



GE Free New Zealand In Food and Environment Newsletter -April 2015

Agroecology or Ecocide – the future is in our hands

The Food Matters Aotearoa conference this February was an outstanding success that showed us the future is in our hands but should not involve failed technologies which result in ecocide and harm to all ecosystems and the health of flora and fauna worldwide.

The overarching message is a new agricultural paradigm is needed which focuses on good soil health and heritage varieties: producing food with high nutrient levels to support our health.

Joining others to resist corporate control is essential. Worldwide, reaction is against the secretive TPPA trade deal and stranglehold measures proposed by industry to force us to eat GE, antibiotic and pesticide laden food. The list of harm caused to human and environmental health has to be seen to be believed.

At the same time new evidence of the failure of our governments and regulatory agencies alongside their collusion with industry proponents shows that the time has come to call them to account.

We must spread the word, especially with new evidence. Now is a time of polarity, a time for action and to stand up and speak out.

Whilst writing this newsletter more news came out on the dangers of Glyphosate to our health...this time firstly a report from the IARC for the WHO on the carcinogenicity of Glyphosate putting it at the second highest level of assessed carcinogens.

The following week news from Professor Jack Heinemann whose research shows that glyphosate, 2-4D

and dicamba are contribute towards antibiotic resistance.

One of the greatest risks to modern medicine it increases the risk for all our families in the future.

GE Free New Zealand extend our thanks to all those involved in the organization, support and those who attended the FMA conference.

**Conference presentations see
www.foodconference.co.nz/**

Research into agroecological methods is needed. Producing more quality food than controversial technological 'fixes' which fail to address the true cost and cause of failing farm outputs and deteriorating health both of soils and those consuming industrial food. The effects of use of Roundup Ready crops are seen in the US, where problems are resulting in lower yields, reduced soil micro-organisms and minerals, increased weed resistance, plant disease and water usage. Those consuming Roundup Ready GE crops are, like Seralini's lab rats showing all the signs of endocrine disruption, gut disorders, decreasing fertility, obesity, diabetes, mental health problems and autism. The relation of mineral deficiency and depleted beneficial gut flora to these diseases is correlated in graphs showing increase in use of herbicides on GE crops.

**Red alert - Stop GE trees
sneaking into New Zealand by
the back door'**

A proposed draft National Environment Standard for plantation forestry threatens to override local government rulings of precaution around GE.

**Write to your council and
government now p6**

Independent scientist Professor Giles Seralini's ground-breaking research has identified that proprietary brands of chemicals are not fully assessed for the adjuvants and surfactants added but solely for the active principle used eg. glyphosate. His research shows that these added chemicals some of which are up to 1,000x more toxic than glyphosate are the main culprits.

We must demand that all additional chemicals added to formulations are also fully tested and that those which are not identified due to commercial sensitivity are bound to be disclosed. Only in this way will we get any true assessment of the toxicity of the compounds and the effects on the health of our children who are most at risk.

US farmers are struggling to survive, the subsidies they receive to grow soy (98% of all soy seed is now GE) and corn is all that's keeping them from going to the wall as their soil fertility declines. Interesting data from Jack Heinemann's comparisons between the two production system comparison's of the EU and US showing that production of US crops is now flatlining as new technologies fail and soils become more degraded, whereas those of the EU who have avoided GE crops are still increasing. With production costs escalating as fuel and fertilizer costs escalate, the light at the end of the tunnel appears to be the adoption of heritage seed varieties demanding less fertilisers and having a greater resistance to disease. Bob Mackley, grain farmer from Australia talked of how his heritage grain crops are both improving his soils and his returns, after moving away from growing canola after GE contamination.

You may not know but 2015 was declared International Year of Soils (IYS) for raising awareness of the importance of soils for food security and essential eco-system functions. Objectives stated :

to create full awareness of civil society and decision makers about fundamental roles of soils for human's life;

to achieve full recognition of prominent contributions of soils to food security, climate change adaptation and mitigation, essential ecosystem services, poverty alleviation and sustainable development;

to promote effective policies and actions for sustainable management and protection of soil resources;

to sensitize decision-makers about the need for robust investment in sustainable soil management activities aiming at healthy soils for different land users and population groups;

to catalyze initiatives in connection with the SDG process and Post-2015 agenda;

to advocate rapid enhancement of capacities and systems for soil information collection and monitoring at all levels (global, regional and national).

Soil is the basis for food, feed, fuel and fibre production and for services to ecosystems and human well-being. It is the reservoir for at least a quarter of global biodiversity, requiring the same attention as above-ground biodiversity. Soils play a key role in the supply of clean water and resilience to floods and droughts. The largest store of terrestrial carbon is in soil so that its preservation may contribute to climate change adaptation and mitigation. The maintenance or enhancement of global soil resources is essential if humanity's need for food, water, and energy security is to be met.

