

We are Consumers and we are here to inform you about GM foods...

What is happening to our food?

We know that the Australian hospital admission rate for anaphylaxis (a life threatening allergic reaction) in very young children has risen 493% over the last 11 years. The majority of these anaphylaxis cases were food related.

Simultaneous increases have been found in 5-14 year olds and this is difficult to explain by the “hygiene hypothesis”.

There appears to be an external event affecting children in both age-groups at the same time. Below the anaphylaxis tip is a huge iceberg of food allergy and food sensitivity.

This rise has coincided with the introduction of GM foods into the Australian diet. GM crops are engineered to produce new proteins which end up in our food. Most GM ingredients are not labelled in Australia .

Some of the new proteins produced by the GM crops have been predicted to be allergenic but they have not been adequately assessed¹.

GM foods may not be the cause of health problems but how can we be sure?

It has been impossible for doctors, epidemiologists or researchers to directly determine GM food impacts, either detrimental or beneficial, **because the food has not been labelled**. No long term, multi-generational, peer-reviewed, independent tests have been done on GM foods.

Disrupted fertility

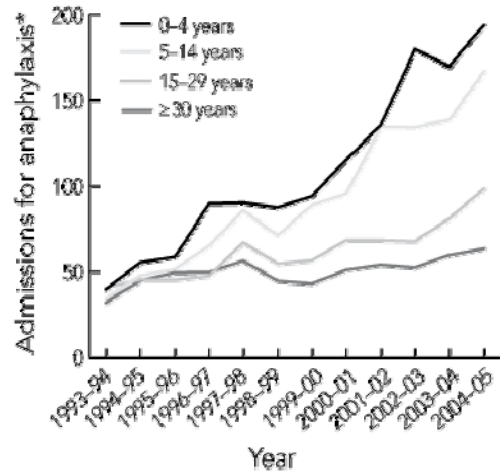
Many people believe GM crops use fewer chemicals. However a study on GM crops quoted USDA (United States Department of Agriculture) figures showing a 15 fold increase in the use of pesticides following the introduction of GM crops².

Since many GM crops are designed to be resistant to the herbicide Roundup (glyphosate) the use of this chemical has vastly increased. Grains from these crops contain higher concentrations of glyphosate and degradation products³.

Quoting an editorial comment⁴... “In a study in Ontario, Canada, exposure of male farmers to glyphosate-based herbicides was associated with an increase in miscarriage and premature birth in farm families⁵. “

“Researchers at the Universite de Caen in France found Roundup killed human placental cells at concentrations below those used in agricultural practice⁶.”

Australian hospital admission rates for anaphylaxis in the financial years 1993-94 to 2004-05



* Rate per million population.

Paediatric food allergy trends in a community-based specialist allergy practice, 1995-2006, Raymond J Mullins, MJA Vol. 186 No. 12 pp 618-621

Negative effects on animals:

Illnesses

Rats fed GM potatoes “developed potentially pre-cancerous cell growth in the digestive tract, inhibited development of their brains, livers and testicles, partial atrophy of the liver, enlarged pancreases and intestines, and immune system damage”⁷

Rats fed the type of Roundup Ready canola sown in Australia last month developed livers 15% heavier than rats fed non-GM canola. This may indicate liver disease or inflammation.⁸

Sterility

“More than 20 farmers in North America report that pigs fed GM corn varieties had low conception rates, false pregnancies, or gave birth to bags of water. Both male and female pigs became sterile. Some farmers also report sterility among cows and bulls.”⁹

Dr Erina Ermakova reported that the offspring of mother rats fed GM soy were infertile when they mated with each other. The males were totally infertile. The females only bred when mated with rats fed non-GM soy.¹⁰

Death

Twelve cows in Germany died mysteriously when fed GM corn.¹¹ Twice the number of chickens died when fed GM corn.¹²

“After the cotton harvest in parts of India , sheep herds grazed continually on Bt (GM) cotton plants. Reports from four villages revealed that about 25% of the sheep died within a week”¹³

How have GM foods been tested?:

Without getting too technical...

Food Standards ANZ (FSANZ) approves food for Australian consumption on the basis of chemical tests conducted within the laboratories of the company applying to release the GM food. Companies stand to gain financially if their GM crop and food is approved

It is like asking a tobacco company to do its own tests on the safety of smoking.

Can we trust our food regulator FSANZ?

