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## Submission to the Western Australian Government

In response to - Genetic Modification-Free Zones: A discussion paper for public consultation

by

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### This paper is one of a collection of three related papers

The Life Sciences Network has made a submission to the WA Government in response to its discussion paper about the possibility of establishing GM-Free Zones in the state.

The LSN has argued against the establishment of the zones on the basis the zones would seriously restrict freedom of choice for farmers. It was also pointed out the Government would face significant liability issues in the event of accidental breaches of the bio-security of GM-free zones.

The LSN argues for farmers to be able to establish voluntary crop-type growing areas rather than Government mandated restriction zones. LSN submission can be downloaded from their website @ [www.lifesciencesnetwork.com](http://www.lifesciencesnetwork.com)

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## Preface

The Life Sciences Network is pleased to have the opportunity to respond to the Western Australian Government's consultation paper on Genetic Modification-Free Zones.

The Life Sciences Network (Inc) is an umbrella organisation which brings together national industry organisations, universities, research organisations, producer organisations and other entities which have made an investment in biotechnology and genetic modification.

The Network's members base their businesses and activities in Australia and New Zealand but operate in global markets. The Network has offices in Canberra and Wellington.

The Network has been an active participant in many forums related to the use of biotechnology in Australia and New Zealand including the New Zealand Royal Commission on Genetic Modification.

The Life Sciences Network advocates responsible use of genetic modification, with appropriate caution, for the development of products and processes to add value to the economy, human and animal health and the environment. The Network sees genetic modification as being one of a multitude of technology and operational developments, which will combine to increase sustainability of the economy, rural

communities, agriculture and the environment.

Therefore the Network advocates choice in farming practices and co-existence of different agricultural systems.

It is clear from international experience all three agricultural production methodologies; organic, conventional and high tech use of GM can co-exist, complimenting each other for a sustainable and efficient production outcome. Producers should be able to choose the production system (or combination of systems) most appropriate to their individual operation.

The introduction of zones in Western Australia, which exclude GM crops, would deny the possibility of co-existence. One method of farming would be excluded to make way for another, thus imposing on the right of some farmers to choose their own future. It would preclude farmers being able to choose measures of production involving GM organisms that may lead to improved economic wealth within their communities, as well as the adoption of more cost effective sustainable farming systems.

There is a wealth of evidence available to support the view that GM organisms are as safe as other new organisms developed by breeding techniques that have been in use for decades. The existing regulatory controls to minimise risk of release of new GM organisms in Australia that might potentially have adverse outcomes are based on best global practice.

A further question arises about the consequent indemnities and financial liabilities which will fall on the State Government should it designate GM-Free zones which it cannot guarantee will remain GM-Free.

The costs of establishing and maintaining GM-Free Zones are likely to be high. The question then is whether the costs should be borne by those who seek to benefit from the definition of a GM-Free zone, or whether the costs of enforcement will be imposed on the wider community; including farmers whose rights to choose have been denied.

There are also serious questions about the practicality of enforcement; consequently about the benefits to the wider community of such a policy.

The Network believes rather than introduce GM-Free Zones, the State Government should encourage the agricultural community, responding to market signals, to develop appropriate strategies for co-existence between farmers who choose differing production methodologies.

Dr William  
Chairman, Life Sciences Network

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## Introduction

The Life Sciences Network acknowledges the Western Australian Government has declared it

- will take a cautious approach to the introduction of GM crop varieties into farming systems, but
- considers the utilisation of GM crops may be a critical element in the future competitiveness of the agricultural sector.

The Network notes the Government supports the recognition of designated areas as described in Section 21 of the Commonwealth Gene Technology Act 2000, and has introduced Complementary State legislation to enable GM-Free and/or GM zones to be established.

In relation to any such designated GM-Free and GM areas, only areas designated for preserving product identity for marketing purposes can be recognised. Under the Act, the Gene Technology Regulator is already empowered to address issues of human health and safety as well as environmental risks in relation to any request for a licence to deal with GMOs.

As such, the Western Australian Government's Discussion Paper is only about recognising designated GM-Free or GM areas relating to 'crops', not to other organisms which may or may not be genetically modified.

The Life Sciences Network notes the Western Australian Government's commitment to obtain the views of a wide range of stakeholders on core issues including:

- the potential costs and benefits of GM-free zones;
- the form GM-free and/or GM zones might take and how they might be determined, implemented and managed; and
- other industry or government initiatives that might assist in cost-effective production of non-genetically modified products.