How much will the UN achieve? Where is the information in the press and from the New Zealand government? Ask them now.

International Year of the Soil 2015

Ploughing on regardless

Landowners around the world are now engaged in an orgy of soil destruction – so intense that, according to UN's Food and Agriculture Organisation, the world, on average, has just 60 more years of growing crops.

To keep up with global food demand, the UN estimates, 6 million hectares of new farmland will be needed every year. Instead, 12 million hectares a year are lost through soil degradation. We wreck it, then move on, trashing rainforests and other precious habitats as we go. Soil is an almost magical substance, a living system that transforms the materials it encounters, making them available to plants. That handful the Vedic master showed his disciples contains more micro-organisms than all the people who have ever lived on Earth. Yet we treat it like, well, dirt. The intensification of farming over the last century has increased the rate of soil erosion 60-fold.

Research in the UK, shows that soil in allotments – the small patches in towns and cities that people cultivate by hand – contains a third more organic carbon than agricultural soil and 25% more nitrogen. Allotment holders produce between 4-11 times more food per hectare than do farmers.
monbiot.com/2015/03/25/3703/

The 5 pillars of action

The Global Soil Partnership (GSP) will support the process leading to the adoption of sustainable development goals for soils with 5 pillars of action
fao.org/globalsoilpartnership/iys-2015/en/

It will contribute to environmental wellbeing through preventing soil erosion and degradation, reducing greenhouse gas emissions, promoting carbon sequestration and promoting sustainable use of agricultural inputs for soil health and ecosystems management. It will contribute to human wellbeing and social equity through improved use and governance of soil resources, finding alternatives to soil degrading practices through participatory experiential processes, and being sensitive to issues of gender and rights of indigenous peoples.

Phyllis Titchinin, agroecology consultant, spoke on soils and organic healthy food production with high nutritional levels at the Food Matters Conference.

“Most of what we hear about soils comes from information from the fertilizer companies who say that without their products we won't be able to farm profitably that we are stuck with the quality and productivity we have now.”

“Hogwash! We have to understand the soil is a highly complex living ecosystem dominated by a dazzling number and array of synergistic microbes capable of creating the most complex substance we know humus- the jewel of humanity and the soul of the earth.”

“Our existence depends on the presence and growth of humus...only soil microbes can create humus but they can't do it if they are subjected to conventional ag hazardous working conditions of excessive synthetic fertilizers, herbicides or pesticides and cropping systems that don't keep a continually growing root in the field for microbe nourishment. Humus is continually burned up releasing huge amounts of CO₂. without humus we are toast.”

“However with humus production and good agricultural practices we can bring greenhouse gases down to 300ppb in a decade – it all hinges on humus. Hence the term biological agriculture. It is possible to turn it around within 5 years. Several years of grazing, mineral inputs, continual cover crops and minimum tillage. The engine room of the soil with well growing roots will establish a soil mineral balance.. tiny amounts of liquid foliar fertilizer can give double crop volume, 3x mineral content in pasture and food value of food and a drop off in pests.”

A Sanskrit text from around 1500 BC noted, “Upon this handful of soil our survival depends.

Husband it and it will grow our food, our fuel, and our shelter and surround us with beauty. Abuse it and the soil will collapse and die, taking humanity with it”.

monbiot.com/2015/03/25/3703/

Glyphosate (Roundup) is one of the most important factors affecting our food and environment.

Without doubt the detrimental effects of glyphosate - Roundup on our health and that of our environment and ecosystems are extremely important. We make no apologies for devoting space to this pesticide after the **WHO announced it's probably carcinogenic to humans' a very high category and Professor Jack Heinemann's research shows it causes antibiotic resistance.**

Reasons to ask for a ban include:-

- Continued increase in maximum residue levels on imported GE foods
- Increased use on non GE foods produced in NZ eg. milk, grain, potatoes
- Increased use on farmland for direct drilling paddocks
- Increased use in crops fed to animals- GE soy, GE canola, grain and silage
- Continued use by parks and reserves contractors and for weed control near waterways
- Increased evidence of glyphosate in waterways and sediments
- Increase in algal growth and paralytic shellfish poisoning
- Increase in cancers among agricultural workers
- Increased ill health in our communities
- Increased pathogenic bacteria and reduction of beneficial bacteria in soils and the gut
- Increased water use by crops
- Threat of GE trees and grass approvals in NZ could result in further increased use
- Increased resistance in weeds

