. We note that both global certification bodies (FSC and PEFC) do not allow any GE/GMO trees in certified forests (2)***, due to the serious ecological risks, market aversion, and their adherence to the precautionary principle," said Robinson.

"Northland region's valuable agricultural, horticultural, apiculture and forestry sector (and "Northland, naturally") brand must be protected. Our community group would like to see strong precautionary and prohibitive GE/GMO provisions, policies, and objectives in the new Regional Plan for both land and the Coastal Marine Area. Our valuable enterprises, access to key markets and premiums must be protected from the risks of outdoor use of GMOs. Some of the world's most celebrated food regions- Tuscany, Provence, Bordeaux- are official GM Free Zones. That's the club we want to be part of and Northland is well placed geographically to achieve this distinction," said Linda Grammer, chairperson, GE Free Tai Tokerau.

Dr Jonathan Lundgren - Reforming food production

https://goo.gl/7QjXZo

Source: Kim Hill interview, RadioNZ 9 July 2018

(Listen 48min)

Dr Jonathan Lundgren received his PhD in Entomology from the University of Illinois in 2004 and was a professional pesticide evaluator with USDA for 11 years.

He is in Aotearoa next week for a workshop on Conservation Biological Control of Invertebrate Pests, hosted by the Bio-Protection Research Centre.

Listen to full interview - 48 mins)

A "paradigm shift" in agriculture can massively boost farmers' profits and crop diversity, curb pests, and eliminate the need for tilling, pesticides and herbicides, scientist Jonathan Lundgren claims.

Dr Lundgren received the Presidential Early Career Award for Science and Engineering from Barack Obama in 2015 during his 11-year stint at the US Department of Agriculture.

An agroecologist and entomologist, he later filed a whistleblower suit against the agency for suppressing his research on pesticides.

Now he's the director of non-profit regenerative agriculture research centre Ecdysis Foundation, and chief executive of the Blue Dasher Farm in South Dakota.

Regenerative agriculture, he says, flies in the face of conventional farming wisdom.

"I'm an entomologist by training - and we found that the insecticide-treated conventional corn fields had 10 times more insect pests than the regenerative fields that had never seen insecticide use.

"That's not supposed to happen."

Instead of using a research farm, his earlier research on regenerative farming took a different approach, surveying and sampling several variables - biodiversity, soil quality, yield and profit on the best regenerative-style farms in four states in the northern US.

That was then compared to top conventional farms nearby.

Fewer pests was not the only surprising finding: regenerative fields had 78 percent higher profits over traditional corn production systems despite 29 percent lower yields.

"Farming for yield is not farming for profit," Lundgren says.

"Especially in the US at the moment, corn is farmed at a loss, an economic loss: it's being subsidised by government in order to keep farmers producing.

"So they get great yields, but they spend so much money to produce those yields that they're not making the profits that they should be."

No till - 'I make money off my weeds'

Dr Lundgren says industrialisation aimed to keep people from starving by using technology to produce food, "but we just plateaued out".

"We've degraded our natural resource base so much now that we're in trouble if we don't start to figure out how we grow food, while regrowing that natural resource base that farming needs."

The first way to do that is not tilling the soil.

"The soil is a living thing and people don't realise that - they think of it as dirt ... and tillage, what it ends up doing is it kills the soil, the biology in the soil, and then it prohibits that soil from growing again."

He says a group of Russians came to visit Blue Dasher farm and were surprised.

"They said 'boy, you've got some weeds out there' and I looked out at the field and I turned to them and I said, 'I don't see any weeds, I see forage'.

"If you assume that you've got two poisons and that those are your only two options 'well this poison's less bad than that other poison' … I guess, 'boy, i'll pick the less bad poison'. But the reality is that is not true: those are not your only two options.

"This is the common perception - that you've got two ways of killing weeds: tilling and herbicides. That's a really a narrow view. Altering crop rotations; including perenniality within your rotation; including livestock - I make money off of my weeds."

"Why would I lose money by trying to add inputs to control this perceived weed problem when I could raise livestock and take meat off of that piece of ground? So changing your perception is really a fundamental aspect of regenerative systems."

Second principle: Never leave bare soil

Dr Lundgren says the way to manage weeds without tillage and herbicides is by putting a cover crop down so that the soil is not left bare.

"The energy for a farm does not come from a jug - it comes from the sun - and the only way you capture that energy from the sun is through plants.

"You have to cover that soil all the time, that feeds the biology that's down there - be it microbial, be it insect life, be it fungi.

"It's holding your soil down, it's feeding your soil biology, it's eliminating your need for pesticides, it's eliminating your need for typical fertilisers, and then in the spring what you end up doing is you've got biomass that's accumulated with that cover crop. You send the animals in."

He says the cover crop out-competes weeds and then as the animals reduce that plant population farmers can then no-till sow another crop.

"Whn they fostered that life, the plants were healthier; the plants were able to resist those pests more easily; it provided habitat for things like predators that ended up eating a lot of the crop pests; it made the plants more difficult for the pests to find."

Maximising profits

So how does not tilling or using poisons lead to big profits? Dr Lundgren says it's a combination of things.

"They spend a lot less on seed: right now in the US most of the corn seed is genetically modified to resist insect pests, as well as to make them tolerant to the herbicide glyphosate … and so it's very expensive that additional cost of seed.

"Also these regenerative farmers didn't have to buy fertilisers or at least they spent a lot less on it, and that made it a lot more cost effective to be producing."

He says premiums from selling the product as organic was also part of the reason for the 79 percent profit difference, but many regenerative farmers were not organic - they were simply marketing smarter.

"In the US a lot of grain is simply grown and then sold off to the local co-op … who then markets the product to wherever they're going to market and ships it off to wherever they're going to ship it.

"[Regenerative farmers] would just be growing things differently, or locally marketing their grain products so that more of the profits stayed on the farm."

Those bigger profits for farmers do come with a price - lower yields - but Dr Lundgren says that's not such a big problem.

"Food insecurity is not a production problem, food insecurity is a distribution problem. We're already producing enough food in excess of what we need to feed the world right now.

"In the US, we devote about 10 percent of the … terrestrial land surface to corn and soy beans in the lower 48 states - 10 percent of our land - we eat, I think, 2 percents of our soy beans and 8 percent of our corn.

"The rest is burned up in our cars, the rest is fed to beef that evolved to eat grass not grain, and so the system is really broken."

Regenerative or organic - what's the difference?

Dr Lundgren still uses herbicides on his farm - for now.

"I'm trying to get off of those herbicides as quickly as I can - our farm is fairly new, we've had three growing seasons - but not because fundamentally herbicides … are the devil.

"It's because I don't want to spend money.

"I don't use insecticides, I don't use fungicides, I don't use chemical fertilisers."

He says the approach to using herbicides is also very different.

"We're not using them as an eradication campaign [which] flies in the face of everything we know as ecologists - eradication does not work."

He says that while about 30 percent of the regenerative farmers they studied for his paper were farming organically, the 'organic' label is meaningless - because the soil is not necessarily healthy.

"I've seen horrible organic operations that I wouldn't eat the product of, and I've seen really good conventional operations where the nutrient level is really high."

Why risk unforeseen costs?

Genetic modification is another tool in many modern farmers' arsenals that Dr Lundgren says is unnecessary.

"I think they're a tool, but I think they're trying to solve a symptom of a problem and frankly I just don't need 'em."

He says it's hard to know what the benefits are versus unforeseen costs.

"The longer that I have pursued risk assessment, the more clear that … fundamentally we cannot see all ends when we're trying to introduce these chemistries out into the environment."

That's also true of some pesticides - the products may have been tested but the long-term effects are hard to predict until they've been tested - or used - in the long term.