The Life Sciences Network has also identified three key areas which arise from the Government's Discussion paper which require further investigation. These are:

- The term GM-Free Zone may be misleading in the context set out above and therefore should be changed to GM-Free Crop Zone
- In relation to GM-Free Crop Zones, the issues of co-existence, buffer zones and cross pollination must be discussed
- Government liability in the event of an inadvertent breach of the integrity of a GM-Free Crop Zone

## General Context

## GM-Free

The Western Australia Government's Discussion Paper (Glossary of terms) defines GM-Free as 'meeting a specified standard for claiming that genetic modification has not been utilised.'

In New Zealand the Commerce Commission has determined that the label GM-Free means zero presence of GM material. The Network prefers this definition because it imposes a reasonable and simple standard of proof on the entity making the claim.

We believe that any presence of genetically modified material would render a GM-Free claim a breach of the doctrine of "honesty in labelling".

Therefore, unless the Western Australian Government can categorically assert a designated GM-Free area is 100% free of agricultural products or crops derived from the process of genetic modification, such zones will need to be classified as 'Mostly GM-Free Crop Zones'.

Put colloquially, it's consistent with the impossibility of being a little bit pregnant.

The Australia New Zealand Food Authority (ANZFA) has considered the question from the reverse perspective. Labelling of a food product is required where there is a minimum level of GM content. Standard 1.5.2 (formerly A18) sets out the thresholds for minimum presence of GM content which require labelling.

Neither the New Zealand nor the Australian Government have set out what conditions are required to label a product as being GM-Free, though the New Zealand Ministry of Consumer Affairs is considering the issue at present.

Under current Australian food law, which permits adventitious presence of genetically modified material in food stuffs, GMFZs will not guarantee that genetically modified material will never be present within the zone and stringent and costly border controls will be needed.

## GM-Free Products

The Life Sciences Network would like to establish what it believes is meant by the phrase GM-Free products.

The Network believes that, in the context of this paper, the phrase GM-Free products means: "crop and crop-based food products which are free of any content which is derived from a process involving genetic modification or a genetically modified organism and which do not include any part of a genetically modified organism whether or not that genetically modified organism is viable or live."

That is, 100% free of GM content.

## GM-Free Crop Zone

As the Government's Discussion Paper relates only to 'crops', not to other organisms which may or may not be genetically modified, the term GM-Free or GM Zone may be misleading and should therefore be replaced with GM-Free or GM 'Crop' Zone.

In this context the word 'crop' must also be defined. The Concise Oxford Dictionary defines the word crop as 'produce of cultivated plants.' This definition of crops must then include GM poppy plants and field peas (currently being trialled in WA), GM carnations (five varieties are currently available commercially in Australia), and in the future GM trees, grass, potatoes and so on.

Under such a definition, GMFZs in Western Australia currently have the potential to impact on:

- all citizens and all businesses growing, harvesting, manufacturing, distributing and using agricultural commodities, crops and food (agrifood businesses) derived from or using genetic modification
- all home gardeners currently growing GM carnations.
- In future, GMFZs in Western Australia may have the potential to impact on, among others:
  - citizens who wish to grow GM field peas resistant to the pea weevil and those who may wish to plant GM grass or trees which are resistant to pests such as grass grub
  - citizens with diabetes who may wish to grow GM potatoes for personal use as substitute for the injectable insulin product.

## Cross Pollination and Buffer Zones

A commonly quoted reason for the establishment of GMFZs is to reduce the potential for cross-pollination between GM and non-GM crops.

Anti-GM campaigners have suggested huge buffer zones are needed with distances of up to 50 km proposed to prevent cross-pollination.

The Victorian Government has reviewed research on cross-pollination in crops and concluded cross-pollination was not likely to be a problem for most crops.

Dr Phillip Salisbury, a plant breeder and researcher at the University of Melbourne testified before the Royal Commission on Genetic Modification in New Zealand that the vast majority of canola pollen travels less than 10 metres.

Studies in Canada, the UK and Australia have all found a 5 metre gap between GM canola and conventional canola results in less than 0.5% cross pollination and a 30 metre gap results in less than 0.03% cross pollination.

Recent studies with wheat have shown a gap of only 4 metres stops 99% of pollination. The tiny level of cross-contamination remaining at these separation distances is likely to be insignificant compared with the potential extent of physical intermingling elsewhere in the food chain.

