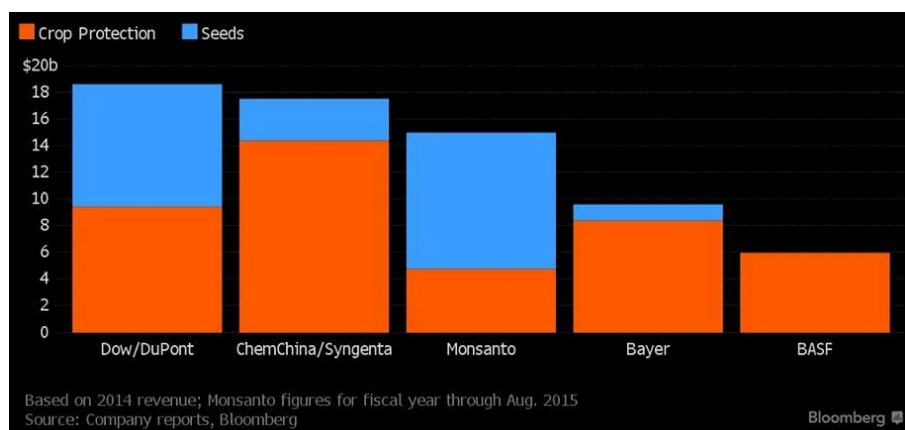


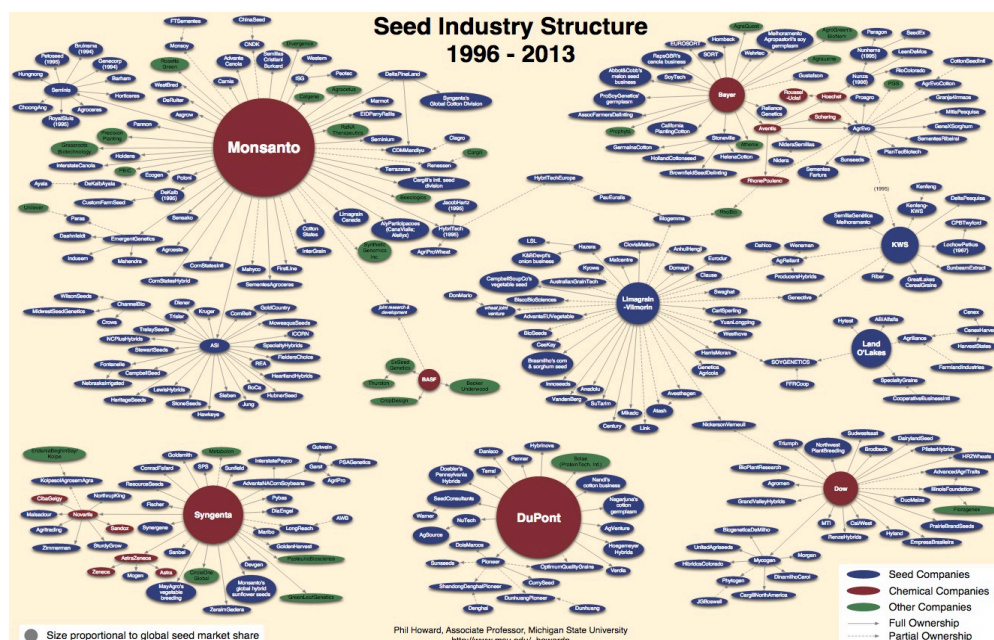
Brief for meeting at Productivity Commission 4.30pm Wednesday, June 15
Level 12, 530 Collins Street, Melbourne VIC 3000 P. 03 9653 2198
Bob Phelps and Fran Murrell meet Commissioner Lindwall and colleagues

1. State's rights to have GM & GM-free Zones on marketing grounds exist under a COAG agreement and are granted under a principle negotiated under Section 21 of the Gene Technology Act 2001. These powers are an appropriate response to market failure and cartel control.

Industrial commodity monocultures are not 'feeding the world', with a billion people starving, a billion obese and global commodity gluts (e.g. milk) now common. Food speculation sends food where it is most profitable, not where most needed. Unaffordable and scarce food will provoke more social unrest around the world, like that in 2009 and now in Venezuela. The global food system is broken and unstable at its core so a new model based on food sovereignty and agro-ecology is needed now. With food imports sky-rocketing and local producers going out of business, Australia is vulnerable.



If Bayer takes over Monsanto, a cartel of just four huge conglomerates will own and control most commercial seed and agricultural chemical supplies, key inputs for global industrial food and fibre production globally. The companies already promote their collective interests through cross-licensing.



The fertilizer industry and supermarket duopoly also distort markets so farmers and other small businesses in supply chains have little bargaining power. They are rarely price makers rather than price takers and this is not in their interests, nor in the public interest.

¹ <https://msu.edu/~howardp/seedindustry.pdf>

2. CropLife Australia is: “the peak industry organisation representing the agricultural chemical and biotechnology (plant science) sector”² and a member of a global network.³ It trumpets that: “Our member companies contribute more than \$13 million a year on stewardship activities to ensure the safe and effective use of their products.” But that’s just 0.074% of the industry’s annual take of \$17.6 billion.⁴ It’s members are the companies and their allies and the board consists of company representatives.