"Glyphosate was presumed safe for a long time and now we're almost daily just inundated with the problems associated with this herbicide and it's showing up everywhere.

"What it does is it chelates micronutrients down in the soil to make them unbioavailable to the plants.

"That disrupts the plant's ability to accumulate these things; it also necessitates nutrient additions in the form of chemical fertilisers; it also has direct toxicity that we didn't foresee before and it in part - maybe the largest part of the way that glyphosate ends up hurting larger organisms - is that it disrupts microbial communities."

Neonicotinoids and USDA whistleblowing

Dr Lundgren says the same principle extends to neonicotinoids, it was his work this area that caused such a controversy with the US Department of Agriuclture.

He found neonicotinoid traces in milkweed, on which the monarch butterfly relies, was ravaging monarch populations.

The monarch butterfly in North America is critically threatened, and is at 10 percent of its historic population, he says.

"It wasn't a surprising study ... insecticides killed monarchs, this isn't earth shattering news right? But it was turning up in the milkweed, and it wasn't supposed to be there.

"So we went through all of the correct protocols, I got all of the approvals that I needed and then we got interviewed by one of the larger public radio stations and that interview got a lot of press.

"Suddenly they [USDA] said 'by the way you didn't have all of the approvals in place'. I'm like 'what, what are you talking about? we've been through everything'.

"I was doing my job and now I was being punished for it."

He says the USDA later did a survey of its roughly 2000 scientists and found about 10 percent experienced similar suppression.

"So, I mean, 200 scientists had their work suppressed for political reasons - for reasons other than scientific merit. And that should not happen, but it happens all the time."

'Science does not provide truth'

Dr Lundgren says it's an example of how science can be easily manipulated.

"The idea that science is conducted without personal belief systems, the idea that science is not affected by personality is absolutely and completely false.

"The questions that we ask are affected by our belief system.

"Science does not provide truth ... it provides a framework for assessing."

Despite this, he says his work has not become less scientific since leaving the USDA.

"Absolutely not, our science is some of the top in the world. We publish in some of the top scientific journals still and we have tremendous impact over our research as a result - the graduate students that we have are second to none."

However, he says the way the USDA has used science has not been to innovate or reinvent agriculture, but rather to prop up the same system that simply doesn't work.

"Rather than using science to reinvent our food system, we've used science for so long to simply maintain a broken paradigm."

Mass extinction and neonicotinoids in NZ

Wasps cost New Zealand millions of dollars a year in agricultural losses and ecological damage.

While he's not keen on neonicotinoids in farming, he says he understands the arguments of those who want to use them to combat invasive wasp species in New Zealand.

"Invasive species and your invasive wasps problem, that is a tough nut to crack and I do concede that.

"Ecosystems are in such a state of flux at the moment aren't they? I mean we're introducing species … and redistributing species at a planetary scale that planet earth has never, never experienced anything like it before."

He doesn't seem to have a ready answer to the problem, but isn't confident neonicotinoids are one either.

"To think that introducing a chemical pesticide is somehow going to tip the balance? I don't know.

"We're not going to eradicate wasps from New Zealand. In the case of farming, what I'm arguing is that they're not as needed as were once thought.

"Who can drive through Iowa and the sea of corn and soy beans and cows - 99 percent of the land surface or something like this of that state has been transformed into three species.

Iowa State University reports more than 85 percent of the state's total acreage is farmed, largely soy and corn fields.

Iowa State University reports more than 85 percent of the state's total acreage is farmed, largely soy and corn fields. Photo: Public Domain / Wikimedia Commons

"Who can drive through that and say that that's okay? And our land grant university system and our academic research system is the one that produced it.

"The status quo is simply not good enough anymore. This planet's facing some really serious challenges right now and if we don't do something about it - thinking outside of the box - the planet will be okay but we won't be on it."

GE Free NZ Press Releases for 2018

Presented by:
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Golden Rice Approval For New Zealand - A Big Mistake

http://press.gefree.org.nz/press/20180223.htm 23/02/2018

"FSANZ have made a big mistake and an independent investigation of the decision is warranted. The organisation's credibility is called into question in an unprecedented way,"

Officials have failed consumers by approving Golden Rice in a flawed and unprecedented decision.

The absence of any benefit for New Zealand consumers has been ignored and there is growing international concern about the decision.

There is no requirement to label the rice as being "pro-Vitamin A", setting a dangerous precedent for other nutriceutical foods which will leave consumers in the dark about nutrient changes in food.

The absence of any independent safety testing for unintended consequences should have led Food Standards Australia New Zealand (FSANZ) to decline the application.

"FSANZ have made a big mistake and an independent investigation of the decision is warranted. The organisation's credibility is called into question in an unprecedented way," said Jon Carapiet, spokesman for GE-Free NZ (in food and environment).

"Why did Food Safety Minister Damien O'Conner not request a review in the absence of safety studies of GM rice?"

Food Safety Minister Damien O'Conner has failed in his duty to the New Zealand public by not taking action to have the approval reviewed. FSANZ must be called to account for a deeply flawed decision.

Appeal Sought Against GE 'Golden Rice'

http://press.gefree.org.nz/press/20180225.htm 25/02/2018

"There is a total absence of data on the food when eaten. A pre-market assessment has not been done and significant differences occurred in the GE rice proteins and nutrients, it is difficult to see how the GE rice can be deemed safe and wholesome, when no research has been done on its safety."

GE Free NZ is considering legal avenues to appeal the approval of GE rice by FSANZ and the Minister for Food Safety.

GE Free NZ met with the Ministry of Primary Industries (MPI) to raise concerns over the total absence of data relating to safety of the GE rice for consumers. Ministry staff replied that any concerns would need to be addressed to the Minister, as their assessment had been done.

The FSANZ's GM rice decision [1] misleads the public, in saying the application is "Based on the available evidence, including detailed studies provided by the Applicant, … is considered to be as safe and wholesome as food derived from other commercial rice lines…approval of such foods is contingent on completion of a comprehensive pre-market safety assessment."

The 'detailed studies based on the available evidence' cited by FSANZ were conducted by the applicants, GMO manufacturers Dow and Syngenta. The information was unpublished, and in the many thousand pages of detailed data not one study addressed the product's effect on health and welfare.

"There is a total absence of data on the food when eaten," said Claire Bleakley, president of GE-Free NZ. "A pre-market assessment has not been done and significant differences occurred in the GE rice proteins and nutrients, it is difficult to see how the GE rice can be deemed safe and wholesome, when no research has been done on its safety."

In previous assessments FSANZ were provided short term feeding studies indicating that GE food could cause kidney and liver damage as well as depress the immune system [2] [3] [4]. FSANZ now does not require any feeding studies.

FSANZ regulators are also giving false assurances that the GE rice will be labelled. The requirement for labels has many exceptions.

"It is wrong for FSANZ to approve GE foods, when MPI does not carry out monitoring for GM contamination due to lack of funding."

Widespread community concern and the public interest warrant an appeal. GE-Free NZ is seeking advice for action in regard to a regulatory body failing in its mission to protect the health of the public.

International Stand against FSANZ Approval of Golden Rice

http://press.gefree.org.nz/press/20180416.htm 16/04/2018

Unfortunately FSANZ has not provided the scientific evidence that can support GE rice safety. We hope that the Philippine regulators are not as lax and will protect the most vulnerable in their country by ensuring that long term safety studies, along the EU and Codex guidelines, are carried out

The Stop Golden Rice! International Campaign Conference, 2018" was held in the Philippines. The Stop Golden Rice! Network is an alliance of more than 30 organizations from India, Bangladesh, Sri Lanka, Philippines, Vietnam, Taiwan, Thailand and Indonesia with allies from China, Australia, New Zealand and Canada. Delegates from health, subsistence and organic farmers, scientists, artists, consumers, women and children rights gathered to echo their united stand to resist the adoption of GMOs and Golden Rice.[1]

"We have long asserted that we don't need GMOs which are intertwined with the use of toxic pesticides and herbicides. We have our own traditional rice varieties and sustainable ways of farming. We have also established and developed our diversified and integrated farms which is our source of nutritious food, pride and freedom." explains Ramon Oliva, a MASIPAG organic farmer and community leader of SIKWAL-GMO, a local peasant alliance.

