



Media Release: Embargo until 11 a.m., Friday 14th November

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GM Canola Approved on False Grounds

Monsanto GM canola data immediately available to all news outlets

The Community organisation MADGE (Mothers are Demystifying Genetic Engineering) is challenging the validity of the Food Standards Australia New Zealand safety assessment of genetically modified (GM) canola, saying the regulator did not have access to necessary information about the crop to verify its safety.

Reading into the raw data supplied by GM crop developer Monsanto, MADGE's Madeleine Love ([0447 762 284](tel:0447762284)) went further to suggest that Food Standards ([02 6271 2222](tel:0262712222)) may not have understood the random GM techniques when it approved the safety of the crop.

“Monsanto was not able to identify and characterize one of its intended GM proteins in the GM canola planted in Victoria and New South Wales this year. Instead they supplied Food Standards with information about a protein that was not expected to be present in the crop.”

“The protein they were looking for is expected to be comprised of both bacterial and flower structures that have never been consumed before in the human diet. It is essential to know exactly what the protein is so it can be tested for allergenicity, since most food allergic reactions are caused by proteins in the food.”

MADGE believes it is one of only two financially disinterested community organisations reading into the science of GM safety assessment, and says alternative informed opinion is vital in the GM debate.

“Our community is being led on unverifiable claims made by the GM industry and its business and political supporters, and we are saying to the community to seek informed opinion outside these groups. The GM issue is too important to leave solely to the business and political interests.”

“For example, GM promoters have repeatedly stated that we have been eating GM food for years with no ill effects. However there have been no studies to investigate if GM food has been safe to eat or not, and this was confirmed by Food Standards Chief Scientist Dr Paul Brent ([02 6271 2222](tel:0262712222)) at a Senate Estimates hearing on October 22nd this year [1].

Indeed no medical monitoring system has been established.

The AMA (Australian Medical Association) ([03 9280 8790](tel:0392808790)) has policy resolutions calling for full labelling of GM foods and for an alert system whereby medical practitioners can notify authorities if they believe a reaction to consumption of a genetically modified or other novel food may have taken place.ii [2]

Some serious changes in community health have taken place since the introduction of GM foods in 1996 which are impossible to ignore.

An Australian Medical Journal article reported that serious food allergic reactions needing hospitalization have risen five-fold in the youngest age groups, and clinic consultations for allergy have risen 12-fold since the mid

1990'siii [3]. The authors considered many possible causes but said there was little published evidence for these. Surprisingly they did not consider the introduction of GM foods.

Ms Love has been investigating the many links between the allergy, immunology and biotechnology fields.

The Ilhan Food Allergy Foundation (03 9804 7121) hosted an Allergy Symposium at the Royal Children's hospital earlier this week. Ms Love alerted the audience to the fact that two of the credentialed speakers had co-authored a scientific paper calling for the removal of four allergy tests from the already inadequate GM testing schedule.

The article had been financially supported by the GM crop companies Monsanto and Bayer, and published in the scientific journal *Nature Biotechnology* [4]. The co-authors cited concerns related to the **cost to the GM Developers** and **potential disruption of trade** as reasons to cut the tests.

MADGE's Madeleine Love said "Parents don't expect the risks to the health and safety of their children to be weighed up against costs to companies like multi-billion dollar Monsanto, nor would they expect their children's and friend's health to be subservient to Australia's trade interests."

"With this knowledge the audience of doctors, epidemiologists, allergy nurses and parents appeared to draw their own conclusions at the Symposium."

In contrast to these speakers, a different group of allergy specialists called for far stricter allergy testing of GM foods, recommending pre-market skin prick tests on willing human guinea pigs as a mandatory first stepv [5]. To MADGE's knowledge none of the crops approved by Food Standards have been tested even with simple skin prick tests prior to approval.

The capacity for GM proteins to cross prime for common allergens has been well established by the famous 'CSIRO pea' animal study, where a very slightly altered GM protein was able to cross prime mice to become allergic to an egg allergenvi [6]. This study has recently been reviewed and the finding has been verified.

To MADGE's knowledge no published study has looked at the capacity of the proteins in GM crops to cross-prime for peanut allergens, but the world's predominant GM crop Roundup Ready soy is a likely candidate. Soy is a legume like peanuts and has three near-identical allergens to peanuts. Soy and milk allergens are also cross-reactive.vii [7]

On the ground some strong and informed communities have taken action on their own. This week health professionals and food service providers and producers gathered at the South Gippsland hospital in southern Victoria with MADGE to learn how to identify Genetically Modified food. The South Gippsland shire has recently declared itself to be GM free.

Medical practitioner Dr Barbara Hoare of Foster (**not confirmed for phone contact**) said she is concerned that many people in her care could have illnesses or allergies related to consuming GM foods. "There is no reporting or monitoring system in place and no information that I can find that addresses the safety of GM foods in humans", she said.

At least one commentator has suggested that Genetic Engineering technology has been deliberately shrouded with mystique to isolate the potentially dissenting community from the debateviii [8]. But demystification is the MADGE specialty.

MADGE co-founder Fran Murrell will be speaking on Food Regulation at the Growers and Eaters forum at the Brunswick Town Hall, Sydney Road at 11:00am.

Senator SIEWERT—Okay. **Just to clarify, there is no post-approval review of any of the products that you have already approved?**

Dr Brent— **There is no post-market monitoring per se.** There were attempts in the UK to do some research on this issue. The UK Food Safety Authority or agency actually commissioned some research to see how difficult it would be to do post-market monitoring on GM foods. I think the result of that and the consensus was that it was virtually impossible to do that sort of work. I think the UK spent almost £1 million on that research and it was dropped.

Senator SIEWERT—Thank you.

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- i [1] <http://www.aph.gov.au/hansard/senate/commttee/SI1355.pdf> pdf P83
- ii [2] Policy Resolutions 7730-4-07 and 7730-5-07
- iii [3] Paediatric food allergy trends in a community-based specialist allergy practice, 1995-2006, Mullins RJ, Medical Journal of Australia; Vol 186, No 12, 18 June 2007, pp 618-621
http://www.mja.com.au/public/issues/186_12_180607/mull1320_fm.html
- iv [4] Allergenicity assessment of genetically modified crops – what makes sense? Richard E Goodman, Stefan Vieths, Hugh A Sampson, David Hill, Motohiro Ebisawa, Steve L Taylor & Ronald van Ree; Nature Biotechnology volume 26 Number 1 January 2008
- v [5] Suggestions for the Assessment of the Allergenic Potential of Genetically Modified Organisms, Int Arch Allergy Immunol 2005;137:167-180.
http://www.ncbi.nlm.nih.gov/pubmed/15947472?ordinalpos=3&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
- vi [6] Transgenic Expression of Bean r-Amylase Inhibitor in Peas Results in Altered Structure and Immunogenicity; J. Agric. Food Chem. 2005, 53, 9023-9030 9023; PRESCOTT VE et al
- vii [7] Allergenicity of Soybean: New developments in identification of allergenic proteins, cross-reactivities and hypo-allergenisation technologies; Lamia L'Hocine and Joyce I. Boye; Critical Reviews in Food Science and Nutrition, 47:127-143 (2007)
- viii [8] Edging Towards BioUtopia; Richard Hindmarsh; ISBN 978 0 9802965 8 7 (pbk).