There have been recent approvals of pesticides combining **dicamba, glyphosate and 2,4-D** for use on resistant GE soy and cotton, expected to increase use of these pesticides. GE Free NZ appealed similar crops being approved into the NZ food supply – neither FSANZ nor government took action.

www.aphis.usda.gov/biotechnology/petitions_table_pending.shtml

Study Links Widely Used Pesticide To Antibiotic Resistance

civileats.com/2015/03/24/study-links-widely-used-pesticides-to-antibiotic-resistance/

A study published 24/3/15 by the American Society of Microbiology's journal *bo* has linked **glyphosate** and 2 other herbicides—**2,4-D and dicamba**—to one of the most pressing public health crises of our time: antibiotic resistance. Exposure to these herbicides in their commercial forms changed the way bacteria responded to a number of antibiotics, including ampicillin, ciprofloxacin, and tetracycline—drugs widely used to treat a range of deadly diseases.

Jack Heinemann, professor of genetics at the University of Canterbury, explains, when pesticides are tested for adverse effects, “it’s the lethal toxicity that people focus on.” In other words, how much of the chemical will kill an organism. “What makes our study different, is that it is looking at a sub-lethal effect,” he says. “The effect we see requires that the bacteria stay alive.” Heinemann explains that because these herbicides are not “supertoxic” to the bacteria the study tested—*E. coli* and *Salmonella*—they are not killed outright at levels typically used to kill weeds. Instead, the bacteria stay alive while activating proteins known as efflux pumps in order to rid themselves of toxins. This defense mechanism can make bacteria develop resistance to the threat it is defending itself from.

Scientists know that overuse of antibiotics in humans can decrease their effectiveness. In the same way, says Heinemann, “exposure to these pesticides make the pathogens stronger.” The antibiotics examined represent what he calls “broad classes” of drugs we’ve come to depend on to fight infections and the herbicides are three of the most-used worldwide.

Pesticide-induced antibiotic resistance could also affect honeybees since many commercial hives are now being treated with antibiotics.

Banvine spray containing dicamba, 2,4-D & glyphosate is being used by councils for weed control.

WHO study finds glyphosate - probably carcinogenic to humans

In March, 2015, 17 experts from 11 countries met at the International Agency for Research on Cancer (IARC; Lyon, France) to assess the carcinogenicity of organophosphate pesticides:- tetrachlorvinphos, parathion, malathion, diazinon, and **glyphosate**. The following comes from the release by the Lancet. ‘Glyphosate is a broad spectrum herbicide with the highest production of all herbicides. It is used in 750 different products for agriculture, forestry, urban and home applications. Described as **‘probably carcinogenic to humans’** this is the second highest category (2A) Most chemicals thought to be carcinogens are in this category or a lower one, just over 100 evaluated as ‘carcinogenic to humans’ (1)

Occupational exposure in US, Canada, Sweden reported increased risks of non-Hodgkin lymphoma. **Glyphosate has been detected in the blood and urine of agricultural workers, indicating absorption.** Glyphosate has been detected in air during spraying, in water, and in food. Chromosomal & DNA damage One study reported increases in blood markers of chromosomal damage (micronuclei) in residents of several communities after spraying of glyphosate. thelancet.com/journals/lanonc/article/PIIS1470-2045%2815%2970134-8/abstract

Farmers worldwide are using more Roundup than ever. Nearly ½ the huge 13 year increase in herbicide use in the last 2 years.

Glyphosate was originally patented as a descaling agent for boilers in 1964, a powerful chelator of minerals it worked by attaching to minerals. During disposal it was found to kill plants and **in 1969 patented as a herbicide** by Monsanto. In 1996 Roundup Ready crops revolutionized weed management causing mineral depletion in resulting foods. In 2005 it was registered as a desiccant and in 2010 patented as an antibiotic.

Despite the fact that we don't grow GE crops in NZ, we import them. Nutritional differences caused by glyphosate use – a reduction in many minerals causing a bushel of corn measured by size to drop in weight by 2lbs from 56 to 54 lbs. that 2 lb loss is minerals!

Used as a desiccant, prior to harvest on cereals, beans and sugarcane increased residues and an antibiotic effect favours pathogens like Salmonella (chickens) and Clostridium (cattle) whilst destroying good bacteria like Lactobacillus. In humans it has been found that faecal transplants from a healthy source is the best way to restore gut bacteria destroyed by glyphosate, intestinal infections then disappear.