The International conference heard that Australia/New Zealand Food Standards (FSANZ) approval of GR2E rice, 'in case of contamination' to 'avoid trade issues' [2], would have negative impacts on indigenous farmers all over Asia. Experts from India, the Philippines and Indonesia all provided published studies raising concerns over the safety of the rice, casting doubt FSANZ decision-making, and its independence

As the Filipino law stands, the FSANZ safety assessment can be used to open the door for approval to plant GE rice in many of the Asian rice growing countries.

The developer of the GM rice, the International Rice Research Institute (IRRI), receives support from Syngenta, Dow and the Bill and Melinda Gates Foundation and is donating the "GR2E" rice on humanitarian grounds but Syngenta owns the commercial patent. IRRI cannot be sued and so farmers will have no recourse when the indigenous rice is contaminated.

"The humanitarian excuse is a farce. There are 150,000 native rice varieties all adapted to their special climates, but GE rice will only pollute and then lead to the destruction of indigenous rice varieties," said Claire Bleakley, president of GE Free NZ, referring to stunted growth and low yield results of Golden Rice hybrid with India's traditional Swarna rice variety.

Delegates discussed the concerns of peasants and farmers over the dangers posed by the GE rice to the environment, livelihoods of subsistence farmers, children and women. About 5 billion people rely on the peasant food web for their food

Whilst New Zealand consumers have a choice whether to buy rice or not, in Asian countries rice is a staple food eaten at every meal, morning and afternoon tea. The impacts on the small farmers will be devastating, but contamination would also affect the commercial lines and these would be subject to patent charges.

Dr Debal Deb a farmer and ecologist spoke on the diverse, accessible, nutritionally superior beta-carotene sources from forests and farms. The daily vitamin A requirement for an adult is provided by one medium carrot equivalent to 4kg of cooked freshly harvested GR2E rice. He said the GE rice must be thoroughly tested to be proven safe. The only feeding study cited by FSANZ, (Tang et al), was unethical and unsound and the paper had been retracted in 2012 [3][4][5].

A meeting statement , facilitated by a the National Anti-Poverty Commission (NAPC), a government body, summarised the Conference "Rice is Life and the soul of our Asian heritage… We cannot allow a handful of corporations who poison our land and deny control over our seeds take hold of our food systems, especially rice – the backbone of Asia's agriculture."

"Unfortunately FSANZ has not provided the scientific evidence that can support GE rice safety." said Claire Bleakley

" We hope that the Philippine regulators are not as lax and will protect the most vulnerable in their country by ensuring that long term safety studies, along the EU and Codex guidelines, are carried out."

Border Control for Gene Kits Urgently Needed

http://press.gefree.org.nz/press/20180519.htm 19/05/2018

To protect New Zealanders from the cavalier use and creation of potentially dangerous homemade gene edited bio viruses, MPI must ensure strict border controls. Mandatory declaration and other measures are needed to restrict the spread of gene kits.

Gene editing kits are creating a new biosecurity and public health risk for New Zealand that needs to be addressed.

GE Free NZ is calling for the government to introduce controls on the importation of gene editing kits.

The New York Times made an investigation that found young adults are buying online gene editing kits to 'play around with genetic engineering at home'.

In one case a biotech executive injected himself with an edited treatment for H.I.V, but instead of killing the virus the gene increased the viral load. [1]

To protect New Zealanders from the cavalier use and creation of potentially dangerous home made gene edited bio viruses, MPI must ensure strict border controls. Mandatory declaration and other measures are needed to restrict the spread of gene kits.

New Zealand was the first country to address the new gene editing technologies. In 2010, Sustainability Council of New Zealand Trust challenged the EPA's approval for the use of new gene editing technologies. [2]

The EPA ignored its own staff, and The Sustainability Council challenged the Authority's interpretation of the HSNO Act. The court ruled the new technologies using laboratory manipulation of DNA that had developed after 1996, have to be regulated.

“The risk is also to Australia which must also ensure the health and safety of Australians by enacting legislation that recognises the dangers of unregulated gene editing technologies” said Jon Carapiet GE Free NZ spokesperson

Australia Office of Gene Technology is currently in the third phase review of its gene technology scheme and consulting on the best way to “Protect the health and safety of people, and to protect the environment, by identifying risks posed by or as a result of gene technology…” [3]

New Zealand now has the most advanced legislation regarding the new gene editing technologies that would be a good model for Australia in respect to trade issues and safety.

Wellington Council Urged to Join Other Councils with GMO Rules

http://press.gefree.org.nz/press/20180607.htm 07/06/2018

GE Free NZ will be presenting a submission asking the Greater Wellington Regional Council to adopt a precautionary approach to the management of GMOs by: prohibiting the outdoor release of a GMO; and making outdoor field-testing a discretionary activity;

GE Free NZ will be presenting a submission asking the Greater Wellington Regional Council to adopt a precautionary approach to the management of GMOs by:
· prohibiting the outdoor release of a GMO; and
· making outdoor field-testing a discretionary activity;

GE Free NZ is concerned about the lack of objectives, policies and rules governing the use of GMO's in the proposed Natural Resources Plan of the Greater Wellington Regional Council.

This omission fails to reflect community and farmers concerns, including many whose livelihood relies on arable farming, horticulture and forestry.

"Other councils have already considered the risks posed to their regions given mounting evidence of unknown and unexpected biosecurity risks posed by GMO activities. Wellington needs to follow that lead," said Claire Bleakley, president of GE Free NZ.

"There are also concerns how the Regional Council should approach the significant sites, natural and farmed, that would be affected by GMO activities within the region."

The Remutaka and Tararua and all Forest Parks, are significant recreational and tourist attraction for the whole region. The Wairarapa Moana is the most significant wetland in the south of the North Island and is a sacred water body for Maori. The "Macaskill Lakes" (Te Marua) are vital for providing potable water for the Greater Wellington Region. These sites would be jeopardized by the release of GMOs to the environment.

The Far North District Council, Whangarei District Council, Hastings District Council, Auckland Unitary Council, and Northland Regional Councils have all reached decisions to contain precautionary provisions regarding GMOs in their local planning documents.

Federated Farmers of New Zealand challenged these provisions in the Environment court, the High Court and eventually the Appeal Court. All courts ruled that local councils have the power under the Resource Management Act 1991 ("RMA") to control the use of GMOs via their local planning instruments.

In the Environment Court decision, Judge Newhook noted that the HSNO Act "does not regulate the potential adverse effects of GMOs beyond approving them for release", and does not provide for integrated management. [3]

The RMA, on the other hand, enables authorities to provide for the use and protection of resources "in a fully integrated fashion, taking into account regional needs for spatial management that might differ around the country for many reasons".[4]

"GE Free NZ hopes that the GWRC will adopt these precautionary recommendations. It is particularly important to achieve continuity in the management of GMOs through regional and district policy and plans throughout New Zealand," said Claire Bleakley

The submission will be heard on Friday 8 June at 11.15 Westpac Stadium

Calls for an Independent Bioethics Council to be Reestablished

http://press.gefree.org.nz/press/20180628.htm 28/06/2018

"Our concern is that serious and complex issues are being presented in a simplistic and inherently misleading way. The complexities of gene editing have been turned into a series of cartoons, and the absence of any information on the risks is a major error. It appears they are trying to create a patina of simplicity which is misleading for the general public."

