Mr Paul Lindwall,
Presiding Commissioner
Regulation of Australian Agriculture Productivity Commission
Locked Bag 2, Collins Street East Melbourne Vic 8003

Dear Sir,

Submission to Productivity Commission

This submission specifically concentrates on

"Regulation of technologies and agricultural and veterinary chemicals"

Thankyou for allowing late submissions. Receiving only 300 submissions demonstrates the majority of farmers are not having a say in this commission, as most farmers would not even know this Commission was dealing with farm chemicals and GMO technology. Many groups in Queensland only read about this process in August 2016 and are struggling to get submissions in on time. However, in reading draft submissions, it is very concerning to view so many chemical company and industry submissions all driving the Productivity Commission to reduce regulations of farm chemicals and allow GMO technologies into Australia without any form of proper toxicology assessments or food safety assessments. It should be clear to all that the health of our families and communities is far more important than corporate profits and reduction of regulations to benefit large companies.

A wonderful opening statement came from the "USA Presidential Science Debate 2016"

Evidence from science is the surest basis for fair and just public policy, but that is predicated on the integrity of that evidence and of the scientific process used to produce it, which must be both transparent and free from political bias and pressure. It is a major concern that many Americans don't trust our scientific and regulatory agencies, and extremely unfortunate that there are valid reasons for this declining trust that must be addressed.... For example, the current FDA commissioner appointed by President Obama was a highly paid consultant for big pharmaceutical corporations, as Senator Sanders pointed out in opposing his nomination. In the case of Vioxx, the FDA approved a profitable pain reliever that caused up to 140,000 cases of heart disease, and even tried to silence its own scientists who discovered this deadly side effect...... The CDC actually accepts huge amounts of money from big pharmaceutical corporations, as an investigation by the British Medical Journal revealed. So many scientists, doctors and watchdog groups have flagged these clear conflicts of interest in the FDA, CDC and other federal agencies. http://sciencedebate.org/20answers

In Australia as in the USA, it seems that the key driver of reducing regulations for approving and increasing GMO's and heavy duty farm chemicals is coming primarily from the chemical and bio-tech industry and its supporters such as paid for scientists and farm lobby groups who are not speaking to their grass roots members. Most of the hierarchy of these groups have no scientific knowledge in soil or plant biology or human health and are certainly not honestly representing the members (few as they are) of their groups as none of them have

actually told the members the truth. If they would like the truth about the chemicals and GMO's, they can simply ask an independent scientist such as Dr Judy Carman (Australian) or emeritus professor Don Huber. Dr Huber has been researching and solving soil and plant diseases for 50 years working for the USA government, Universities, farmers and corporates. There would not be a more valuable human resource in the world for assessing the impact of GMO's and glyphosate. And these state and Australian government bureaucrats have probably never heard of Dr Don Huber or Dr Judy Carman. *Dr. Huber teaches courses on anti-crop bioterrorism and serves as a consultant on biological weapons of mass destruction and emerging diseases. He advises U.S. agencies on bioterrorism and biological warfare.* (http://www.nvlv.nl/downloads/Dr_Huber_bio.pdf)

In fact, I would doubt if any of the so called hierarchy of our farm lobby groups have actually conducted any due diligence about the danger of glyphosate or the impact of GM crops and products on the soil, plants, biodiversity or even animal and human health. The bureaucrats probably asked their local reseller of GM seeds and chemicals, how safe they actually are and that was the extent of research. Or maybe they went on the internet and googled GM crops and found all the anti-science/ pro gm material posted by industry employed scientists and GM companies. In general many bureaucrats are very lazy and will not undertake real research.

In Australia, we are just beginning to look seriously at GM products with bio-tech employed scientists and the danger of glyphosate on our human gut health. Scientists who are undertaking research on sugar cane, bananas or any other direct food crop will need to take a good hard think about how to undertake the animal and human feeding trials as they will be in line for massive law suits if families become sick or diseased from these products. Remember, not one GM product has been proven safe with long term toxicology studies, using animals or humans. In fact, no true independent science has shown positive results in relation to GMO's.