These distances are clearly practical to manage. There is no physical reason why both genetically engineered crops and organic farms cannot exist side by side.

## Government Liability

If the Western Australian Government introduces legislation enabling the establishment of GM-Free Crop Zone there could be legal consequences if GM is found in such an area.

The Life Sciences Network believes it will be impractical to guarantee GM crop material will not enter a GM-Free Crop Zone. Neighbouring farmers, for example, may enter the zone with seeds on their boots, clothing or vehicles.

The Life Sciences Network believes it will be impractical to guarantee GM material will not enter a GM-Free Crop Zone because people on GM medication may introduce live GMOs into the zone via normal human waste.

The introduction of GM-Free Crops Zones may also create other bio-security issues which would require further investigation.

There appears to be no constraint on farmers introducing and farming genetically modified animals in a GM-Free Zone under the provisions of the Federal legislation.

Once GM material is found in a GM-Free Crop Zone liability and compensation issues could arise. Not only is there potential loss of market access or premiums for non-GM and organic producers. There is also the question of GM farmers within the GMFZ who will lose their income or potential income when the zone is declared GM-Free. Will farmers in either of these situations receive compensation and if so from whom?

There could also be legal consequences if livestock are refused GM veterinary medications, for instance in an outbreak of foot and mouth disease. If animal welfare issues arise or stock is lost, compensation issues arise. GMFZs could also interfere with national stock health initiatives if vaccination with live vaccines is developed.

The reverse situation could also occur if GM farmer's crops are contaminated or damaged by crops, weeds, pests from a neighbouring GMFZ.

The State Government, as the certifier of the zones, may find itself the focus of a variety of liability actions. Further, the State Government would also need significant resources and tools to manage such GM-Free Crop Zones.

## Specific Responses To Core Issues Raised In The Paper

### The potential benefits and costs of GM-Free Crop Zones

As stated in the consultation paper, the primary focus of the Western Australian Government, in deciding whether or not to introduce GM-Free Crop Zones, is the potential role of GM-Free Crop Zones in facilitating the production of crops that do not use genetic modification and in supporting marketing programs for non-GM crops and crop products.

A key question in assessing the potential benefits and costs of GM-Free Crop Zones is the extent to which a market advantage will be gained from a claim that a crop product is produced in a GM-Free Zone, over and above any claim the product is not genetically modified.

### The Victorian Government's Findings

The Victorian Government, in its consultation and report on GMFZs, found no market advantage would be gained from a claim that a crop product is produced in a GM-Free Zone, over and above any claim that the product is not genetically modified.

The Government also found there were significant practical difficulties and potential costs in implementing and maintaining GMFZs, which would prevent realisation of the suggested production benefits.

The Life Sciences Network agrees with the Victorian Government's conclusions.

GMFZs:

- would appear to have the potential to offer only limited assistance in the production of differentiated GM, non-GM and organic products;
- would be costly; and
- would present many practical difficulties in their implementation and maintenance while restricting the ability of producers to change production systems within or outside the zones.

The Life Sciences Network supports the Victorian Government's finding, "it is clear that effective segregation and identity preservation/traceability systems will be needed where there are market opportunities for differentiated agrifood products and future Government effort should be focussed on achieving this."

The Life Sciences Network encourages the Western Australian Government to adopt a future approach which will focus on working with industry to determine segregation, identity preservation and traceability systems (Agricultural Supply Chain Management) that will:

- allow effective co-existence and farmer choice
- allow production to acceptable nominated purity standards;
- achieve appropriate distribution of segregation costs;
- allow the cost-effective supply of differentiated GM and non-GM products as needed to support the Western Australian food manufacturing sector and take advantage of localized food manufacturing sectors, other domestic and international market opportunities; and
- allow choice for Western Australian consumers, with minimal cost penalties.

Avcare, a member of the Life Sciences Network, has given its commitment to apply any product-specific risk management practice which may be necessary to ensure full compliance with appropriate regulations established by the regulating authorities.

## Organic and GM can co-exist without introduction of GMFZs

Opponents of GM use many anecdotal claims to support their position which suggest there are no markets for GM crops and that the world apparently prefers organically produced food.

The evidence of market trends is not as black and white as portrayed. Global plantings of GM crops have increased annually to exceed 50,000,000 hectares in 2001. While there is evidence of market resistance to some GM products in some countries, notably Japan, UK and Europe, other markets for specific products continue to grow.

Demand for organically produced food is also patchy.