The Royal Society of New Zealand (RSNZ) - Te Apārangi is encouraging New Zealanders to submit their views on the uses of gene editing in the area of Health, Human embryos, and Pest control [1]

Questions are being asked about whether the Royal Society is the most appropriate body to consult on the ethics and morals of gene editing. Gene Editing is a new technology that uses a variety of genetically engineered enzyme technologies like CRISPA/Cas, TALENs, Zinc Finger Nuclease and dsRNA.

The phrasing of the RSNZ questions appear to be promoting gene editing as the latest fad for shaping health outcomes and pest management.

"Our concern is that serious and complex issues are being presented in a simplistic and inherently misleading way," said Jon Carapiet, spokesman for GE-Free NZ.

Further concerns have been raised by the involvement of foreign organisations seeking to promote novel genetic engineering techniques.

The Defense Advanced Research Projects Agency (DARPA) is an agency of the United States Department of Defense responsible for the development of emerging technologies for use by the military [2]. They sought permission to trial gene edited rats for release on an off shore island. The Minister for Conservation, Eugenie Sage, turned this down [3].

There are many risks associated with this technology and the ability to control the downsides of this technology are incalculable. If these animals are released they cannot be recalled.

“The consultation by the Royal Society has been very biased,” said Claire Bleakley, president of GE Free NZ.

“The complexities of gene editing have been turned into a series of cartoons, and the absence of any information on the risks is a major error. It appears they are trying to create a patina of simplicity which is misleading for the general public.”

Gene editing of embryos is a form of eugenics. The responsibility for upholding the fundamental integrity of human life and preserving the economic livelihoods and health of New Zealanders must be clearly defined by regulation in the laboratory and prohibiting the use of all genetic engineering technologies in the open environment.

Send your feedback to Dr Marc Rands (marc.rands@royalsociety.org.nz)

Is Air Zealand disregarding regulations for food and passenger safety?

http://press.gefree.org.nz/press/20180706.htm 28/06/2018

Offering it on an aircraft sidelines the approval framework required of consumer food safety. Whilst we applaud the move to vegan diets on Air New Zealand flights, the question needs to be asked as to why Air NZ would put itself in the position of ignoring other delicious innovative plant-based non-GE burgers?

Air New Zealand is selling a genetically engineered vegan burger on its Los Angeles to Auckland flights. [1] However, its legality has been questioned as it has escaped food safety regulation. [2]

The GE burger has been developed and tested by Impossible Foods and contains fake GE blood so the “burger sizzles”. The fake blood is derived from yeast Pichia pastoris genetically engineered with a Soy Leghemoglobin Protein (SLH). [3]

Documents accessed by Friend of the Earth under the Freedom of Information Act (FOIA) state that the “FDA believes that the arguments presented, individually and collectively, do not establish the safety of SLH for consumption, nor do they point to a general recognition of safety.” The FDA also noted that soybean is one of the most common allergenic foods. [4]

“Offering it on an aircraft sidelines the approval framework required of consumer food safety," said Claire Bleakley, President of GE-Free NZ (in food and environment).[5]

As well as doubts over the credibility of sustainability claims made for the burger, the US Food and Drug Administration (FDA) had declined to approve key GE ingredients and warns that warns there may be unexpected allergens.

“It is concerning that Air New Zealand is using its passengers as guinea pigs to trial the burger,” said Claire Bleakley, “The consumer preference for plant based eating is based on ethical and genuine sustainability reasons.”

It is not known if the passengers have even been informed of the unapproved ingredients and potential allergenic effects that might occur or if the crew been properly trained to recognise and deal with an allergic reaction.

“The GE product has failed to meet the regulatory safety standards and the decision to sell it makes Air New Zealand responsible if harm occurs,” said Mrs. Bleakley

“Whilst we applaud the move to vegan diets on Air New Zealand flights, the question needs to be asked as to why Air NZ would put itself in the position of ignoring other delicious innovative plant-based non-GE burgers, fitting the New Zealand Brand?”[6]

GE Ryegrass Trials Results An Illusion

http://press.gefree.org.nz/press/20180717.htm 17/07/2018

There is an opportunity cost in pouring money into GE that deprives farmers of real needed help. Since the idea of GE ryegrass was first conceived advantages provided by quality mixed forages and non-GM High metabolic energy rye grasses with proven safety and performance have been disregarded,"

GE ryegrass is still at the starting line, after unimpressive results from US field trials. Approval was given in April 2017, for a one-year trial in the US state of Missouri, but AgResearch costly GE ryegrass field trial has not been able to measure any significant outcomes.

AgResearch's GM rye grass has been 'in development” since 2001 and was intended to be commercially available in 2004. More recently trials were undertaken in Australia in 2012, the outcome is confidential. After 17 years of promises for GE Rye grass the benefits remain just supposition, with no proper safety evaluation of impacts on the environment, or animal health.

US farmers are fearful that pollen from the unregulated GE grass trials might contaminate their farms, in the same way the escape from field trials of unapproved Roundup resistant GM grass is afflicting farmers as it spreads uncontrolled across Oregon. [1]

GE ryegrass cannot address the need for smarter farm practices. The pursuit of a GE 'magic bullet' is diverting vital funding for development of alternative forage crops with proven benefits. [2] The New Zealand pastoral industry is funding the GM ryegrass trials to the sum of $25 million. This is a slap in the face for farmers who are facing the dire situation of culling their animals due to the Mycoplasma bovis outbreak. It is disappointing that funders - Ministry of Business, Innovation and Enterprise (MBIE) and Dairy NZ - have deliberately sidelined and ignored the proven qualities of NZ own valuable research. [3]

"There is an opportunity cost in pouring money into GE that deprives farmers of real needed help," said Claire Bleakley, president of GE-Free NZ (in food and environment).

"Since the idea of GE ryegrass was first conceived advantages provided by quality mixed forages and non-GM High metabolic energy rye grasses with proven safety and performance have been disregarded," said Claire Bleakley.

"AgResearch must be called to account. The GM ryegrass project is a costly miscalculation and has not improved the quality and resilience of the agricultural system for farmers."

A systems approach based on mixed forage plants and sustainable practices is the best way to add value and resilience that lives up to the reputation of Brand New Zealand that benefits farmers.

EU Decision on Gene Editing Technologies Supports NZ legislation

http://press.gefree.org.nz/press/20180802.htm 2/8/2018

Organisations and individuals concerned about the risks posed by GMOs applaud the ruling by the European Court of Justice that the new advanced gene-editing technologies, called ‘GMO 2.0’, are genetically modified organisms and should go through the same regulatory process.

Organizations and individuals concerned about the risks posed by GMOs applaud the ruling by the European Court of Justice that the new advanced gene-editing technologies, called ‘GMO 2.0’, are genetically modified organisms and should go through the same regulatory process. The warning from scientists at the UK Sanger Institute of unintended effects from CRISPR-Cas9 supports the decision to regulate gene editing in Europe. [1]

New scientific research confirms that all genetic modification technologies can have much more damaging health effects than has been believed.

Dr. I. M. Zdziarski at the University of Adelaide and colleagues have just published a study that shows the stomachs of rats who eat GMOs have alterations in their gut lining. [3] The study conducted on triple stacked corn that contained two types of insecticide resistant transgenes and one herbicide tolerant transgene. This study’s findings support earlier research on pigs and rats and the earth-shaking study by Dr. Arpad Puzstai, who found that the process of genetically modifying a plant had the potential to cause stomach alterations with serious health implications.

Since Sir Peter Gluckman called for the GE debate to be reopened there, voices have called for such gene editing technologies to bypass the regulatory process. These new GE technologies are intended for use on humans, animals, insects, and plant.