The microbiome of the stomach is as important as the brain to our continued health – 100 trillion bacteria in the lower intestine make it a 'symbiotic organism' – with more nerves between the stomach and brain it is a neurotransmitter-sending serotonin to the brain, and in charge of circulation and the immune system. Asthma and allergies result from a damaged microbiome. Also coeliac disease is strongly connected to a microbiome affected by glyphosate, rather than gluten. (see Samsel and Seneff) Digestive disturbance results in inflammation degeneration, obesity and cancer. Glyphosate bio-accumulates in lungs, hearts, kidneys, and intestines. Higher glyphosate levels have been found in the chronically ill. (Kruger) Analysis of correlations between Roundup use on GE crops and a range of illness (Nancy Swanson) shows disturbing results for example Roundup Ready (RR) soy and corn autism has a 0.99 causation value this is very high demonstrating a link. Micronutrients help wellness. Other values are coeliac 0.98, intestinal infection 0.97, thyroid cancer 0.99, liver cancer 0.96, bladder cancer 0.98, pancreatic cancer 0.92, kidney cancer 0.97, kidney failure 0.98, obesity 0.96, dementia 0.99.

Legal residue levels were revised up in 2010. Now breakfast cereal has an allowable 30 ppm, animal feed 100 ppm, soy 120 ppm. **A link between this and rising illness was never considered. Since 1974 regulators accepted that Roundup was safe!**

GE Free New Zealand In Food & Environment

Dr. Meriel Watts PAN –Chemicals and our children

The main Neonicotinoids in NZ are **Imidacloprid and Clothianodon** - 10,000 x as toxic as DDT – one seed can kill a bird and they are toxic to everything that eats. Nectar, pollen, and gutation droplets from the plant are all poisonous!

'Neonics' not only accumulate with repeated applications, but the half life is 3 yrs in the soil, and is often still found up to 19 years.

Grass, corn and maize is treated but not labelled. Not one seed company actually identifies 'neonics' or other seed treatments, so farmers and gardeners have no idea that they are even being used!

'Neonics' are highly soluble and wash out into ground water there accumulating. In the Netherlands the concentration in the water was so high (25,000 times the eco-toxicity limits) that they could be used directly as a spray of the 'right' concentration.

Biodiversity is vanishing, insecticides damage the immune system of bees, and thus undermine global food production by affecting pollination and also killing micro-organisms, both essential to agricultural production. One quarter of bird species are facing extinction, butterflies and aquatic species are also very sensitive.

All this is arising from everyday use, used the way that is approved by the regulator. Yet accumulation year on year is not assessed, neither is any assessment of a combined use of different chemicals assessed. Take Roundup which acts as a fertilizer for some species of microbes whilst killing others, thus impacting on ecological functioning and destroying the balance of fragile ecosystems.

Algal blooms and paralytic shellfish poisoning are also affected by run off – NIWA found evidence of AMPA and glyphosate in Auckland harbor sediment prior to the poisoning of dogs. Runoff from the roadsides was the likely culprit and it is now being phased out.

Why haven't we learnt from past mistakes which are now coming back to haunt us in the form of the 46 chemicals found in the umbilical cord at birth, as well as breast milk and all foods once a child is born.

Children are incredibly sensitive to

pesticides, very low levels often having serious lifelong effects on all aspects of life. But this isn't taken into account even if the chemical has an MRL as these are based on the tolerance of an adult male!

Chloropyrifos is one of the worst with widespread use. US epidemiological studies from birth on found that children subjected to it had a reduced IQ, memory, more ADHD, altering brain structure A resulting 5 point IQ drop equates to a 50% increase in less able kids and a 50% drop in gifted kids. Prenatal exposure results in lifelong problems, increased drug use, mental illness, depression etc. a silent pandemic is occurring.

The connection between longterm exposure to glyphosate, chloropyrifos and neonics isn't taken into account by regulators. They say we have to have pesticides, yet there are no papers to prove that to be true, and we can provide clear evidence of alternative solutions with little or no effect on any decision. The UK tried to stop an EU wide ban of neonics, it was paid for by Syngenta the company that produces them. 67% of scientists on EU board that assesses toxicity of pesticides have direct links to industry involved in them. It is a better evaluation than many other countries around the world have, but the EU is still not good at proper regulation.

In the US, 31 pesticides, endocrine disruptors were about to be banned, industry fought to keep them.

The NZ EPA assessed organo-phosphate pesticides but chose not to look at chloropyrifos since it is not banned elsewhere. Despite chemical and non-chemical alternatives being given the EPA still maintained that some farmers didn't want to use alternatives. But they are NOT safe: children, the environment, farmland and food is suffering and there are alternatives.