However, some "clowns" around the industry repeat the line about the USA has been undertaking the most successful long term (human eating) GMO trial in history. This so-called trial has no scientific basis at all, in fact, it is anti-science. If it is a trial, then where is the (control cohort and replications) comparison without GM or glyphosate in the human diet. Where is the toxicology data demonstrating safety? Monsanto MD Aus and NZ, Daniel Kruithoff is good at spruiking in June 2015,

GM crops have a 20-year record of safety and almost 2,500 independent, global scientific reviews and approvals of genetically modified organism (GMO) crops have verified their safety. Globally, GM crops have been found to be safe for growing and importing in more than 60 countries including the European Union

https://www.theguardian.com/science/2015/jun/12/right-of-reply-monsanto-responds-to-the-undercurrent-video

The web blogs and newspapers are full of this garbage, all being developed by the pro GM and chemical lobby to denigrate the true ethical scientists. As an example, the best known PRO GMO scientist/ spruker in the USA is Kevin Folta. Folta is but a mere child in years and lacks real life experience to understand anything chronic or long term to do with animal or human health.

This shows just how potentially inept the USA FDA regulators may be with industry representatives approving products and potentially ignoring safety testing protocols. Now, in Australia, we have a top highly credentialed scientist, Dr Judy Carman, who has the skills and qualifications to undertake long term health and safety research on all our GM products and she is being sidelined by paid for industry scientists and ignorant academics.

"Dr. Judy Carman has a Bachelor of Science, an Honours Degree in Organic Chemistry, a PhD in Medicine in the field of nutritional biochemistry and metabolic regulation, and a Master of Public Health specializing in epidemiology and biostatistics." http://gmojudycarman.org/about-us/

She alone is qualified to fully measure the impact of GM and glyphosate on animal and human health. However, scientists and administrators from FSANZ are also on the pro GM bandwagon and also criticise anything which Dr Judy Carman says, even though FSANZ reports have no transparency as to what qualifications their own critical scientists actually have. Shocking example of blatant mis-use of power for personal and public humiliation of top scientists. This is professional bullying at its worst and needs to be outlawed. http://www.foodstandards.gov.au/consumer/gmfood/Pages/Detailed-commentary-.aspx

Dr Carman was funded to undertake the only long term feeding trial of GM vs non GM feed with pigs and funded by the Western Australian government. http://gmojudycarman.org/wp-content/uploads/2013/06/Clear-English-explanation-of-the-study-for-website-11Jun13.pdf

We found that the level of severe inflammation in stomachs was markedly higher in pigs fed the GM diet. Pigs on the GM diet were 2.6 times more likely to get severe stomach inflammation than control pigs. Males were more strongly affected. While female pigs were 2.2 times more likely to get severe stomach inflammation when on the GM diet, males were 4 times more likely. These findings are both biologically significant and statistically significant.

Now, that report showed it is essential to undertake further and more detailed toxicology studies to know how harmful these products are for humans. Even better was the response

from Dr Carman to all the criticisms which were unfounded, that could be called constructed lies to hide the truth.

http://gmojudycarman.org/reply-food-standards-australia-new-zealand-gmo-diet-pigstudy/

The staff of the FSANZ simply did not read or understand the report, made up many issues within the study report and statistics and ignored all of Dr Carman's responses in order to denigrate Dr Carman's study and further the pro gmo claims of no harm. In fact Dr Carman demonstrated how the FSANZ had misread and ignored points in the report. Now this simple issue calls for a full enquiry into the study and the FSANZ responses, lies and public nuisance of not reporting the truth. These senior administrators and so-called scientists at FSANZ are the reason we have GMO's being approved within Australia without any responsibility for animal or human health. Even when harm is demonstrated, they create a cover-up of their own irresponsible actions.

Until now, corrupt people can hide behind the name FSANZ and do whatever they wish to do without answering to anyone. That is government bureaucrats have probably never done any due diligence either to understand the issues around GM or glyphosate. Maybe, they do not have the knowledge to comprehend the chronic toxicology issues. *Dr. Carman has written numerous scientific papers and submissions, advised government and non-government organisations and presented to the New Zealand Royal Commission into Genetic Modification in 2001. She is also a founding member of the Scientific Advisory Council of the Sustainable Food Trust, based in the UK. She received grant money from the Government of Western Australia to conduct some of the first long-term, independent animal feeding studies into the safety of GM crops with human health end-points. http://gmojudycarman.org/about-us/*