“These are dangerous suggestions, as the Zdziarski study shows, ten years after the genetically engineered corn was commercialised and entered the food chain and we still have no real evidence that the GMOs are safe,” said Jon Carapiet, national spokesperson for GE Free NZ “To introduce these advanced GE technologies without regulation would be irresponsible and negligent.

New Zealand legislation leads the way through the Hazardous Substances and New Organisms Act, which sets out clear guidelines regarding advanced GE technologies devised since 1998. This means that the Environmental Protection Authority (EPA) must approve any organism that uses gene-editing tools to alter the cells’ natural traits before such an organism can be released into the environment.

“New Zealand must ensure that it maintains its regulation as these gene editing technologies are a new and unproven genetic engineering procedure that have no history of safe use” said Mr. Carapiet.

Government Urged to Review Glyphosate Based Herbicides

http://press.gefree.org.nz/press/20180813.htm 13/08/2018

New Zealand must find alternative non-pesticide solutions to farming issues. Agroecology and organic methods have proved that people can farm profitably and sustainably without harmful synthetic pesticides like Roundup

It is time to reevaluate the evidence and how Glyphosate Based Herbicides (GBH's) are used in light of a ground breaking court case finding harm from the glyphosate based herbicide Roundup products.

On 10 August 2018, the jury in San Francisco's Superior Court of California found that Monsanto was liable to pay non-Hodgkin’s lymphoma sufferer, Dewayne Johnson, US $289 million dollars for negligence. The court found that Roundup Pro and Ranger Pro has potential risks, that were known and scientifically proven; that it presented a substantial danger to those using the products, but these were not disclosed by Monsanto. Part of the payment is for punitive damages, for failing to warn users, ignoring the research evidence and covering up the adverse health effects of Roundup products and their adjuvants. [1]

Discovery documents for Monsanto highlighted the orchestrated campaign that was conducted to vilify scientists whose research on glyphosate found harm. One of these organisations was the International Agency for Cancer Research (IARC) whose thorough research found that that glyphosate was probable carcinogen, classifying it as a 2A carcinogen. [2]

The court case brought out the dark underbelly of Monsanto and large corporations who buy silence and influence regulators and researchers who rely on their funding.

"In the US, corporates are liable to being sued if their product is dangerous, however in New Zealand the cost is socialised and if it is regulated as safe then the government guarantees costs. So we all pay for the damages of a poisons use," said Claire Bleakley, President of GE-Free NZ.

Despite the mounting evidence that GBH's, including Monsanto's Roundup, cause serous health conditions such as non-Hodgkin's lymphoma, the NZ Environmental Protection Authority (EPA) has previously found that there is no harm from glyphosate.[3]

GE-free NZ is asking the government to immediately re assess all GBH's and conduct a survey of farmers and workers health to see if there is a link to their cancer and the use of GBH's.

Also we have 'Roundup-ready' genetically engineered corn, canola, cotton, sugar, potatoes and soy products entering the food chain that have been doused in Round up. A major ingredient of the controversial 'impossible' GE burger protein is possibly made from Roundup ready potatoes.

"We urge the government to immediately review the safety of Glyphosate Based Herbicides (GBH)." said Claire Bleakley "New Zealand must find alternative non-pesticide solutions to farming issues. Agroecology and organic methods have proved that people can farm profitably and sustainably without harmful synthetic pesticides like Roundup,"

Visiting Expert Speaks on Gene Technology For Food, Agriculture and Biosafety

http://press.gefree.org.nz/press/20180830.htm 30/08/2018

Dr. Latham will talk on the politics of food and address issues of internal culture of decision makers, and the legal framework that is often fraught with industry influences opposing precautionary decision-making, even when the science clearly points to risks.

The future impact of gene editing in New Zealand will be a hot topic during the upcoming tour of Dr. Jonathan Latham Sept 1-Sept 9.

"Food Matters Aotearoa is hosting Dr Latham in New Zealand directly after his tour of Australia and Hawaii" said Claire Bleakley, tour organiser "There is documented evidence of the unpredictability of genetic engineering but also mounting pressure for new gene technologies to be used with no regulatory supervision and this is an opportunity to hear about the implications they could have on our health and environment".

He will be speaking in Featherston, Wellington, Palmerston North, Raglan, Hamilton, Tauranga, Auckland and Hastings.

Dr. Latham will talk on the politics of food and address issues of internal culture of decision makers, and the legal framework that is often fraught with industry influences opposing precautionary decision-making, even when the science clearly points to danger.

Jonathan R Latham, PhD is a prominent international advocate for public interest science. He is co-founder and Executive Director of the Bioscience Resource Project and the Editor of Independent Science News and Director of the Poison Papers project which publicizes documents of the chemical industry and its regulators.

Dr Latham holds a Masters degree in Crop Genetics and a PhD in Plant Virology. He worked at the Department of Genetics in the University of Wisconsin, Madison, USA. He has published scientific papers in disciplines as diverse as plant ecology, and toxicology.

Regulate new GE techniques or Quit Trans Tasman Food Authority

http://press.gefree.org.nz/press/20180918.htm 18/9/2018

Powerful, clear scientific evidence shows the potential risks that new GM techniques pose."A Wild West of genetic tinkering cannot be permitted. New GMO techniques need to be validated and safety checked to see what genetic changes have occured."

New Zealand must persuade Australian bureaucrats to follow world-class food safety standards being set in Europe, [1] or withdraw New Zealand from the trans-Tasman Food Standards Australia NZ (FSANZ).

Consumers and exporters on both sides of the Tasman are threatened with the introduction of untested, unlabelled genetically modified (GM) food – including animal products – because federal agencies who should be protecting us have sided with the biotech industry and propose deregulation of a range of risky new gene editing (GE) techniques.[2]

"This is the end game for food safety that threatens to sabotage New Zealand's export reputation, close off our access to premium markets, and undermine public health," said Jon Carapiet, national spokesman for GE-Free NZ.

"A Wild West of genetic tinkering cannot be permitted. New GE techniques need to be validated and safety checked to see what genetic changes have occurred."

Powerful, clear scientific evidence shows the potential risks that new GE techniques pose. It’s vital that organisms produced using these techniques are assessed for safety before being released into our environment and supermarkets.

The Australian Federal Government has asked the states to sign off on regulatory changes that would leave risky new GE techniques like CRISPR unregulated.

New Zealand's Minister for food safety must now ensure that both governments make the right decision – to regulate all new GE techniques and their products.

"The alternative is that New Zealand pull out of FSANZ and set out our own world leading food safety regime," said Jon Carapiet.

The European Union’s top court has ruled that new GE techniques such as CRISPR pose similar risks to older, transgenic GM techniques so must be assessed for safety in the same way.

Growing evidence of potential environmental and human health risks refutes biotech industry claims that these new GE techniques are more precise and predictable than older GM methods.

The Australian genetics authority OGTR and FSANZ have relied on out-dated advice from scientists with serious conflicts of interest to reach their decision.

If New Zealand follows the lowest common denominator safety standards being proposed we will be self-sabotaging our point of difference in the global market place.

Gene Editing Drives into Dangerous Unknown Territory

http://press.gefree.org.nz/press/20181005.htm 05/10/2018

The hype around the ease and precision of gene drives for gene editing of plants contradicts the complex changes that occur and pose unknown risks to people, the environment and ecosystems...Once released they are released permanently in the environment and cannot be recalled.

The Royal Society of New Zealand, Te Apārangi, is inviting feedback on scenarios for the use of gene editing in the primary industry sector [1]. Are they leading New Zealand agriculture and horticulture into dangerous unknown territory when they promote genetically engineered Gene Drives without regulation?

