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17 August 1999

INQUIRY INTO PRIMARY PRODUCER ACCESS TO GENE TECHNOLOGY

The National Association for Sustainable Agriculture of Australia LTD. (NASAA)

Is a non-profit Organic Certification Organisation that certifies approximately 5 million ha of land in Australia and South East Asia. Within Australia NASAA certifies about one quarter of the Organic industry.

1. What are the impacts on Organic farmers of the further introduction of GM crops into Australia? Let me highlight a couple of current issues to illustrate our concern.
 - a. Cross pollination of GM and Non-GM crops; ie Canola, Corn and Soybean. An example of this is the case of a shipment of Organic Corn Chips imported into Holland by Prima Terra from the USA. A random "gene-scan" found the product to be contaminated with GM corn. A trace back found the source of GM pollen came from a neighbouring property. The shipment was destroyed, costing the importer \$170,000US. (Acres Australia July 1999). Research done by the John Innes Centre in Norwich (UK) has found that pollen can be carried up to 15km with Bees and 160km with wind (Acres Australia July 1999). Even with more modest figure say 6km; some simple arithmetic produces a potential contaminant area of millions of ha even from a few dozen crops.
 - b. The loss of the use of effective biological control agents such as Bt. (*Bacillus thuringiensis*). Research work being carried out in the US has found target insect species are becoming resistant to Bt with the increased planting of Bt modified crops. (Wayne Lawler/Ecopix ACF. Habitat Say No To Gene Tech's Bitter Harvest p7). This trend will eventually render the use of Bt sprays by Organic farmers useless. Organic farmers use of Bt sprays more than any other purchased product to manage insect pests. (E. Walz, "Final results of the Third Biennial National Organic Farmers' Survey", Organic Farming Research Foundation, Santa Cruz, Calif. 1999). Remember this form of Bt use has been successfully used by Organic farmers for over 20 years. The reason being that Bt in the Gm plant is in the environment 24hrs per day for the life of the crop (greater exposure to the target insect species) whereas when Bt is used as a spray the exposure to the environment and target insect is less than 24hrs. Generally spray application are made at intervals of 7 to 10 days. (far less exposure). The most recent publication of the journal Nature elaborates further on these risks.
 - c. Build up of Herbicide resistant weed species. The continual use of one herbicide Group/type in Conventional farming is already leading to increased resistance. An example of this is the use of Glyphosate (Roundup) in both broad acre cropping and orchards where

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Rye grass has become resistance. The use of one herbicide over a GM crop made to tolerate that herbicide will increase the rate of resistance to this herbicide group/type by weed species.

In the event of what we believe would be an ill-conceived uptake of GMO crops by the Australia rural sector, the measures required to maintain a separation in the production, transport and storage would be complex and costly and be a step which could not easily be corrected in the event of failure. We suggest the following would be minimum measures to attempt to secure the safety of the ecological food chain.

2. Minimum Measures required to limit/prevent GM pollution of Organic and GM free crops.
 - a. Put in place measures that would ensure the inherent integrity of GM free and Organic crops. Measures such as preventing the planting of GM crops in areas where both Organic and GM free crops are grown. As in the case were the use of Hormone based herbicides around areas planted to vineyards is controlled.
 - b. Put in place a system of licensing the use of GM crops. This would aid planning for both the Organic and Conventional farmers; those who grow either GM free or GM crops. Government agencies including AQIS already know all Organic growers who are certified because all Organic Certifying organisations are required, as apart of their accreditation with AQIS, to provide a list of their clientele annually.
 - c. The regular monitoring of GM free crops and the certification of these crops would need to be carried out by a third party. The Organic Certification organisations like NASAA are prepared to carry out this work in association with Genetic ID. (Genetic ID already operates in this field of certification). A strict set of standards/protocols would need to be developed by all parties. This would be the minimum required, both in the form of production monitoring and final product testing.

Measures for monitoring should be arrived at in consultation between consumers/industry/and other interested parties. eg Gene Ethics, Gene Tech Industry, farmer groups and consumers. This whole process would need to be one which is open, transparent and accountable.