And then the pro gmo lobby established a number of websites to demoralise any scientist or individual who has demonstrated the link between lack of safety and gmo products. Maybe my name will join the list as well. This site is run by a pro gmo activist journalist and is called the "genetic Literacy project", and authored by Jon Entine, who also has zero scientific qualifications in human or animal toxicology or any science for that matter. https://en.wikipedia.org/wiki/Jon_Entine

The following article by Jon Entine has had nearly 1,000,000 views and is simply playing with the truth. "The Debate About GMO Safety Is Over, Thanks To A New Trillion-Meal Study

Although there have been more than <u>2,000 studies</u> documenting that biotechnology does not pose an unusual threat to human health and genetically modified foods are as safe or safer than conventional or organic foods, questions remain in the minds of many consumers."

http://www.forbes.com/sites/jonentine/2014/09/17/the-debate-about-gmo-safety-is-over-thanks-to-a-new-trillion-meal-study/#3bd5d6e1ca93

However, Mr Entine and the pro-gmo lobby group have not noticed that most of these studies quoted are simply production studies and not studies assessing the toxicology of the feeds on animals or humans. Going by this record, one would certainly not hold the USA up as successful if we consider the data following both technologies, we would rather live in any other country to stay healthy.

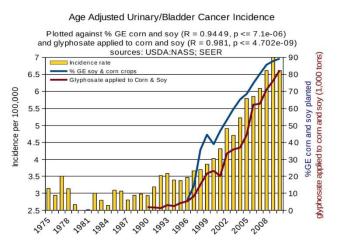
The scare tactics that the industry and scientific bodies are using is that farmers in Australia should get ahead of America and develop and take on GM crops as everyone will be ahead of the race. However, one of the world's top agronomic plant pathologist and soil scientists, Emeritus Professor Don Huber, recently commented in Rockhampton, Australia, "Why would we as farmers be racing towards an illogical goal of lower yields, higher chemical loads, poor biodiversity in soil and in the paddock, reduced profitability and producing a crop the world is moving away from".

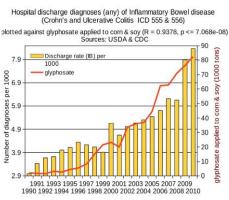
There is no race to gm as it is not possible at this time to produce a crop that is higher yielding than conventional crops, as no GM crop has ever shown consistent long term yields, because the GM plant is using excessive amounts of energy to produce a bt toxin or a glyphosate or other chemical resistance.

However, in the USA, these products have been used in unison for some 20 years with wonderful examples of just how potentially dangerous these products actually are. In the report, "Genetically Engineered Crops, Glyphosate and the Deterioration of Health in the United states of America", Dr Nancy Swanson has demonstrated the very high correlation of the introduction and increase of GM and glyphosate farming to the increase of some 22 major diseases of human populations.

A huge increase in the incidence and prevalence of chronic diseases has been reported in the United States (US) over the last 20 years. Similar increases have been seen globally. The herbicide glyphosate was introduced in 1974 and its use is accelerating with the advent of herbicide-tolerant genetically engineered (GE) crops. Evidence is mounting that glyphosate interferes with many metabolic processes in plants and animals and glyphosate residues have been detected in both. Glyphosate disrupts the endocrine system and the balance of gut bacteria, it damages DNA and is a driver of mutations that lead to cancer.........

The Pearson correlation coefficients are highly significant (< 10-4) between the percentage of GE corn and soy planted in the US and hypertension (R = 0.961), stroke (R = 0.983), diabetes prevalence (R = 0.983), diabetes incidence (R = 0.955), obesity (R = 0.962), lipoprotein metabolism disorder (R = 0.955), Alzheimer's (R = 0.937), Parkinson's (R = 0.952), multiple sclerosis (R = 0.876), hepatitis C (R = 0.946), end stage renal disease (R = 0.958), acute kidney failure (R = 0.967), cancers of the thyroid (R = 0.938), liver (R = 0.911), bladder (R = 0.945), pancreas (R = 0.841), kidney (R = 0.940) and myeloid leukaemia (R = 0.889). The significance and strength of the correlations show that the effects of glyphosate and GE crops on human health should be further investigated.





http://www.organic-systems.org/journal/92/JOS_Volume-9_Number-2_Nov_2014-Swanson-et-al.pdf

Now the anti-science/ pro-gm gang will say, "correlation is not causation" and yes agreed it is not proof unless it is a near perfect correlation as Dr Swanson's report demonstrated. If our true independent scientists (not FSANZ or OGTR) undertook a similar study in Australia, the correlation would probably be similar, but not as dramatic, as GM is still coming to Australia. Even after reading this research, one of the gm promoters, Kevin Folta still wrote a ridiculous comment to cover the correlation.