“This thin veil of consultation is hyped with cultish obsession on gene drives that permits no dissention” said Claire Bleakley, President of GE Free NZ “

New Zealand has developed in the laboratory plants and animals have reached a point where to get a return on the investments and patents commercialisation of the GMOs is the next step. However, it appears that the Crown Research Institutes and private investors are not willing to undertake safety studies to show that their GMO’s are safe so they are launching a massive advertorial media drive trying to undermine the regulatory process.

“This is to force feed the public with glossy pictures and possibilities of new products using a Mark II genetic engineering technology, under the pretence that they do not have the dangers and failures of transgenic genetic engineering,” said Ms. Bleakley

Gene drives are synthetically made enzymes made using laboratory procedures. They act like scissors, cutting out, altering, pasting, silencing and rewriting the cells information. These changes, when made in pest species, can persist in nature until the organism is driven to extinction. [2] There are unknown and unconsidered dangers on the impacts if the GE constructs spread to non-target populations.

Evidence in the last few years show that changes to organisms using genetic engineered gene drives are not precise or easy to develop and have many unknown risks to the cells and the developing organism [3][4][5]. These change are permanent, and inherited. When eaten the constructs can be absorbed by the gut resulting in abnormalities in blood and organs as well as causing auto immune reactions.

“The hype around the ease and precision of gene drives for gene editing of plants contradicts the complex changes that occur and pose unknown risks to people, the environment and ecosystems” said Claire Bleakley, “Once released they are permanently in the environment and cannot be recalled.”

The EU has declared Gene Drives as GMOs, so has New Zealand law, requiring them to be regulated. We call on the Government to not fall for the hype. It is imperative that all advanced

technologies derived through in-vitro techniques are fully regulated under the HSNO Act and have full governmental oversight.

Communities to Council: Please Keep Northland GE Free

http://press.gefree.org.nz/press/20181101.htm 01/11/2018

We applaud the Regional Council's move to a special hearing to consider precautions around GMOs and hope that they uphold their communities concerns for protection of a GE Free region. Northland region has a growing agricultural market dependent on clean green GE free production.

An overwhelming number of submissions to the Northland Regional Council GMO hearing have backed alignment with Auckland and District Council plans that protect the region's GE-Free status.

The Northland Regional Council has been considering whether it should implement precautionary GMO provisions into its Regional Plan and reflect the policy direction of the Regional Policy Statement.

Submitters from Whangarei District Council, Soil and Health, GE Free New Zealand and GE-Free Northland, Auckland Coalition and individual ratepayers provided compelling evidence in support of a precautionary and protective approach in light of the emerging risks and off target effects of GMOs in the environment.

Expert witnesses included Professor Jack Heinemann, economist Dr. John Small, Dr Pittman, who spoke about Te Ao Maori, tikanga, whakapapa, the mauri of living things and the symbiotic nature to their environment, and Dr Jonathan Latham, who spoke on the emerging evidence of risk from the advanced GE technologies, including the rush for gene editing.

Dr. Shaw Mead spoke on the management of the Terrestrial and Coastal Management Area and the need to have holistic management of the total region, as any GM pollution from the land will infect the soil, water and air.

There were many farmers and business people who spoke about the harm they would suffer if they lost their GE Free status. As has been observed overseas, the introduction of GMOs could increase pesticide use, and collapse ecosystems severely affecting the birds and beneficial insects. Economically it would be devastating for the region.

In contrast Federated Farmers NZ and opposed any local measures to place precautions on GMOs, although there is broad community support for such protections. However, the Federated Farmers NZ presentation lacked evidence to support the claims of safety, and presented an extraordinary misinterpretation of poll statistics.

GE Free NZ is appreciative of the thoughtful and considered questions the councillors asked. It allowed an informative and interactive process that revealed the lie to claims of no negative outcomes from the commercial release of GMO's.

"We applaud the Regional Council's move to a special hearing to consider precautions around GMOs and hope that they uphold their communities concerns for protection of a GE Free region." said Claire Bleakley, president GE Free NZ

Northland region has a growing agricultural market dependent on clean green GE free production.

Open Letter - Glyphosate Based Herbicides Reassessment

http://press.gefree.org.nz/press/20181105.htm 5/11/2018

Tena koe Dr. Freeth,

In light of new information on the safety profile of GBH and without reassessment the original findings on safety are unreliable. We request under HSNO s63 (2)(b) that the Environmental Protection Authority(EPA) conduct a re assessment of the conditions that the workers and public are subject to when GBHs are being used.

GE Free NZ in Food and Environment are extremely disappointed that the EPA is not considering the re assessment of the glyphosate based herbicides (GBH).

The decision not to re assess GBHs (approved under the Hazardous Substances and New Organisms Act HSNO s32) in light of new evidence and concerns raised after the EPA Temple report in 2016, by Bruning and Browning on the safety profile of GBH, means that without reassessment the original findings are unreliable.

We request under HSNO s63(2)(b) that the EPA conduct a re assessment on the full formulations and the conditions that the workers and public are subject to when GBHs are being used.

For many years there has been concern over the use of many pesticides. Mesnage et al, found that the commercial formulations (the active ingredients and the adjuvants) increased the toxicity of the pesticides up to 10,000 times than the active ingredient alone.

When Roundup, a GBH, was first approved it was only for weed management not in food or agriculture. It is so wide spread now it is seen as too useful to ban. When it came off patent in the early 2000, many companies made their own glyphosate formulations, these never had to under go regulatory approval.

New Zealand now has 91 registered GBH formulations. It appears that over the years this approval profile has led to an exponential use of these commercially sensitive formulations, often the concentrations are off label, with wide spread use in residential areas as well as farmland, with ever increasing levels creeping into the food chain with unknown effects.

In 2016 the EPA contracted Dr Wayne Temple to do a paper reassessment on glyphosate (N-phosphonomethyl glycine; CAS registry #1071-83-6) alone, not the 91 different commercial products that contain undeclared commercially sensitive inert additives in their formulations.

Researchers have discovered that these confidential inert additives or adjuvants in full commercial formulations are as toxic as glyphosate, but have not been assessed. The Principal Scientist of the Science group acknowledged this in an email to an EPA member on the 26 July 2016 conceding that “the hazardous properties of a co-formulant POE-tallow amine had not had a risk assessment conducted on it, and maybe they missed something” (Bruning et al 2016, p152).

A memo to Dr. Wayne Temple on 2 August questioned the accuracy of his wording around the minority of glyphosate formulations containing the toxic adjuvant POEA that had not undergone any risk assessment.

We have another question about the wording. As a result of a recent enquiry we have discovered that we estimate 69 glyphosate-based herbicides in New Zealand are believed to contain POEA, which is more than half of the 91 ACVM-registered formulations.

Therefore we consider that the current wording of the report on p.11 should be modified. The Report currently includes the following paragraph:

"As regards glyphosate based commercial formulations a number of formulations with unknown composition have given positive results when tested in vivo and in-vitro. However some of the test systems are not validated and / or interpretation is difficult due to possible confounding, such as cytotoxicity, specific organ toxicity or unclear relevance to humans (such as tests in amphibians, or Invertebrates). Some of the co-formulants (such as polyethoxylated amines (POEA), used in a minority of products) may be more systemically toxic than glyphosate. However EFSA concluded that the genotoxic potential of such complete should further assessed.

Based on the information gathered we no longer consider it accurate to refer to POEA being in minority of products. So we suggest the highlighted sentence is amended by deleting "in a minority of products", so that it reads:

Some of the co-formulants (such as polyethoxylated tallow amine (POEA)) may be more toxic than glyphosate."

Please advise whether you are happy to accept this change? (Bruning J, 2016, p.153)

Glyphosate is a commonly used herbicide around the parks, berms and roadsides and farmland. It is a main herbicide for Local body council NZTA on the main roads and Regional councils and Department of Conservation for pest eradication.