- a. Open forums would be required to be held throughout Australia taking submissions from all parties that will be effected by the growing of GM crops.
- b. Unbiased information would need to be released to the general public.

3. Labelling.

It is absolutely imperative that all products containing GMO's be labelled as such. This means food not only for Humans but also animal feeds and farm inputs need to be labelled.

The likelihood of consumers having an adverse reaction to GM product cannot be avoided unless complete labelling of products occurs.

For the Organic farmer all input products need labelling. These include the likes of Fertilisers, Stock Supplements and Veterinary products.

For the Organic Processors this means products like yeast cultures and emulsifiers require labelling.

4. Liability.

Who is liable when an Organic or GM free farmer's crops are polluted by GM pollen?
Does the farmer whose market suffers from such pollution seeks compensation from:

- a. The owner of the Plant Variety Rights?
- b. The seed supplier?
- c. The Farmer of the GM crop or
- d. The government and government agencies which allowed the introduction of these crops into Australia or into the State.

The consumer of GM food needs to know where responsibility lies.

Litigation of this nature is currently underway in the UK. Australia is unlikely to be immune.

It must be remembered that when an organic farmer's crop is polluted in such a manner he incurs a financial loss due to the loss of his Organic Status and premium for the crop. In the case of the GM free farmer, he loses the premium he would obtain selling his crop into a niche market. The market for GM free products is growing rapidly throughout Europe, the UK and Japan.

5. Marketing of GM food crops.

As noted by the Gene Tech Industry, Australia is far behind the world leaders in this field (USA and Canada). Why do we need to compete in these markets when Australia is well placed to take advantage of the growing markets for GM free and Organic produce? It is after all building on the Clean Green image that has been developed and projected by various Governments and the industry itself throughout Australia. Our geographic isolation is our greatest attribute and not using it is folly.

Actions that would prejudice developing markets for our primary producers are ill conceived. The markets that exist for GM crops are currently being adequately (if not over) serviced by Canada and the USA. Chasing after these markets and locking horns with these countries in an insecure and lopsided World Trade environment, which we must endure, will surely prejudice Australian farmers. Australia would be better serviced if it seeks to continue to develop both the GM free and Organic export markets.

6. Accessibility of seed stock.

With the advent of sterile plant developments the security of seed supply not only Australian farmers but underdeveloped Third World Countries is a very serious question that promoters of the Gene Tech industry are not answering. Seed saving is a part of most agricultural cultures. On Australian broad acre farms it can be a question of continual survival after drought.

7. Food safety.

No one in the Gene Tech industry can give assurance that GMO's when mixed together or feed to animals won't have adverse effects on Humans. There are numerous people today with allergies without the wide introduction of novel GM crops being added into the food chain.

8. The safety of the farmer also has to be brought into the equation.

The continued use of Glyphosate on GM crops increases the risk of farmers to occupationally related disease. A recent population-based study conducted in Sweden between 1987-1990 and including follow-up interviews clearly links exposure to Roundup Ready herbicide (glyphosate) to non-Hodgkins lymphoma and strongly suggests glyphosate deserves

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further epidemiological studies. (Hardell, H & Eriksson, M 1999. A Case-Control Study of Non-Hodgkin Lymphoma and the Exposure to Pesticides. Cancer 5, No6).

This is of great concern when the results from Dr. Charles Benbrook study are viewed. He states that farmers yields of Roundup Ready Soybeans are lower and the amount of Roundup used on the crops was 2 to 5 times greater when compared to other weed management systems. (Evidence of the Magnitude and Consequence of the Roundup Ready Soybean Yield Drag from University-Based Varietal Trails in 1998. Ag Bitech Infornet Tech. Paper Number 1 July 13 1999).

NASAA believes that the Gene Technology will not add to the Bio-diversity of Australian farms but will act to the contrary.

Gene technology is believed by many in the scientific and lay community to be an irreversible and retrograde step that relates to broad range of factors including environment impact, animal and human health issues, trade restrictions and social injustice.

In addition the above I would like to table the following document for the perusal of the committee:

- a. NASAA's Standards for Organic Agricultural Production.
- b. National Standard for Organic and Bio-Dynamic Produce.

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