Folta <u>says</u>, "After 17 years no epidemiological trends have been established between GM and health concerns." But this is clearly a reflection of his lack of scientific understanding. To date, there is not a single human epidemiological study. To say there are no epidemiological trends between GMOs and health is actually impossible to confirm since GMOs are not labeled. And as Consumer Reports <u>says</u>, "Saying there's no evidence of harm isn't the same as saying they've been proved safe." http://www.gmwatch.org/news/latest-news/15949-the-truth-according-to-kevin-folta

The problem is that the shouting out from the bio-tech scientists who are scared of losing their milking cow (GM and glyphosate) and industry bloggers are calling these scientists (anti-science activists). Well from an honest point of view, farmers are the true activists who should be learning the truth about GM and glyphosate based science. However farmers are generally busy doing the job of growing food and leave the research up to the scientists and farm lobby groups. Ethics have gone out the door, fewer farmers are even members of industry groups today and even fewer know what the lobby groups are actually doing. It is becoming difficult to trust these elected representatives or the employed staff as they have probably not undertaken due diligence on these critical issues either. Some smart journalists are beginning to ask questions such as the "Undercurrent" news show.

https://www.theguardian.com/science/video/2015/jun/04/undercurrent-monsanto-roundup-pesticide-herbicide-who-carcinogenic-video?CMP=share_btn_tw

The Undercurrent delves into the world of mass agriculture to ask how one company has such control over food supply. The name Monsanto was once synonymous with agent orange, but today it's the dominance of the widespread herbicide, Roundup which helps keep the company on top. But is the world Health Organisation's claim that Roundup 'probably' causes cancer, cause for concern?

The following was a response from Monsanto MD Aus and NZ, Daniel Kruithoff, with loads of throw away lines and big unsubstantiated numbers creating a general aura of safety. However, not one suggestion that none of the studies look at long term safety testing for toxicology and certainly nothing about the many negative studies. Remember it only takes one negative study on GMO's to harm our families and communities and Dr Judy Carman has already demonstrated this in 2013.

https://www.theguardian.com/science/2015/jun/12/right-of-reply-monsanto-responds-to-the-undercurrent-video

GM crops are the most scientifically tested food in human history and questioning their safety only undermines decades of independent research and the integrity of the world's

most sophisticated regulatory systems, including Australia's Office of the Gene Technology Regulator.

https://www.theguardian.com/science/2015/jun/12/right-of-reply-monsanto-responds-to-the-undercurrent-video

And onto glyphosate - Glyphosate is a broad-spectrum herbicide which works by inhibiting an enzyme found in plants. There are around 500 products containing glyphosate registered for use in Australia. Glyphosate has been registered for use for over 40 years. http://apvma.gov.au/node/13891

Swanson reported in "Genetically engineered crops, glyphosate and the deterioration of health in the United States of America" in 2014

A huge increase in the incidence and prevalence of chronic diseases has been reported in the United States (US) over the last 20 years. Similar increases have been seen globally. The herbicide glyphosate was introduced in 1974 and its use is accelerating with the advent of herbicide-tolerant genetically engineered (GE) crops. Evidence is mounting that glyphosate interferes with many metabolic processes in plants and animals and glyphosate residues have been detected in both. Glyphosate disrupts the endocrine system and the balance of gut bacteria, it damages DNA and is a driver of mutations that lead to cancer. http://www.organic-systems.org/journal/92/JOS_Volume-9_Number-2_Nov_2014-Swanson-et-al.pdf