In 2016 the International Agency for Cancer Research (IARC) declared that glyphosate was probable carcinogen and made it a 2A classification.

On the 10 August a groundbreaking court case found that Dewayne Johnson’s cancer (non-Hodgkin’s Lymphoma) has been caused by the use of the glyphosate based herbicides (GBH) Roundup Pro and Ranger Pro. The judgment by the court awarded punitive ($250 million) and economic/ non-economic loss damages ($39 million) on the known dangers glyphosate, which played a direct causation of Johnsons NHL cancer that has led to a shortened life expectancy. Monsanto’s appealed against the ruling but the California judge on 22 October upheld jury verdict but lessened the punitive damages to $39 Million.

A study published by Kurenbach et al (2018) has shown that herbicides containing glyphosate can have an effect in causing antibiotic resistance. Their research demonstrated that the herbicides and antibiotics tested together accelerated capability for resistance. They went on to say

“Unfortunately, antibiotic resistance may increase even if total antibiotic use is reduced, and new ones are invented, unless other environmental exposures are also controlled. This raises concern when GBH are used so prolifically around the regions and people are often on antibiotics”.

We ask that these conditions are considered and re classification of toxicity implemented in the reassessment for Glyphosate Based Herbicides use

• All workers are protected with proper clothing and headgear to stop the fine spray being inhaled or landing on their faces.

• Prohibition of spray in public places or sports grounds where the public and children play.

• No GBH is to be used over waterways or aerially sprayed.

• Parameters around wind speed when spraying.

• Regular blood testing for workers who are using GBH sprays.

• All illnesses that arise when people are in contact with or workers undertaking GBH spraying are given thorough clinical tests to rule out GBH causation.

As Dr. Jane Goodall said in her comment in the Bruning J (2016) report

“Today, I find myself wondering how we might hold regulators to account when they appear to be failing in their duty of protecting people and the environment.”

We ask that the EPA not fail in their duty of care to the public and re assess the conditions of use on Glyphosate Based Herbicides.

UN Requires Regulatory Assessment of Gene Drives

http://press.gefree.org.nz/press/20181201.htm 1/12/2018

The United Nations, Convention on Biological Diversity decision has mandated that gene drives (GE) must undergo a thorough regulatory risk assessment using scientifically sound case-by-case risk assessments before an environmental release.

This confirms New Zealand legislation is correct in requiring regulatory assessment on GE technologies.

However, some New Zealand scientists are collectively pressuring to removal of regulatory assessment on new gene editing (GE) technologies.

“The relentless promotion of gene editing has become a way of deflecting the terrible failures of the first (GMO.1) foray into genetic manipulation. Gene editing is only 5 years old and has never been subject to genomic profiling or feeding trials to see if it is safe to eat,” said Claire Bleakley, president of GE Free NZ.

Dr Andrew Allan Plant and Food’s spokesperson for GE red apples continues to pursue expensive and unproven technology of gene editing as well as promoting the removal of GE regulation and is ignoring overseas success in traditional breeding techniques. Lubera, a Swiss company, who have bred without gene editing (GE) or transgenic engineering, many varieties of red-fleshed apples that are sweet, tangy crispy and scab resistant. These are now on the market for both the home gardener and commercial producers [2] [3]

NZ Plant and Food, previously called Crop and Food, was involved in many GMO field trails. All have failed or been closed down due to breaches and a cavalier attitude of some of their scientists, costing the taxpayer many thousands of dollars. [4] [5]

"After the many failures and breaches of their field trials it is difficult to understand their aversion to undergoing regulatory safety protocols. Further it is hard to trust that the researcher attitude, and desire for ownership of patents will prioritise food safety testing or prevention of GMO contamination," said Mrs. Bleakley.

The need for regulation is a must for any type of manipulation of genes. It is right that the Environment Minister David Parker says that proper regulation will not be relaxed for the genetic editing techniques and that they will, in line with UN and European legislation, be regulated as genetically modified organisms (GMO's) under the Hazardous Substances and New organisms Act (HSNO).

The agenda for investment in agricultural research needs to be revised to focus on new systems for sustainable, climate smart farming. New Zealand regulations have protected the country from the dangers and human errors of GMOs. These regulations must be kept in place and we continue to be proud to be able to sell food that is GE Free.

Dr Jeffery Smith now brings you:

Watch for ***free*** Dr Jeffery Smiths new video **- Healing from GMOs & Roundup**

Discover how you can protect yourself and your family from the devastating effects of GMOs and Roundup based on their new, leading-edge research

> Learn from the Experts: Watch 18 preeminent doctors, researchers and product developers as they share their astonishing findings from the lab to the clinic.

https://goo.gl/p9k3mC

https://healingfromgmos.com/

Also available, Dr Jeffery Smiths new film **- Secret Ingredients**

"This film is a life-changing, health promoting, must-see for anyone who eats!"

– Andrea L., Registered Dietician

https://secretingredientsmovie.com/

Summary of Wins across the Ditch in 2018

Courtesy of Gene Ethics - fpr a GM-Free Australia

geneethics.org

* GM crops kept at bay in Australia *

Our advocacy for GM-free saw GM canola drop from 30% to <15% of Australia's canola crop. Only GM canola and cotton are grown commercially.

* 35 local councils move to Roundup-free *

Gene Ethics' campaign petitions (scroll down) helped Local Councils go Roundup-free as they are liable for Roundup's impacts on residents and workers. Our long-running Chemical-free Councils campaign took off when Dewayne Johnson, plaintiff in the Johnson vs Monsanto case, was awarded $78 million for his glyphosate-induced cancer. Four Corners told the story.

* SA GM-free set to continue till 2025 *

We took the lead with the SAGFIN team in the campaign to keep South Australia GM-free. Our cyberaction and letter writing campaign were successful.

* New CRISPR GM deregulation delayed *

Our joint cyberaction with FoE mobilised 1,500 people to lobby State Ministers. Ministers then resisted the federal government's push to deregulate new GM CRISPR techniques and products which are untried and unsafe. They called for further advice so we are sending more evidence to add to our earlier submissions.

* Farmers Compensation Fund for WA *

Gene Ethics, FOODWatch and FoE made a strong case for a no-fault Compensation Fund, from which farmers can claim for GM contamination. It would be funded from a levy on GM seed sales, so the GM industry opposes the scheme. But Agriculture Minister Alannah MacTiernan and Greens MP Diane Evers are sympathetic.

* Senate reviews APVMA and farm chemicals *

Gene Ethics contributed background to the ABC TV Four Corners program Monsanto Papers. It featured Dewayne Johnson's success and Monsanto's fake denial that Roundup causes cancer. In Australia, the program challenged the APVMA's independence as the regulator recovers most of its operating costs from the chemical companies. We meet the Senate Committee next week to argue the case Gene Ethics made in its written submission.

INTERNATIONAL:

New Australian Study Shows GM Crops Cause Leaky Stomachs in Rats

A ground breaking new study from Australian experts has shown that so-called "Bt proteins", produced by some GM crops, may not be as safe as previously assumed.

Source: GMO Judy Carman 11 July 2018

Any two cells that line the stomach are normally held tightly against each other to form a "tight junction". This stops any bacteria, viruses […] The post New Australian Study Shows GM Crops Cause Leaky Stomachs in Rats appeared first on Sustainable Pulse.

Read more: https://goo.gl/VKXcaL

Experts Confirm Differences Between Genome Editing and Mutation Breeding

In a recent publication jointly prepared by experts from the German regulatory authority (BVL) and US corporation DowDuPont, the experts have explicitly confirmed significant differences between new methods of genetic engineering and conventional plant breeding.