Their local allies include AusBiotech, Grain Growers, PGA, ABCA, NFF, and state farm groups (all with declining numbers of farmers as members). These are agents for the seed, agrochemical, GM and fertilizer companies, acting as public relations fronts for the cartel. They do not represent the interests of most farmers, food supply chains or shoppers. The supermarket duopoly further concentrates control.

Most of Australia’s 134,000 farmers remain GM-free and want to remain so. Petitions to the WA government (to repeal the GM Crops Free Areas Act 2003) and to the SA government (to lift the moratorium on GM canola) have found little support. In South Australia, for instance, the Lucerne seed industry and the Wine industry want to remain GM-free as the state’s reputation is a key element in their successful marketing. KI Pure Grain, Paris Creek organic/biodynamic dairy and 4 Leaf flour milling are also key supporters of the GM-free state.

3. GM canola contamination can impact markets adversely. In January 2014, the Tasmanian Government also extended its moratorium on GM crops until 2019. GM canola seed contamination can remain up to 16 years (OGTR) so the Tas government was mindful of GM canola contamination at GM canola trial sites closed in 1999. A GM Canola Trial Sites Audit of all 53 remaining sites was last made in May 2014. “Volunteer canola plants at various stages of development were found at 3 former trial sites.”⁵

Farmer Protection laws are needed, to place a small levy on all GM seed sales, to enable automatic payments to be made to those landholders or others who suffer additional costs, economic loss or damage as a result of GM contamination on farms and in supply chains. Steve Marsh, the certified organic grower in WA who was decertified after his neighbour’s GM canola blew onto his farm, exemplifies the acute problems of GM contamination. Fifteen tonnes of GM canola was also spilt on a roadside adjacent to the farms of 12 WA growers who had elected to remain GM-free. Governments decided in 2001 that the courts would settle disputes about GM contamination but litigation is clearly not a realistic option for growers to seek and secure redress.

4. Substantial premiums are earned for GM-free canola yet coexistence does not work well. The GM seed companies move their liability onto their licensees, through contracts and industry guidelines.

Many markets have zero tolerance for GM contamination so grain handlers like CBH, and the organic industry, rightly operate zero tolerance systems or lose their export sales. Darren West MLC’s statement to the West Australian Parliament on December 2 2015 recounted his personal experience of delivering his GM-free canola to a silo and having it down-graded to GM.⁶

It confirms that while CropLife and others vilify organic certifiers and growers for having zero tolerance for any GM contamination, Co-operative Bulk Handlers (CBH) sets the same zero tolerance standard for their export canola segregation. At CBH silos, GM-free canola is often down-graded and co-mingled with GM to remove any chance of any GM contamination as it would destroy premium GM-free markets in Europe and elsewhere which buy the vast majority of WA’s canola production.

Despite the GM industry’s constant claims that the industry has a 0.9% tolerance for GM contamination, CBH actually has zero tolerance for GM canola in premium GM-free exports. At the Avon silo, Mr. West’s deliver of non-GM canola was down-graded to GM as: “one of the samplers has accidentally thrown a bucket of GM canola on top of your load of non-GM canola.” He proposed to: “remove the GM canola from the top of my load of non-GM canola, because it was very easy to see as it was a very different colour.”

² <http://www.croplife.org.au/about-us/>

³ <https://croplife.org/about/global-network/>

⁴ CropLife Submission #14 to this inquiry

⁵ <http://dpiwwe.tas.gov.au/biosecurity/product-integrity/gene-technology/former-gm-canola-trial-sites-audit-reports>

⁶ Statement, WA Hansard P 9268

[http://www.parliament.wa.gov.au/Hansard/hansard.nsf/0/3F5B64603BCA3B2348257FCD000C238F/\\$file/C39%20S1%2020151202%20All.pdf](http://www.parliament.wa.gov.au/Hansard/hansard.nsf/0/3F5B64603BCA3B2348257FCD000C238F/$file/C39%20S1%2020151202%20All.pdf)

Though required to tip his truckload into the GM stack, he was still paid that week's \$58/tonne premium. The estimated cost, spread across all CBH growers, for downgrading that truckload alone was \$1,334. CBH staff also informed him that when trucks with two trailers of canola reach CBH receival sites, where one was GM and the other non-GM canola, both trailers must be tipped on the GM pile. Again, the grower is paid a premium of up to \$70/tonne for the downgraded non-GM canola.

Premium markets will not tolerate any GM canola at all so he informed the parliament that CBH has: "zero tolerance for contamination by GM canola in our canola stacks. If there is any risk at all that there could be any GM in a load of non-GM canola, that load must be tipped onto the GM stack and sold overseas at a \$58/tonne discount to the industry."

This hits all CBH's GM-free canola growers who are forced to subsidise the few who grow GM. Mr West calculates that the frequent failure of CBH's segregation systems creates losses to the grains industry that: "must run into hundreds of thousands of dollars", spread across the income of all grain growers.

Such downgrading to GM may also significantly inflate the proportion of GM canola that is claimed to be produced, making the GM part of the canola industry appear much bigger than it really is.