Glyphosate has been the most used herbicide the world has ever possibly seen due in part to the connection between a group of gm crops and genetic traits which allows the crops to be sprayed with a chronic toxic chemical called glyphosate and not harm the crop. Even after the World Health Organisation (WHO) declared, Glyphosate to be a probable human carcinogen, the APVMA ignored at the WHO report continued to ignore any real science or implications for human health in Australia. Instead the regulators commented-

The IARC assessment looked at the intrinsic toxicity potential or 'hazard' of the chemical glyphosate as a cancer-causing agent only. (only causing cancer as if it is not important)

...... Agents classified by IARC in the highest category...... "alcoholic beverages, consumption of processed meat, solar and ultraviolet radiation (ie sunlight), engine exhaust (diesel), post-menopausal oestrogen and oestrogen-progestogen therapy, outdoor air pollution, occupational exposure as a painter, and soot and wood dust". http://apvma.gov.au/node/13891

Lets look at the most basic comparison from APVMA and compare this ridiculous stupidity to the NHMRC websites. Now, knowing that a glass of wine or single glass of <u>alchoholic beverage</u> each day is actually good for our health. So, our request is to staff of the APVMA to demonstrate the safety of glyphosate, please follow the guidelines - Australian Alchohol Guidelines state that men should consume - "No more than 4 standard drinks a day on average. And no more than 6 standard drinks on any one day.* One or two alcohol-free days per week...... 1 standard drink is 375ml Mid Strength Beer 3.5% Alc./Vol "

http://www.health.wa.gov.au/docreg/Reports/Risk/Alcohol/Australian alcohol guide.pdf

In order to demonstrate the safety of glyphosate and compare it to safety of alchohol, staff and scientists of APVMA will need to establish a long term trial where group 1 consume (drink) approximately 4 x 375ml of glyphosate (450g/l active) per day, group 2 consume 4 x 375 standard beers and group 3 are the control with no consumption. However, to ensure

accuracy and credibility, it will be a blind trial with no participant knowing which group they are in. How many staff would trust their own science reports now and nominate themselves for the program, to stay healthy. (need to assess the active ingredient level to ensure accurate comparison and establish a control cohort with replications).

The Australian regulatory agency......, the <u>Australian Pesticides and Veterinary Medicines Authority</u>(APVMA), concluded in 2013 that it has no data suggesting that glyphosate products registered in Australia and used according to label instructions present any unacceptable risks to human health, the environment and trade. The APVMA states: "The weight and strength of evidence shows that glyphosate is not genotoxic, carcinogenic, or neurotoxic." https://www.theguardian.com/science/2015/jun/12/right-of-reply-monsanto-responds-to-the-undercurrent-video

While IARC identified that glyphosate may pose a carcinogenic risk, it is the role of regulators to determine whether products used according to label instructions could result in a level of exposure that poses an unacceptable risk to people...... Currently, the APVMA is evaluating the IARC report and other contemporary scientific assessments as part of an established chemical review nomination process. http://apvma.gov.au/node/13891

It has taken APVMA some 18 months to assess evidence and it still has not changed its assessment. Therefore, families may be dying and suffering from disease caused by glyphosate toxicity when the regulator has said it is safe when it obviously is not safe for human consumption, if you follow label instructions. There is no monitoring of glyphosate in food, so how do we know if we are being harmed. Glyphosate has been found in barley and wheat seeds in Australia and also in multiple food products in America. It is also being found in large quantities in farming soils in Australia by GRDC researchers. Well, Mr Kruithoff may have been half correct because the regulator simply picks the data it wants to accept, however in 2015, the WHO report changed everything and the regulator should have done the same.

The latest study published by Washington State University research professor Charles Benbrook finds that the use of herbicides in the production of three genetically modified herbicide-tolerant crops — cotton, soybeans and corn — has actually increased. This counterintuitive finding is based on an exhaustive analysis of publicly available data from the U.S. Department of Agriculture's National Agriculture Statistics Service. Benbrook's analysis is the first peer-reviewed, published estimate of the impacts of genetically engineered (GE) herbicide-resistant (HT) crops on pesticide use. http://www.gmoevidence.com/prof-charles-benbrook-gm-crops-increase-herbicide-use/