At the UN level highly hazardous pesticides have to go – global alliances are needed to phase them out NOW. NZ government are not keen to be involved if they are even aware of the dangers. We need massive change to avoid eco collapse and we need it soon! Ecocide is not an option.

Professor Jack Heinemann- was involved in Adhoc UN discussion around Biodiversity - Cartagena protocol and Socio-economic- ISTAAD looking at yield grains-increases/decreases and agricultural sustainability. He chose to compare near equivalent agroecosystems – N. America and W. Europe
The goal is more tasty nutritious food

- From less land
- Fewer pesticide/fertilizer inputs
- Less water input
- Less carbon input.

The comparison was equal in most ways 3 crops in common-maize in US depleted soils- low biodiversity and high inputs. Reduced farmer involvement as subsidized but less choice & high pesticide use. Time-US & Western Europe 1961 – 2010 Europe produces the same quantity as the US but in very different ways – a combination of factors is important for the behavior of the agroecosystem and it exceeds US despite no adoption of GE crops. Peaks and troughs were much larger in the US, as high as 89 trillion kilocalories (6x the 80s plant pathogen epidemic loss). This is suggestive of stressed agroecosystems. Western Europe produces more and has a greater increase in yield – no increase with GMOs and no Roundup use.

Wheat- no GM in Western Europe by yield basis was better over last 50 years. Sustainability versus external inputs and some benefit in pesticide reduction. France is down on use of insecticide & pesticide by 12% to 82% of 1995 use.

US 2012 had 5.7m hectares-GE cotton, soy, canola, maize with glyphosate resistant weeds- 22 species. There is 17% of choice of corn now available as in 2005, 10% of choice of soy, & 15% of choice of cotton. GM not cause of germplasm loss but **US monopolization of seed supply** 82% Corn 93% Soy only 5% in 1980 by 2010 93%- 1 type. US relatively low yields and high pesticide use, less biodiversity. Europe also beats the US with breeding, farm practices and management, and social goals.

Moana Jackson's presentation came down to 3 words '**Defense of home.**' Discussing our human relationships with the earth that for generations has provided water and nourishment for all creatures, he exposed the damage to both by conventional agribusiness 'tied to the juggernaut thrust of capitalism' and via trade deals such as the TPPA and the 'stultifying' influence of intellectual property rights, where everything is regarded as property. These issues, now appear in every country in the world GMOs/ water rights are commonalities we can all identify with and thus we need to find a common base to overcome the problems we are faced with.

Looking at the colonial names of our towns, where Maori names steeped in history and meaning were ousted in favour of colonisers. Similarly an understanding of land is sidelined by the arguments of scientists and lawyers. We must tie the debate back to the land, home is 'the vessel from which we grow' and we must listen more carefully to its stories. GE tampers with the essence of identity and disrupts the whakapapa, yet there is no place for this in a discussion which solely 'mitigates risk' without debate or questioning of the process. We must fully understand the issues, finding the source from which to debate. Commodification is a global issue.

All indigenous peoples talk of home -mother earth, the land from where they come. We need to contextualize not get absorbed by specific battles, eg. science but look at things more simply - as a defense of home. **Food matters because without it we cannot defend our home!**

TPPA – policy in NZ the US considers to be “trade barriers, Controls on GMOs (“biotech”) and associated food labelling (noting that animal feeds fall outside controls), bans on imports of poultry meat and fruit due to the risk of introducing diseases, areas of patents, copyright legislation it wants changed (impact on cost of medicines and internet freedom), overseas investment screening regime, Pharmac, and its expanded responsibilities.
ustr.gov/sites/default/files/2015%20NTE%20Combined.pdf.

Conference presentations audio with power-points are on line – see below Professor Jack Heinemann - **Comparative sustainability of intensive GM & non-GM agroecosystems**

www.foodconference.co.nz/medianews/videos/comparative-sustainability-of-intensive-gm-and-non-gm/

Dr. Anna Goodwin - **Overweight, undernourished, sterile, and dying of cancer**

www.foodconference.co.nz/medianews/videos/overweight-undernourished-sterile-and-dying-of-cancer/

Bob Mackley – Farmer

Soil Conservation

www.foodconference.co.nz/medianews/videos/soil-conservation/

Dr. Meriel Watts

Children & Pesticides - A Wake Up Call

www.foodconference.co.nz/medianews/videos/children-and-pesticides/

Professor Don Huber

Glyphosate & GMOs - Flawed Science

www.foodconference.co.nz/medianews/videos/new-you-tube-page/

3 DVDs with all the proceedings will be available in the near future. Email-info@food conference.co.nz
Copies of Seralini and Douzelet book Culinary Pleasures or Hidden Poisons are also available.