Mr West's account, and our assertion that CBH has zero tolerance for GM canola in its GM-free segregation is confirmed in CBH's Delivery and Warehousing Terms, Current From 30 September 2014, which include the following clause:

4 WARRANTIES

4.1 You represent and warrant that:

4.1.10 none of the Grain in a Delivery is a Genetically Modified Organism (unless declared in writing to, and approved in writing by, CBH before the Delivery enters the Site);

A new canola market has opened recently with Victoria's high oleic acid (HOA) canolain high demand for fast food frying. It earns farmers huge premiums over ordinary canola varieties.⁷ The premium for GM-free HOA is \$118/tonne while the Genetically Manipulated (GM) Roundup Ready types of HOA earn just \$30/tonne extra. That's a massive difference of \$88/tonne for GM-free, in response to customer demand.

5. ABCA claims GM canola was 30% of the WA crop last year. With SA and Tasmania excluded, even on these industry figures, the GM share of the national canola crop would be under 20%.



GM canola growth in Australia

Herbicide tolerant genetically modified (GM) canola has been grown in New South Wales and Victoria since 2009 and in Western Australia since 2010. The tables below provide information regarding the hectareage for each year, a state-by-state breakdown and the percentage of GM canola grown in each state as well as nationally.

Total GM Canola By Year (hectares)

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
| NSW | 13,930 | 23,286 | 28,530 | 40,324 | 31,573 | 52,000 | 51,870 |
| VIC | 31,186 | 39,405 | 22,272 | 19,012 | 21,232 | 37,000 | 47,137 |
| WA | | 86,006 | 94,800 | 121,694 | 167,596 | 260,000 | 337,527 |
| National | 47,125 | 150,707 | 147,613 | 183,042 | 222,414 | 349,000 | 436,534 |
| Total Area of Canola (GM & non GM) | 1,165,000 | 1,390,000 | 1,590,500 | 1,815,000 | 2,480,000 | 2,480,000 | 2,000,000 * |
| % GM Canola | 4% | 11% | 9% | 10% | 9% | 14% | 22% * |

Total GM Canola By State (%)

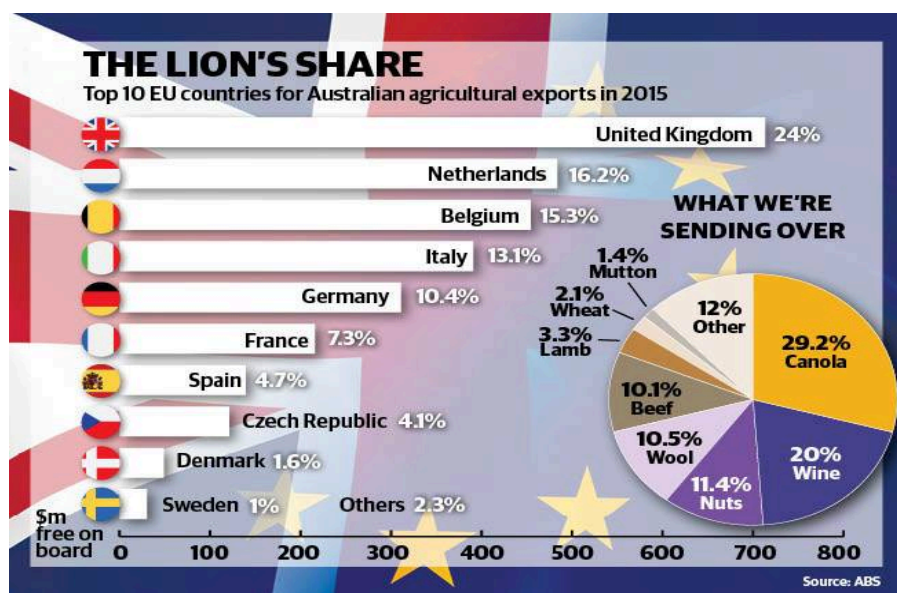
| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|--------------------|------|------|------|------|------|------|-------|
| NSW | 6% | 8% | 7% | 5% | 5% | 9% | 11% |
| VIC | 13% | 16% | 6% | 3% | 5% | 9% | 13% |
| WA | 0% | 10% | 12% | 13% | 14% | 21% | 30% |
| National GM Canola | 4% | 11% | 9% | 10% | 9% | 14% | 22% * |

* The 2015 total area figure represents those states that allow GM canola to be grown (WA, VIC and NSW only)

Source: Australian Oilseeds Federation and Monsanto Australia

⁷ Weekly Times, Healthy canola in demand, June 1 2016.

6. Our GM-free canola exports to Europe were nearly 30% of total value in that market last year. It is a market that could easily be lost if GM contamination were detected.



8

7. Canada lost its European canola markets in 2003 when it began growing GM canola. Australia gained this valuable market, earning premiums of up to \$70/tonne over GM varieties since 2006.⁹

Many export shipments of conventional products have been rejected or down-graded as a result of GM contamination, so organics are even more at risk of rejection. For instance, exports from the USA were recently rejected, for being GM contaminated, in markets that wanted GM-free: wheat:^{10 11} corn:^{12 13} and hay:¹⁴

The National Grain and Feed Association, the North American Export Grain Association, and the National Oilseed Processors Association rejected Monsanto's new GM RR2X soybeans, tolerant to dicamba and glyphosate herbicides, due to non-approval in the EU and elsewhere. They could disrupt international trade without key regulatory approvals. Agribusiness groups estimate that grain traders had lost hundreds of millions of dollars in late 2013 when Chinese authorities rejected shipments of US corn containing Syngenta's unapproved genetic constructs.^{15 16}