Source: www.testbiotech.org/en/node/2224 9 July 2018

According to the publication, plants manipulated with methods known as genome editing can be identified and traced in most […] The post Experts Confirm Differences Between Genome ...

Read more https://goo.gl/W2Ny68

Loopholes proposed by the Trump administration could exempt over 10,000

Or one out of six – genetically modified foods from a new GMO disclosure law, according to an EWG analysis.

Source: Sustainable Pulse 2 Jul 2018

The draft rule may exempt foods produced with GMOs if the food products contain highly refined GMO sugars and oils. There is a high rate of […] The post Loophole Could Exempt Over 10,000 GMO Foods from GMO Labeling Law appeared first on Sustainable Pulse.

Read more https://goo.gl/Wn8LKy

Dark Forces Attempt to Weaken GMO Risk Assessment in UN Biodiversity Convention

Source: Sustainable Pulse 29 June 2018

Documents released to Corporate Europe Observatory (CEO) by the Dutch Ministry of Health reveal an industry-aligned collaboration between biotech corporations, researchers and regulators, that seeks to weaken UN biosafety discussions on risk assessment of GMOs and new genetic engineering techniques like Synthetic Biology. With a new round of UN talks on the issue

taking place […] The post Dark Forces Attempt to Weaken GMO Risk Assessment in UN Biodiversity Convention appeared first ...

Read more https://goo.gl/rHa6wa

CRISPR Could Be Causing Extensive Mutations And Genetic Damage After All

Source: www.sciencealert.com/ 16 July 2018

CRISPR has been heralded as one of the most important breakthroughs in modern science, but there could be a hidden and potentially dangerous side effect to the wonders of its genetic editing technology, a new study reveals. Source: www.sciencealert.com/ A systematic investigation of CRISPR/Cas9 genome editing in mouse and human cells has discovered that the technique appears to frequently […] The post CRISPR Could Be Causing Extensive Mutations And Genetic Damage After All appeared ...

Read more https://goo.gl/pEmrLZ

Government Approves Ban on the Cultivation of GMOs in Ireland

Source: www.independent.ie/ 12 July 12018

The Cabinet has agreed to enable Ireland to prohibit or restrict the cultivation of Genetically Modified Organisms (GMOs) in Ireland. Source: www.independent.ie/ The Government approved the transposition of an EU Directive, which will enable Ireland to opt out of cultivation of GMO crops approved for cultivation elsewhere in the EU. This will happen on a much wider […] The post Government Approves Ban on the Cultivation of GMOs in Ireland appeared first on Sustainable Pulse.

Read more https://goo.gl/C61957

Trump Administration Reverses Partial Phase Out of GMOs and Neonics in US Wildlife Refuges

Source: newsroom.defenders.org 4 Aug 2018

The Trump administration has stopped a partial phase out of the use of neonicotinoid pesticides and genetically modified crops on national wildlife refuges where farming is permitted, threatening pollinators like bees and butterflies along with a suite of other wildlife species that depend on healthy, natural refuge habitats. Source: newsroom.defenders.org This policy, announced via a U.S. Fish […] The post Trump Administration Reverses Partial Phase Out of GMOs and Neonics in US ...

Read more https://goo.gl/ETPzyc

European Court of Justice: Gene-Editing Will be Regulated in Same Way as GMOs

Source: Sustainable Pulse 25 July 2018

The European Court of Justice (ECJ) today published its ruling on the legal status of food and feed crops derived from certain new genetic modification techniques. It gave clear confirmation that organisms from these new gene editing techniques are covered by existing EU GMO regulation. Reacting to the decision, which corroborates the January 2018 opinion of one […] The post European Court of Justice: Gene-Editing Will be Regulated in Same Way as GMOs appeared first on Sustainable Pulse.

Read more https://goo.gl/dTp3xy

New Gene-Editing Report Highlights Risks to Human Health and Our Environment

Source: Sustainable Pulse 13 Sept 2018

On the heels on the European Court of Justice's ruling requiring organisms developed using new genetic engineering techniques to undergo GMO risk assessments, and several new studies revealing "genetic havoc" as a result of gene editing, Friends of the Earth and Logos Environmental released a new report Wednesday, Gene-edited organisms in agriculture: Risks and unexpected consequences. […] The post New Gene-Editing Report Highlights Risks to Human Health and Our Environment appeared ...

Read more https://goo.gl/22ito1

Organic Food Lowers Your Blood Cancer Risk by 86% – 70,000 French People Surveyed

Source: By Mia De Graaf www.dailymail.co.uk 23 Oct 2018

Cutting out pesticides by eating only organic food could slash your cancer risk by up to 86 percent, a new study claims. Source: By Mia De Graaf www.dailymail.co.uk The biggest impact was seen on non-Hodgkin's lymphoma risk, which plummeted among those who shunned chemical-sprayed food, according to the survey of nearly 70,000 French adults. Overall, organic […] The post Pesticide-Free Organic Food Lowers Your Blood Cancer Risk by 86% – 70,000 French People Surveyed ... hygeia-analytics.com

Read more https://goo.gl/ZTf7RX

Global Anger Erupts after Chinese Scientist Claims First Gene-Edited Babies

Source: Sustainable Pulse 27 Nov 2018

Chinese scientist Jiankui He has announced the birth of twin girls whose DNA he claims to have altered using the gene-editing technique CRISPR. “If true, this amounts to unethical and reckless experimentation on human beings, and a grave abuse of human rights,” said Marcy Darnovsky, Executive Director of the Center for Genetics and Society, a […] The post Global Anger Erupts after Chinese Scientist Claims First Gene-Edited Babies appeared first on Sustainable Pulse.

Read more https://goo.gl/wcsqn6

Tanzania Orders Destruction of Monsanto/Gates Foundation GMO Trials

Source: Sustainable Pulse 24 Nov 2018

Tanzanian civil society organisations (CSOs) welcome the decision of the Permanent Secretary of the Ministry of Agriculture, Livestock and Fisheries, Mathew Mtigumwe, to bring an immediate stop to all ongoing GMO trials taking place in the country. These are under the auspices of the Water Efficient Maize for Africa (WEMA) project which includes Monsanto, the […] The post Tanzania Orders Destruction of Monsanto/Gates Foundation GMO Trials appeared first on Sustainable Pulse.

Read more https://goo.gl/WaFdqH

Bayer to Cut 12,000 Jobs, Exit Vet Unit Amid Drag From Suits

Source: Tim Loh/Naomi Kresge, Bloomberg.com 30 Nov 2018

Bayer AG plans to cut 12,000 jobs and exit its animal health business in an effort to mollify Wall Street, which has punished the company over the tidal wave of lawsuits that came alongside the $63 billion takeover of Monsanto Co.

Read more https://goo.gl/fXmFyv

What GEFreeNZ has been up to ...

Here is a quick summary of what's been happening,
but please check our website for more info: http://www.gefree.org.nz

- We have been participating in discussions with regulators and government.

- We have been disseminating national and international GE research findings.

- We have been actively supporting the GE Free regions court cases led by Soil and Health and GE Free Northland.

- We have participated in collaborative discussions with Australian & USA bodies.

GE Free Policy

Keep an eye out for this logo & encourage manufacturers to get listed & use the logo.

The policy simply requires sourcing non-ge ingredients for their produce and non-ge feed for their livestock. This is a policy not a guarantee to assure customers so should be easy to encourage all producer across the board.

More information here: http://gefreepolicy.com/

GE Free NZ Membership

We would love it if you could help by contributing an AP, no matter how small, to keep us ticking over & provide much needed assistance to raising awarenesses & protecting our legislation.

Please help us continue to keep Aoetearoa GE Free. We utilise your donations towards whatever action is currently requiring attention.

bank account#: 06-0996-0521358-00

http://www.gefree.org.nz/join-ge-free-new-zealand/