For help with presentations on glyphosate to council contact Claire or go to GE Free NZ website:-
www.gefree.org.nz

STOP GMO Pacific *call on all Pacific peoples to join and support seed freedom and GMO free Pacific. "We need a Trans-Pacific Partnership of the people for seed freedom and for the planet"*

Why is Bill Gates backing GMO red banana 'biopiracy'?

The Gates Foundation has sunk \$15 million into developing GMO 'super bananas' with high levels of pre-Vitamin A. But the project is using 'stolen' genes from a Micronesian banana cultivar. Why, delicious, popular, nutritious 'red bananas' rich in carotenoids are already grown around the tropics?

Monsanto contributed to the legal defence of WA farmer sued by his organic farmer neighbour - Emma Field *The Weekly Times*, 8.4.15

Monsanto contributed to the legal defense of Western Australian farmer, Mr. Baxter sued by his organic neighbour, Steve Marsh for contamination after growing Roundup GM canola. Marsh lost his bid to sue his neighbour for \$85,000 in damages last year, after claiming he lost more than 50% of his organic certification after Roundup Ready canola from Baxter's property blew onto his farm. The court ordered Steve Marsh to pay \$800,000 court costs and ordered Baxter to reveal information about Monsanto assistance towards Mr Baxter's legal defense. Monsanto did contribute but refuse to reveal how much money. Monsanto owns the RR gene, which in GM canola varieties. Gmwatch.org

'Red alert - stop GE trees sneaking into New Zealand by the back door'

A proposed draft National Environment Standard for plantation forestry threatens to override local government rulings of precaution in regards to GE organisms stating:-

"Afforestation using GM tree stock is permitted where the tree stock has gained appropriate approval for deployment from the Environmental Protection Authority(EPA), and being subject to conditions imposed by the EPA"

EPA approval of GE trees may increase pesticide use and affect ecosystems, biodiversity and health. We need to write to the Ministry for Primary Industries and our local councils asking them to require local councils to retain council decisions on forestry in their locale www.mfe.govt.nz/land/proposed-nes-plantation-forestry

Polish farmers protest. 10.2.15

Thousands of small farmers in Poland are blockading motorways and holding demonstrations to demand land rights, a ban on GMOs and an end to oppressive health and safety regulations - and they are refusing to call off the protests until their demands are met.

theecologist.org/News/news_round_up/2747384/polish_farmers_block_motorways_for_land_rights_no_gmos.html

Dr. Vandana Shiva speaks in NZ:-

There were once 1050 varieties of wheat, 4000 of brinjal, 1500 of cotton and 200,000 of rice. Biodiversity embodied health and nutrition, some varieties good for breastfeeding, others had high Vitamin E. No variety had only one purpose, they were used for grain and straw, they had incredible multi-functionality. Variety was the backbone of traditional agriculture. Industrial agriculture trades on the global market and uses industrial fertilisers and pesticides, creating 40% of emissions & climate change. If this increases to 45% we may no longer be able to change it, biodiversity is essential to our survival. There is an urgent need to get away from the biological uniformity of industrial farming. System of external control ultimately cause death, we need free systems and decentralized democracy promoting social justice.

Farming in India follows nature's ways, farming organically not with monocultures, it results in higher minerals, particularly calcium and potassium. Lack of nutrients leads to depression, magnesium deficiency contributes to attention deficit and manganese affects brain function. Roundup leaves our food nutritionally empty. Industrial agriculture has destroyed 75% soil, water and air, 75% health problems are from industrial and genetic engineering eg. Vitamin A rice 300% less beneficial than biodiversity. The Australian banana – higher in nutrients has been pirated from the islands for its properties.

What about biosafety? We are producing empty and toxic food, every GMO has antibiotic markers and viral promoters and new diseases are emerging eg. H1N1, SARS. We are destroying nature's biodiversity, in the name of health we must fight to retain it, through non-cooperation if needs be. It is our duty to save seeds and not allow laws to be passed that will stop us or future generations from doing so. In India they fought these laws. In Maryland, Pennsylvania, Wisconsin and Minnesota – seed saving is now seen as agro-terrorism – biodiversity has been criminalized, there is no place for seeds or plants. The TPP controls are a violation of our constitution. They accuse us of *allergia nervosa* a pathological obsession for biologically true and pesticide free food .

Keep our farms and food GE Free -messages from the conference

Change now to ecological farming. Push for reliable and independent study into soils, research into the effects of GMOs and chemical use in agriculture and identify effects on our health.