8. Monsanto invested just \$20 million to kickstart Australian GM cotton R&D. Since then it has been earning monopoly profits from its customers from cotton R&D that Australian scientists have conducted at grower and taxpayer expense and: "more than 95 per cent of the Australian cotton crop is grown from CSIRO bred varieties."¹⁷ Cotton growers now pay \$315-\$401/hectare technology fee for Bollgard II seed and will be charged more for Bollgard III seed, just launched.¹⁸

Like its predecessors, Bollgard III is a response to Bt resistant caterpillars, an endless treadmill of attempts to counter evolutionary pressures that lead to ever more insect and weed resistance. A recent paper foreshadows: "the imminent deployment of three toxin (Cry1Ac, Cry2Ab, Vip3A) Bollgard 3 cotton, and examine aspects of resistance to its novel component, Vip3A, that we believe may impact on its stewardship."¹⁹

⁸ Mixed blessings of a Brexit, Weekly Times, May 25, 2016.

⁹ http://www.australianoilseeds.com/_data/assets/pdf_file/0017/944/Fast_Facts_2_-_Trade_Implications_GM_Canola.pdf

¹⁰ <http://www.dailymail.co.uk/news/article-2333381/GM-wheat-crops-America-facing-wheat-export-crisis-Europe-Japan-lead-way-rejecting-genetically-modified-crops.html>

¹¹ <http://www.producer.com/2013/06/gm-wheat-success-hinges-on-end-to-zero-tolerance/>

¹² <http://www.reuters.com/article/2014/10/06/syngenta-seed-farmers-idUSL2N0S12KF20141006>

¹³ <http://www.hellenicshippingnews.com/china-zero-tolerance-towards-mir-162-gm-grain-cargo/>

¹⁴ <http://www.globalresearch.ca/china-rejects-u-s-hay-exports-due-to-genetically-modified-alfalfa-contamination/5406063>

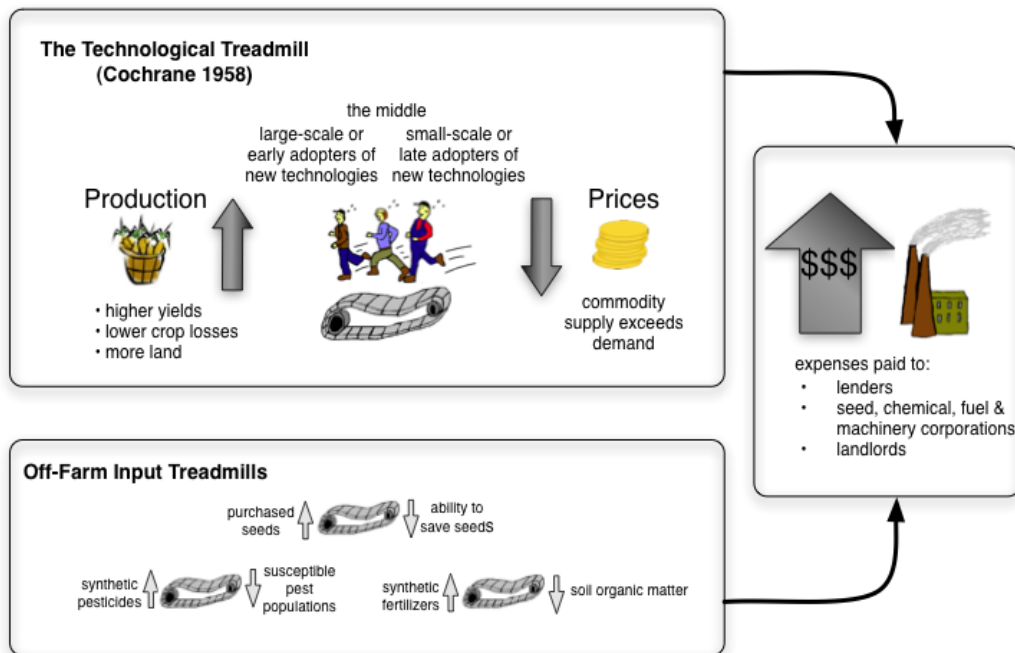
¹⁵ <http://www.marketwatch.com/story/grain-traders-rejecting-new-soybeans-from-monsanto-2016-05-02#:W5l2zl67dFSDA>

¹⁶ <http://www.monsanto.com/products/pages/roundup-ready-2-xtend-soybeans.aspx>

¹⁷ <http://www.csiro.au/en/Research/Farming-food/Innovation-and-technology-for-the-future/Gene-technology/Genetic-modification>

¹⁸ <http://cottonchoices.com.au/>

¹⁹ Bt resistance in Australian insect pest species Sharon Downes, Tom Walsh and Wee Tek Tay Current Opinion in Insect Science 2016, 15:78–

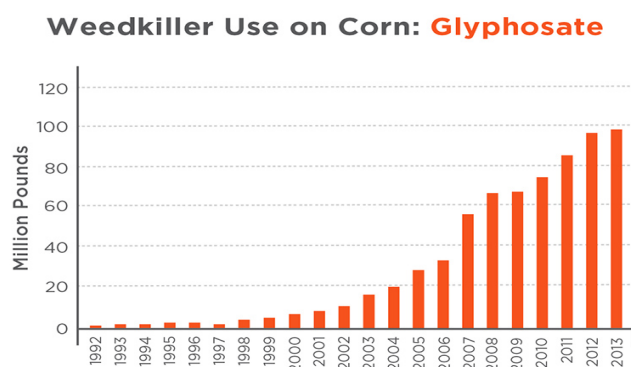


With many of its small farmers bankrupted and driven them to suicide by the high cost of GM cotton seed, chemical costs and crop failures, the Indian government has told Monsanto to reduce the royalties on GM cotton seed by 70% or leave the country.²⁰