Monsanto’s GT73 Roundup Ready Canola was planted in Victoria and NSW in April. The GM canola oil would need to be labeled if new (novel) protein was found in the oil.

It is known that people allergic to peanuts can be allergic to peanut oil as the protein they are allergic to is found in the oil, even at low concentrations.

In the Executive Summary of its Final Risk Analysis Report, ANZFA (as FSANZ was previously known) states “...all protein and DNA are removed” from the oil. But in the Final Safety Assessment Report Attachment the level of protein actually found in the refined oil was stated.

- P3 “[The oil] undergoes extensive processing such that **all protein and DNA are removed.**”
- P7 “... oil is **not considered** to contain any protein (or DNA). ”
- P18 “As a result of the processing steps, canola oil contains **negligible** protein.”
- P25 “... **all** protein is **virtually** removed upon processing canola seed [...]”
- P25 “**Total protein present in refined oil** of 1992 field trial of GT73 - 0.29 ppm [this figure is typical of the protein levels in refined oils].”

If FSANZ cannot be certain about the composition of the GM oil can their assessment be considered either scientific or an adequate?

FSANZ’s “Expert Panel”...

FSANZ assembled an “Expert Panel” to decide whether it would take into account animal feeding studies.

"An expert panel, convened by FSANZ in June 2007, noted that while whole-food feeding studies may be informative in some limited circumstances, any potential adverse health effects can be identified by a scientifically-informed, comparative assessment of the GM food against its conventional counterpart with a history of safe use¹⁴."

FSANZ commissions no research into the safety of the GM foods they assess.

Our own Expert Panel of Consumers made the following statement in response...

“While information provided by a commercial company of interest may be informative in some limited circumstances, it can not, in any manner, constitute the basis of a scientific assessment, and the process by which it is used is not, and never will be ‘Science’ .”

Most GM products contain novel protein and DNA

From recent studies we know that most of the unlabelled ‘refined’ GM ingredients on the shelves will contain novel proteins and DNA .

Testing methods are getting better. In a 2007 study (Zhang et al) GM DNA was found in soy lecithin, soya protein powder, chocolate beverage, infant rice cereal and soybean oil.

Proteins are found in small amounts in all food, even refined oil. DNA has been found in refined canola oil (Hellebrand 1998).

Our current regulations say items containing GM DNA or protein should be labeled.

To avoid the economic inefficiency of testing every ingredient of every product, all GM ingredients should be simply labelled. Since 92% Australians want full labeling of GM food this should be a priority and happen immediately.

REFERENCES

- 1 Screening of transgenic proteins expressed in transgenic food crops for the presence of short amino acid sequences identical to potential, IgE – binding linear epitopes of allergens; Kleter GA, Peijnenburg AACM; BMC Structural Biology 2002, 2:8
- 2 <http://www.foe.org.au/sustainable-food/media/news-items/front-page-news-feed-1/new-report-gm-crops-increase-pesticide-use>
- 3 Isoflavone, glyphosate, and aminomethylphosphonic acid levels in seeds of glyphosate-treated, glyphosate-resistant soybean." , Duke SO et al, J Agric Food Chem. 2003 Jan 1;51(1):340-4
- 4 “Roundup Revelation – weed Killer Adjuvants May Boost Toxicity”, Bonn D, Environmental Health Perspectives, Vol 113, No 6, June 2005, pA403-404
- 5 “Male pesticide exposure and pregnancy outcome”, Savitz DA, Arbuckle T, Kaczor D, Curtis, K; American Journal of Epidemiology Vol. 146, No. 12 p 1025-1036.
- 6 “Differential Effects of Glyphosate and Roundup on Human Placental Cells”; Richard S et al; Environmental Health Perspectives, Vol 113, No 6 June 2005, pp716-720
- 7 Arpad Pustai’s research reported in Jeffrey Smith’s Genetic Roulette Chapter 1.1
- 8 Jeffrey Smith’ Genetic Roulette Chapter 1.16
- 9 Genetic Roulette 1.8
- 10 http://www.i-sis.org.uk/GM_Soya_Fed_Rats.php
- 11 Genetic Roulette Chapter 1.9
- 12 Genetic Roulette Chapter 1.17
- 13 Genetic Roulette Chapter 1.6
- 14 Questions on Notice 96,97,98 Date Asked 12/2/2008, Date Due Tabling: 14/3/2008 Minister for Health and Aging