Require government regulators:
-to enforce regulations and utilise the precautionary principle.
-to fully test agrichemicals including adjuvants, noted by Seralini as 1000x more toxic than the active principle (glyphosate in Roundup)

Ensure food sovereignty – save seeds and stop intellectual property rights over food crops, all flora and fauna, both in New Zealand and join with others overseas to prevent IPs.

Require compulsory labelling of GE food as well as Country of Origin labelling. We need New Zealand policy not global - those of FSANZ, Codex Alimentarius nor the Trans-Pacific Partnership Agreement.

Cultural traditions and indigenous practices contribute to agriculture, sustainability and health. The Treaty of Waitangi and its principles must be adhered to in agricultural policy.

Local Government can act where Central Government has not. Locally organised projects excellent for community building, local agriculture, food production, via common gardens and food forests. Education about growing, food and health is needed at all levels.

Long-term thinking and sustainability is so important to preserve intergenerational justice.

We need to focus on good quality exports to keep NZ's reputation or economic impacts may result.

Media should adopt a more educative role by media with less corporate backed criticism.

We must ensure healthy food production and food security into the future.

53% of American children now have a diagnosis of chronic disease.

Zen Honeycutt and Dr Michelle Perro on their recent tour asked audiences in New Zealand – if anyone in their family had asthma, ADHD and behavioural challenges, diabetes, autoimmune disease, diabetes etc - they were shocked at how many hands went up. They thought they were here to warn us.

‘We simply cannot let this poisoning of people and the planet for profit continue. Get active, get your council to ban the use of chemicals for weeding, buy organic in bulk, learn to cook, grow your own food without chemicals, look for alternatives to poisoned food. We all need to take responsibility and become leaders in this movement.’ MADGE

Dr Michelle Perro, is a paediatrician in California. In her 30 years as a paediatrician, she has seen children’s health decline dramatically. Over half US children are now diagnosed with a chronic disorder. Allergies are costing the US around \$25 billion per year, boys are more commonly affected and a new law now requires schools to stock epipens for anaphylaxis. Glyphosate causes gut inflammation. “What I do all day is treat children’s intestinal issues, these gut issues are connected to the demise in children’s health.” She prescribes an organic diet.

Zen Honeycutt, Founder of Moms Across America, mother of three sons, who suffered from life threatening allergies has radically improved her children’s health by changing their diets. Zen Honeycutt’s, group MAA tested breastmilk and found it was contaminated with Roundup. The highest level of Roundup was 1600 times greater than allowed in drinking water in Europe. She got Moms to ring the EPA to call for a ban on glyphosate. In 24 hours 10,000 mothers called the hotline.

Dr Michael Antoniou, Molecular Biologist at King’s College London. Co-author of the report "Roundup and Birth Defects".

US Moms report allergies are up 400% in our children. Asthma affects 1 in 8. Autism has increased 1500%

over the last 20 years. Over 20 million Americans are now suffering with auto-immune diseases. Diabetes in teens has quadrupled in ten years. Colitis in children has tripled and Crohn’s disease is up 79% in ten years. Cancer is the No1 killer of children in America today. **Our kids get better when they get off GMO’s and pesticides!**

See :- momsacrossamerica.com

Claire Bleakley reports back on the speaker’s main themes.

Dr.Perro discussed Glyphosate based herbicides which:-

- Lock up (chelate)- Calcium, manganese, zinc, cobalt, iron, etc.
- Inhibit cytochrome p450 detoxification system. Also involved with Vitamin D, cholesterol and sex hormones.
- Kill beneficial bacteria: promotes growth of pathogens.
- Impair sulfate synthesis and sulfate transport (Autistic Spectrum Disorders).
- Increase spraying due to resistance.
- Increase growth of plant pathogens (fungi/ mycotoxins).

Dr. Antoniou discussed Glyphosate based herbicides as endocrine disruptors. A long-term study on GE corn tolerant to glyphosate showed clear toxic effects, even at the **lowest dose**. Both industry; Monsanto, and academic independent studies showed liver and kidney damage and failure. Seralini’s life time study showed:-

- Liver and kidney damage lead to premature death, especially in males
- Testosterone/oestrogen imbalance suggesting endocrine disrupting effects.

-Unexpected increased trend in tumour incidence: endocrine mammary and testicular.

-Females: died prematurely almost invariably from mammary tumours (& pituitary dysfunction).

He gave New Zealand this warning:- GE food is coming in as animal feed, that escapes labelling laws, and glyphosate has been found in animal tissues and milk at high levels, though regulators were assured by industry that glyphosate is cleared from the body in a short time. The levels show accumulation that could lead to

endocrine and immune damage as found in animal studies. Based on available evidence and inadequacy of the tests requested by regulators, at present no GMO crop and food can be categorically stated as safe to consume, especially on a long-term, life-long basis. There is no scientific consensus on the safety of GE foods.