"Corporations did not create seeds, and many challenge the trending legal and policy system that allows private companies to assert ownership over a resource that is vital to survival."²¹

9. It is claimed that CSIRO cotton has reduced pesticide use on cotton by up to 85% and herbicide use by about 52%. But such claims of percentage changes are baseless and unverifiable unless the data on which they are made is also publicly available. Also, such pesticide calculations do not include the Bt toxins made by the plants themselves, which the APVMA has registered as a pesticide. Yet Bt wreaks the same un-quantified collateral damage on other insects and soil organisms as many synthetic agrichemicals do.

One published example is weed killer use on US GM soy which increased dramatically.²² No such data appears in the public domain in Australia.



Yet the industry aligned PG Economics report on GM crops by Brookes and Barfoot admits:

"Even where national pesticide use survey data is available, it has limitations. ... (and) will likely produce biased and unrepresentative information about the level of herbicide or insecticide use that might reasonably be expected across the whole crop in the absence of GM technology ..."²³

²⁰ <http://www.gmwatch.org/news/latest-news/16808-india-urges-monsanto-to-accept-gm-cotton-royalty-cuts-or-leave-market>

²¹ SEED GIANTS VS. U.S. FARMERS A report by the Center for Food Safety & Save Our Seeds 2013

²² <http://ecowatch.com/2016/06/09/gmos-weed-killer-farmland/>

10. GM crop yields are consistently comparable to or worse than the best conventional varieties, so claims that GM is needed to “feed the world” are a myth. The bases for the calculation of claimed benefits to Australian farmers of GM crops are rarely published so cannot be validated. However, one report of Australian trials in 2011 found the Roundup Ready GM variety produced lower incomes per hectare and lower partial gross margins for growers than the three other varieties the Birchip Cropping Group (BCG) tested. Australian Farm Journal, April 1 2012, Pp 20&21, Canola types offer plenty of options for outstanding performance.

Overseas experience is similar. For instance, Heinemann et al compared US (GM) and Europe (GM-free) performance and found “Europe has learned to grow more food per hectare and use fewer chemicals in the process. The American choices in biotechnology are causing it to fall behind Europe in productivity and sustainability.”²⁴ The original paper is here.²⁵

11. Quality may also suffer with GM varieties. For instance, though 69% of Bukina Faso's cotton was GM in 2013, over the next two seasons it will return to zero as their cotton exports collapsed as buyers rejected poor quality fibre. “The inferior lint quality of Bt cotton has caused severe economic losses for Burkinabè cotton companies. The combination of shorter staples and lower lint quantities substantially undermines profits.”²⁶ Burkina Faso's cotton association seeks \$83.91 million compensation from Monsanto.²⁷ Winning back their top class reputation will not be easy.

12. Strong demand and premiums for GM-free and labelled food products in the USA is turning some farmers²⁸ and many food processors away from GM soy, corn, canola, cotton, sugarbeet and alfalfa. Imminent GM food labels also has many processors (Mars, ConAgra, General Mills, Chipotle) either promising GM labels²⁹ or flocking to be GM-free.³⁰

13. The global decline of 1% in GM production in 2015, reflects a general slide.³¹

Table 1. Global Area of Biotech Crops in 2015: by Country (Million Hectares)**

| Rank | Country | Area (million hectares) | Biotech Crops |
|--------------|----------------|----------------------------|---|
| 1 | USA* | 70.9 | Maize, soybean, cotton, canola, sugar beet, alfalfa, papaya, squash, potato |
| 2 | Brazil* | 44.2 | Soybean, maize, cotton |
| 3 | Argentina* | 24.5 | Soybean, maize, cotton |
| 4 | India* | 11.6 | Cotton |
| 5 | Canada* | 11.0 | Canola, maize, soybean, sugar beet |
| 6 | China* | 3.7 | Cotton, papaya, poplar |
| 7 | Paraguay* | 3.6 | Soybean, maize, cotton |
| 8 | Pakistan* | 2.9 | Cotton |
| 9 | South Africa* | 2.3 | Maize, soybean, cotton |
| 10 | Uruguay* | 1.4 | Soybean, maize |
| 11 | Bolivia* | 1.1 | Soybean |
| 12 | Philippines* | 0.7 | Maize |
| 13 | Australia* | 0.7 | Cotton, canola |
| 14 | Burkina Faso* | 0.4 | Cotton |
| 15 | Myanmar* | 0.3 | Cotton |
| 16 | Mexico* | 0.1 | Cotton, soybean |
| 17 | Spain* | 0.1 | Maize |
| 18 | Colombia* | 0.1 | Cotton, maize |
| 19 | Sudan* | 0.1 | Cotton |
| 20 | Honduras | <0.1 | Maize |
| 21 | Chile | <0.1 | Maize, soybean, canola |
| 22 | Portugal | <0.1 | Maize |
| 23 | Vietnam | <0.1 | Maize |
| 24 | Czech Republic | <0.1 | Maize |
| 25 | Slovakia | <0.1 | Maize |
| 26 | Costa Rica | <0.1 | Cotton, soybean |
| 27 | Bangladesh | <0.1 | Brinjal/Eggplant |
| 28 | Romania | <0.1 | Maize |
| Total | | 179.7 | |

* 19 biotech mega-countries growing 50,000 hectares, or more, of biotech crops

** Rounded off to the nearest hundred thousand

Source: Clive James, 2015.