Dr Charles Benbrook holds a bachelor's degree in economics from Harvard University (1971), as well as an M.A. (1979) and a PhD (1980) in agricultural economics from the University of Wisconsin-Madison Benbrook spent 18 years (1979-1997) working in Washington, DC, on agricultural policy and regulation. During this time, he served for two years (1981-1983) as the director of the Subcommittee on Department Operations, Research, and Foreign Agriculture of the U.S. House of Representatives. He also directed the National Academy of Sciences' Board on Agriculture from 1984 to 1990..... In 2015, Benbrook and Philip Landrigan co-authored an article in the New England Journal of Medicine urging the United States government to conduct new assessments of the safety of alyphosate, which had been declared a probable human carcinogen earlier that year.

https://en.wikipedia.org/wiki/Chuck_Benbrook#cite_note-NYT-3

In 2014, Agriculture Victoria undertook a review of the moratorium on GM crops and looked at impacts on markets Chapter 4 Impacts on markets (2014)

http://agriculture.vic.gov.au/agriculture/innovation-and-research/biotechnology/genetically-modified-crops/moratorium-on-gm-canola/review-of-the-moratorium/panel-report-to-the-minister-for-agriculture-2007/chapter-4-impacts-on-markets

The Panel also received a large number of campaign letter submissions from Japanese citizens that stated:

- The introduction of GE [genetically engineered] canola to Australia would result in unacceptable risks to Australia's key export markets, such as Japan, to say nothing of the risk to consumer health and the environment. (sub. 252, p. 1)
- Costs incurred for segregation in the bulk handling system are around a few dollars per tonne, according to GrainCorp (sub. 104). This amount is consistent with the Foster (2006) estimate of approximately \$2 per tonne.
- In his Western Australian study, Foster (2006) concluded that most of the extra cost would be borne on-farm (85 per cent) and that a non-GM grower, to cover costs, would require an additional 4–6 per cent of the farmgate canola price
- ACIL Tasman (2007a) supported this finding, asserting that a non-GM grower would need to secure a price advantage of approximately \$14 per tonne to justify the segregation and identity preservation costs.

GM CANOLA IMPACT SURVEY INFORMATION FOR GROWERS, ADVISERS AND INDUSTRY (GRDC 2010)

- In total, 1346 farmer surveys were conducted from 2008 to 2010. Of these, 968 surveys were with non-GM farmers and 378 with GM farmers
- On average the cost of weed control using GM herbicide tolerant canola was higher than that of alternate non GM canola weed management programs.
- The major barrier to adoption of GM canola is the perceived lack of economic value derived from the Roundup Ready® canola technology package (i.e. the cost of access + the cost of weed control + yield + farm gate grain price + logistics costs) when compared to the established economic value of the alternate non GM weed control management system options.

Research Journalism Volume 1 | Issue 1 Article 2 2011 GM Issues Investigated Lisa M. Roth Edith Cowan University, Iroth0@our.ecu.edu.au

Recommendations

- Australian Government to hold a Royal Commission into the role and implementation of the OGTR and FSANZ in relation to GM crops and human food products.
- Australian Government to immediately move to assess the safety of glyphosate based farm poisons and implement a new farming technologies program for industry bio-security.
- Australian Government to review and reform the approval process for biotech crops using known science today.
- The FSANZ and OGTR should more rigorously evaluate the potentially harmful effects of GE crops and linked chemicals before commercialization, to ensure the safety of humans and the environment.
- Australian Government to support and encourage cover cropping, new farming options and strategic tillage best management practices to prevent weed resistance.
- Australian Government to undertake a full assessment of food being sold in stores in Australia to measure levels of glyphosate and other chemicals (not being done by FSANZ).
- That a full assessment be undertaken to monitor all imported foods.
- Australian Government to educate and encourage farmers to adopt nonchemical strategies for long-term weed control.
- Australian Government must dedicate research dollars to developing alternatives for sustainably managing herbicide-resistant weeds
- Australian Government must request that GM manufacturers donate all funds required to fully safety test new and existing GM crops under long term feeding trials. (at no govt cost)
- Australian Government to arrange the most appropriate universities in regional Australia to undertake all necessary long term animal feeding trials and other research as required.
- The Precautionary principle should be applied to all current GM crops and any future applications including new breeding techniques (CRISPR) in the future.
- All food with any GM content should be labelled as GM.

With Thanks, Mick Alexander for GBP Qld