Grow, Buy and EAT ORGANIC cereal, oils, meat, dairy and all foods ASAP.

Restore gut bacteria with organic cultured foods: raw organic sauerkraut or probiotics. Support serving organic food at community centers and public events.

Have council members discontinue the use of Roundup /toxic chemicals on public areas.

Declare your town/school/ county/center “Roundup Free and GMO Free!”

-All slides/presentations available on gfree.org.nz & foodmattersnz.com

-GMO Myths and Truths **Earth Open Source: free download** www.earthopensource.org

-Contact Dr. Michelle Perro at perrom@sutterhealth.org

-www.momsacrossamerica.com - Go to Data for “Studies and Papers” and to “EVENTS” to host an event. [www.momsacrossamerica.com/glyphosate task force studies on glyphosate submitted to the epa](http://www.momsacrossamerica.com/glyphosate_task_force_studies_on_glyphosate_submitted_to_the_epa)

Thanks to everyone who came and especially Jodie Bruning and Marea Smith for helping host and organize these events.

TPPA threat to labelling

The TPPA threatens to remove our limited GE labelling, so it is even more important to retain and improve GE labelling to ensure choice. NZ supermarkets sell sprayed, imported, unlabelled, imported GE foods, from corn, canola, sugarbeet, cotton and soy used in processed food. These are in the form of oils, high fructose syrups, sugars, starches, soya lecithin, cotton linters, processing aids & additives. Roundup residues may also be found in grain, dairy products and potatoes.

Court battle to keep Northland GE-free .24 April 2015

GE Free Northland is appealing for help for Environment Court costs (incl. our legal counsel) to protect Northland's new Regional Policy Statement precautionary GE provisions. We need to raise \$20,000- so any donations, large or small, are greatly appreciated.

Background:Northland Regional Council has (as a result of hundreds of submissions from Northland District Councils, Iwi authorities and other ratepayers) reinstated the precautionary GE policy in the new Northland Regional Policy Statement, and identified GE as an issue of significance for Northland Iwi authorities and an issue of concern for Northland communities. However, Federated Farmers of NZ has lodged an appeal with the Environment Court, opposing all these things.

Federated Farmers is trying to undermine key environmental protections in our new Northland Regional Policy Statement, the overarching document for the next 10 years. President of Federated farmers is Dr William Rolleston, former Chairman of pro GE Life Sciences Network.

GE Free Northland together with other section 274 parties is opposing Federated Farmers appeal, we need to make a compelling case to the Environment Court to reject Federated Farmers vexatious appeal, and support our local councils and Northland mana whenua.

All financial support will help protect the precautionary GE provisions in the new Northland Regional Policy Statement. Our bank account details are as follows: GE Free (Northland) Inc account - ANZ Kerikeri 01 0382 0009202 00 Cheques can be posted to: GE Free Northland PO Box 1439 Whangarei 0140

"New Zealand should stay GE Free and be the seed basket of the world." Dr. Arpad Puztai Green Party witness during New Zealand's Royal Commission into Genetic Engineering 2000

Altered Genes, Twisted Truth

How the Venture to Genetically Engineer Our Food Has Subverted Science, Corrupted Government, and Systematically Deceived the Public.

Written by public interest attorney Steven Druker, who initiated a lawsuit that forced the FDA to divulge its internal files on GE foods, exposing how the agency had covered up extensive warnings from its own scientists about the risks, lied about the facts, and then ushered them onto the market in blatant violation of U.S. food safety law.

It reveals how the entire GE food venture has been dependent on fraud – how key misrepresentations have been dispensed by eminent scientists and scientific institutions eg U.S. National Academy of Sciences and U.K. Royal Society.

The book's importance is recognized by several scientists who have unstintingly praised it. World famous primatologist Jane Goodall wrote the foreword, hailing it one of the most important books of the last 50 years and stating: "I shall urge everyone I know who cares about life on earth, and the future of their children, and children's children, to read it. It will go a long way toward dispelling the confusion and delusion that has been created regarding the genetic engineering process and the foods it produces. . . . Steven Druker is a hero. He deserves at least a Nobel Prize."

UK celebrity chef Jamie Oliver is apparently fighting for healthy food in face of the TTIP another US trade agreement similar to our TTPA Jamie was recently assured by UK Business Secretary that his fears are unfounded, stating: 'Food is still on the negotiating table and that does mean technically anything can still happen.' However Jamie is reported to have joined with the Bill Gates Foundation who are well known for their corporate

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An amazing and inspirational look at the ecosystems of soils

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