²³ <http://www.pgeconomics.co.uk/>

²⁴ <http://www.globalresearch.ca/us-genetically-engineered-agriculture-is-outclassed-by-europes-non-gm-approach/5341518>

²⁵ <http://dx.doi.org/10.1080/14735903.2013.806408>

²⁶ <https://theconversation.com/lessons-to-be-learned-from-burkina-fasos-decision-to-drop-gm-cotton-53906>

²⁷ <http://www.reuters.com/article/us-cotton-burkina-monsanto-idUSKCN0X12FE>

²⁸ <http://gmwatch.org/news/latest-news/16364-us-farmers-returning-to-non-gmo-crops>

²⁹ <http://non-gmoreport.com/articles/big-food-companies-to-label-gmo-products/>

³⁰ <http://www.nongmoproject.org/find-non-gmo/search-participating-products/>

³¹ <http://www.isaaa.org/resources/publications/briefs/51/>

GM seeds' major markets in the top GM crop countries are saturated and other countries are resisting GM as its 2 single-gene traits in 5 broad-acre crops offer marginal benefits. GM peaked at 18 million growers in 28 countries on 180 million hectares.

In contrast there are over 1.2 billion hectares of GM-free cultivated farmland, 160 GM-free countries, and over 1 billion GM-free farmers. Over 90% of Australia's 134,000 growers remain GM-free and do not want their businesses threatened by a minority of GM enthusiasts.

14. R&D budgets for GM that were maintained on false promises of new traits are unravelling. No drought or salt tolerance, N fixation in grains, Omega 3, Golden Rice, etc. Old GM techniques can only cut-and-paste single gene traits - herbicide tolerance, Bt insect toxins and virus resistance. Monsanto's 2014 R&D pipeline³³ offers no new GM options of likely relevance for Australia.

15. GM and agrichemical industries are happy to be regulated when it suits their purposes. For instance, the push for the Low Level Presence of unapproved GM crops may be allowed through trade deals, provided the construct had been 'approved' under some regulatory regime, including the US self-regulatory system. This approach uses the lowest common denominator of assessment and regulation to facilitate the international, transfer, handling and use of GM organisms in contravention of the Cartagena Biosafety Protocol. The Protocol is a Treaty under the Convention on Biological Diversity, with 170 countries as parties, to which Australia, the USA and a few other grain exporters are not signatories.³⁴

16. With oil and phosphates depleting and the climate changing, an orderly transition away from industrial agricultural monocultures is urgently needed. The report "FROM UNIFORMITY TO DIVERSITY: A paradigm shift from industrial agriculture to diversified agroecological systems"³⁵ offers key messages and the UN's IAASTD report³⁶ could also serve as a robust model for the transition to food and fibre production systems that are more likely to be able to feed, house and clothe future generations permanently.

17. New GM techniques collectively called 'gene-editing' are still untried experimentally and commercially yet their proponents do not want them regulated as the old single-gene, cut-and-paste, genetic manipulation techniques are. Some of these new organisms will be created from scratch and have never existed in Nature before so rigorous regulation is essential.

We call for precautionary regulation under the present OGTR regime and under Food Standard 1.5 which covers Novel Foods 1.5.1, Genetically Manipulated Foods 1.5.2, and Irradiated Foods 1.5.3. As Labelling Logic³⁷ recommended, nano-materials in food and food packaging should also be regulated under this standard and that foods regulated under this standard should be labeled for 30 years from first being commercialised.

False claims of more speed, safety, cheapness, yields, etc. were made for earlier GM techniques and their products, and failed. The same claims are being advanced by industry PR machines without the necessary evidence being available.

Although we are critical of the existing regulations for their lack of precaution, for being 'science-based' rather than scientific, and for relying principally on the assessment of company data, we nonetheless urge that the new GM gene editing techniques and their products be rigorously assessed, regulated and licensed.

Friends of the Earth, New Technologies Campaign - Comments on gene-editing techniques

There is a global push by the biotechnology industry to deregulate a variety of new Genetic manipulation techniques and their products, often referred to by industry as 'gene editing' or 'new plant breeding

³² <http://www.isaaa.org/resources/publications/briefs/51/executivesummary/default.asp>

³³ <http://www.monsanto.com/products/pages/researchdevelopment-pipeline.aspx>

³⁴ <https://bch.cbd.int/protocol>

³⁵ http://www.ipes-food.org/images/Reports/UniformityToDiversity_FullReport.pdf

³⁶ <http://www.unep.org/dewa/Assessments/Ecosystems/IAASTD/tabid/105853/Default.aspx>

³⁷ [http://www.foodlabellingreview.gov.au/internet/foodlabelling/publishing.nsf/content/48c0548d80e715bcca257825001e5dc0/\\$file/labelling%20logic_2011.pdf](http://www.foodlabellingreview.gov.au/internet/foodlabelling/publishing.nsf/content/48c0548d80e715bcca257825001e5dc0/$file/labelling%20lo gic_2011.pdf)

techniques'. However, if these techniques were to be deregulated in Australia before being approved in key export markets the market impacts could also be catastrophic.

The New Zealand Government will regulate these techniques as GM. It was in recognition of these potential market impacts that the New Zealand Government has said it will regulate the techniques and their products as GM. New Zealand's Environment Minister Dr Nick Smith said:

"The rationale for our cautious approach is that New Zealand is an exporter of billions of dollars of food products and we need to be mindful of market perceptions as well as the science. We will continue to monitor global rules around the regulation of GMOs and adapt our system over time in line with international developments."ⁱ

Many of Australia's key trading partners also have zero tolerance policies for unapproved GMOs:

"There is no flexibility for unauthorised GMOs - these cannot enter the EU food and feed chain under any circumstances." Markos Kyprianou, EU Commissioner for Health and Consumer Protectionⁱⁱ

Growing GM crops before they have been approved for use in export markets continues to result in punishing consequences. Many of Australia's key trading partners have zero tolerance policies for unapproved GMOs and regularly reject shipments or impose strict testing requirements if unapproved GMOs are detected.

Were Australia to clear new types of GM crops for growing before they were approved offshore, that could be very costly for food exporters from which it would take many years to recover, as the Canadian and US experience shows. Let's learn from the US's mistakes. The US has a history of growing GM crops before they have been approved in key export markets, resulting in a series of contamination events that have cost hundreds of millions of dollars each.

The high cost of such events was first brought home by "StarLink" a massive supply chain contamination incident in 1999 involving a GM corn approved for animal feed but not approved for human foods as it was thought to be an allergen. That saw the largest food product recall in history and is estimated to have cost the US company Aventis and others US\$1 billion.ⁱⁱⁱ Aventis left the GM crop business.

According to Australian Government statistics China was the second largest destination for Australian food exports in 2012-13, with \$3.1 billion in sales.^{iv} In 2014 the US faced "the biggest GM crop controversy to shake US grain exports since StarLink corn" after traces of a GM corn not cleared by Beijing (Syngenta's "Viptera") were found in shipments to China. Exporters predict that the economic fallout from this contamination incident could dwarf StarLink.

Since November 2013, China has rejected over 1.45 million metric tons of US grain exports, forcing handlers to reroute shipments (at a discount) and cancel or delay contracts.^v China's response is particularly worrying for the US corn industry because its stance on GM "has the potential to transform agricultural markets."^{vii} "It's pretty dramatic if the U.S. can't supply the Chinese market", says a grain exporters' representative.^{viii} The clampdown has not only affected US corn exports but other commodities such as soy in which traces of unauthorized GM corn were found. It has also caused soy prices to drop for a period, as China seeks substitute grains.

ⁱ Smith, N. (2016). GMO regulations clarified, 5/4/16. <https://www.beehive.govt.nz/release/gmo-regulations-clarified-0>

ⁱⁱ European Commission (2006) GM FOODS - Commission requires certification of US rice exports to stop unauthorised GMO entering the EU: Press Release (IP/06/1120), 23 August 2006, <http://www.reading.ac.uk/foodlaw/news/eu-06080.htm>

ⁱⁱⁱ Macilwain C. (2005). US launches probe into sales of unapproved corn. *Nature*, **434**:423

^{iv} Australian Government Department of Agriculture (2014) *Australian food statistics 2012-13*, <http://www.agriculture.gov.au/ag-farm-food/food/publications/afs/food-stats-2012-13>

^v Meyer G. (2014). Trade Fears Sprout in GMO Divide. *Financial Times*, March 10.

^{vi} See also: Meyer G. 2014. Trade fears sprout in the GMO divide. *Financial Times*, March 10; USDA. 2014. China E Peoples Republic of. Grain and Feed Update. GAIN Report 14005

^{vii} Meyer G. 2014. Trade fears sprout in the GMO divide. *Financial Times*, March 10.

^{viii} Bunge J. 2014. U.S. Corn Exports to China Dry Up Over GMO Concerns. *Wall Street Journal*, April 11.

NASAA Comments on AusBiotech and CropLife claims about organic:

1. Quasi regulation on conventional farmers – At no time do Organic farmers seek to regulate conventional farmers. The certification process involves on farm management and auditable trail of inputs to establish that artificial chemicals and GM organisms are not involved in the food production, processing or packaging of organic certified foods. Conventional and GM farmers are free to produce food in a manner they wish.
2. GM-free claim – Certified Organic food is GM-free and any claim otherwise is misleading and false. The Organic sector maintains this position because the market for certified organic food world-wide demands it.
3. Co-existence in its current form with 100 meter break between conventional, organic and GM crops has failed world-wide with drift and migration of GM plants into conventionally run farms and organic farms occurring on a regular and well documented basis. Given this, the organic sector is simply trying to maintain its rights to choose not to grow or have GM plants or animal materials involved in its food production process. The GM industry is, however, seeking to limit any restriction on the use and spread of GM and is therefore seeking to impose its practices on others by removing the choice of conventional or Certified organic farmers who choose not to use these products
4. The claim that GM and conventional canola have been grown side by side successfully without any issues is false to the point that in order to maintain the GM free status of conventionally grown canola, and ensure proper and reliable segregation, receival silos refuse to accept GM product. This is because GM canola is regarded as a low quality bulk commodity and, as such, attracts a lower price or return for growers and traders.
5. Organic canola is a premium product and depending on the seasonal conditions can command in excess of a 100% premium on GM product. As occurred in Canada, these premiums will be lost if Certified Organic producers cannot guarantee the GM-free status of their product.

Organic Federation of Australia (OFA) Comments on AusBiotech & CropLife claims re organic:

Organic certification is a 3rd party certification that covers the production and handling of organic food and fibre. As a consequence of this certification process, the products whether they be food or fibre are thereby deemed to be certified organic. Organic products are an output of this process.

The real issue here is that the National Organic Standard requires that production and handling process on certified organic farms is GMO free and as a consequence the product is inherently GMO free. The third party certification process ratifies this integrity.

The Federal Government accredits all private organic certification bodies. The OFA understands that the National Standard does not allow any business to label organic products GM-free or Chemical-free unless you have verifiable proof to make that claim. Certification bodies take corrective action if this claim is made on labels but not substantiated.

Neighbours have a duty of care to ensure that their production technology stays within the boundary of their property or it is trespassing. They have a duty of care to ensure this does not occur. GM Technology and chemical contamination are non-allowable inputs to organic systems.

It is a part of all organic standards worldwide that GMO technology is not used in the production and handling of organic products.

As a government accredited organic certification body NCO has to comply and interpret the National organic and biodynamic standard as written. No GMO technology is to be used in the production and handling of organic product. It must be reiterated that a duty of care must be adhered to each landholder using that technology (GM). It should not be allowed to trespass out of the realm of their legal control (i.e. the border of their property).

Chief Justice of the WA High Court Carmel McClure found in the Marsh's favour in the Marsh vs Baxter case. It was contended that the GM Canola Industry had not adhered to best management practice PMP - (used swath rather than direct harvest)

There is a large percentage of consumers that would vote with their consumer dollars and buy organic produce, The world organic market is now worth \$US93 billion and the growth of this awareness is 11-14% per annum

Contamination from any source whether it be from seed or chemical means the technology cannot be contained. This GM technology is primarily introduced to benefit the patent holder who sells chemicals that match the seed. **Few of these chemicals have been independently tested for endocrine disruption that affects every woman and man on the planet through epigenetics.**

GM-free Canola currently has a premium in the marketplace of \$60-70/tonne. Recent trials in WA indicated that GM canola does not out-yield conventional canola. Further, narrowing the gene pool to a few varieties will put Australian farmers at further risk due to extremes in climate. Biodiversity is the key to adapting to climatic extremes and this is a foundation principle of organic farming.

Comments by Network of Concerned Farmers, Julie Newman:

The OGTR imposed a condition of license on Monsanto's Roundup Ready canola to ensure adequate risk management was taken to minimise the risk of encouraging weed resistance to glyphosate. One of those conditions was to get farmers to sign a document when they pick up the seed to say they do not have excessive weed problem nor a resistance problem. Yet, that is the main reason farmers grow it. If Monsanto followed their condition of license conditions and enforced their conditions of license risk management promise, it is unlikely that many farmers would grow it.

Zero tolerance for GM is not unrealistic as claimed, it is a fact of farming. Every farmer delivering to CBH must agree that there is zero GM delivered in any of their grain. This includes farmers that grow GM and use the same machinery. The liability for delivering GM and causing it to be rejected is price prohibitive as demurrage and recall would be millions of dollars.

NO CONTAMINATION IS ACCEPTED IN NON-GM

- "In 2001 the ACCC made it clear that a GM-free claim left no room for ambiguity under the Trade Practices Act." "Confirmation from the Australian Competition and Shopper Commission has been received stating clearly that **no contamination would be acceptable in product using GM free or non-GM labels.**" (pg 32)

- "FSANZ has successfully prosecuted a NZ company for misleading labelling. The Auckland company Bean Supreme was fined when **0.0088%** of GM soy content was found in vegetarian sausages labelled as either "GM-free" or "Non-GM".

In the Commission's view 'free' and 'non' meant 'non' in the eyes of the shopper. Bean Supreme's attempts to remedy its misleading labels by replacing the 'GMO-Free' labels with 'Non-GM' labels did not fix the misrepresentations. This case is important in clarifying for the industry what is expected in regards to the accuracy of GM claims." (pg 76)

- "Germany and Austria are two of a small number of European Union Member States that have legislation in place that strictly regulate positive claims **for non-GM products and no detectable GM content is allowed.**" (Pg 32)

- CBH delivery terms and conditions 4.1.10: "**None of the Grain in a delivery is a genetically modified organism** (unless declared in writing to, and approved in writing by, CBH before the Delivery enters the site)." (pg 31)

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- “Due to these contractual obligations and liabilities involved, it is essential for farmers to know the GM content of their seed prior to delivery to avoid costs and liabilities. Unfortunately, there are no quantitative tests available at the delivery sites.” (pg 31)

WHY 0.9% THRESHOLD?

“The rationale for establishing thresholds is because inadvertent presence is considered unavoidable.” (pg 33).

Ref: WA GMO Industry Reference Group - Information Paper on Genetically Modified Canola, 2009