The opponent's assertions about markets are then translated into a supposed community demand for GM-Free Crop Zones.

Separating the reality of consumer purchasing from activist rhetoric is difficult. As with all agricultural commodities, market behaviour will determine whether farmers will grow GM crops or raise GM animals and normal market forces will ensure growers respond to market preferences.

It is simplistic to argue, as opponents of GM do, that their own preference for non-GM food and products is shared by the rest of the population.

Opponents of GM are saying that organic production is the only sustainable method of farming. There is no sound evidence to support the claim that organic is more sustainable than conventional or GM, particularly in open systems where produce is removed from the farm. It is clear some organic and other farmers will manage their land badly and on a less sustainable basis than those who follow good farming practice independent of how they farm in terms of inputs.

The Life Sciences Network believes all farming systems (production methods) must be allowed to coexist and compliment each other. The organic movement has a legitimate place in agricultural production. Its practice raises general awareness of the value of sustainable agriculture in protecting the environment. Many of its techniques can be used in mainstream agriculture to produce food at affordable prices. The same can be said of GM and conventional systems.

Some opponents of GM believe, however, organic production is the only acceptable farming method and this production method must be protected under legislation prohibiting other methods.

The pragmatic approach is to agree on principles for sustainable farming and allow farmers to deliver on those principles using the method that best suits their resources and capabilities.

The Life Sciences Network supports the right of farmers to choose to adopt a production method, be it GM, conventional, organic or a combination which produces sustainable agriculture.

The economics of GMFZs encompass factors far wider than just market access. The Life Sciences Network believes there is no role for state or local government in restricting what farmers can grow by imposing GMFZs.

A further reason why GM-Free Crop Zones are unnecessary in the state is because this issue is already being addressed and managed by regulators, farmers and technology developers in Western Australia. For example, the WA GM Canola Technical Working Group, which

supports the national regulatory responsibilities of the Office of the Gene Technology Regulator, is ensuring questions of seed hygiene, consumer and occupational health and environmental safety are already being addressed.

## Costs of GM-Free Crop Zones

The Life Sciences Network believes the difficulties inherent in establishing and maintaining GMFZs would significantly outweigh any production or marketing advantage.

For example:

- the value of GMFZs would depend on the maintenance of costly, fixed total supply-chain segregation and identity preservation/traceability systems to deliver the non-GM products to market;
- clearer market signals would be needed to justify the pursuit of fixed arrangements for segregation and identity preservation/traceability because there is little evidence of premiums being paid for the non-GM commodities currently on the market;
- there would be no competitive advantage in establishing GMFZs as competitors could readily adopt the same or other arrangements to deliver GM-free products, possibly more cost-competitively; and
- whilst GMFZs would advantage some producers, others would be disadvantaged on a case-by-case basis.

These implementation costs would be a significant cost to the whole rural community. There is a sound equity argument, which says the costs of the GM-Free assurance should be borne by the beneficiary farmers within the zone. It would be inequitable to transfer part of the costs to farmers who would derive no financial benefit from the zone through for example a taxpayer-funded assistance to the zone.

## Economic Costs of implementing GMFZS using the Tri-State Fruit Fly Strategy as a model

The Tri-State Fruit Fly Strategy can be used as a model for assessing the possible costs of implementing a GMFZ. It illustrates the effort and cooperation needed to maintain a region which has defined agricultural characteristics (in the case of the tri-State - Queensland fruit fly freedom.)

The fruit fly exclusion zone extends across three states (the Riverland of South Australia, the Murray and Sunraysia districts of Victoria and the Riverina of New South Wales).

The Strategy was set up under a Memorandum of Understanding (MOU) between the three State Governments, the Commonwealth Government and industry groups. Each State Government is responsible for monitoring the areas concerned under state legislation, as well as providing ongoing funding for compliance and tactical responses. The Federal role is overseas market access and certification for the fruit produced from these areas.

The industry's role is to provide funding for community education and awareness. This is a key role, as the major risk to the strategy is the traveling public moving in and out of the exclusion zone. Consequently, major emphasis is placed on signs along boundaries to the zone, fruit fly disposal bins and random road blocks.

Using the Tri-State Fruit Fly Strategy as an example, the establishment of GMFZs under either statutory or voluntary arrangements would incur a range of direct costs to individual farmers and agrifood businesses and indirect costs that would impact on the community at large. These costs have been identified as follows:

### Direct Economic Costs

- Administrative costs to establish a GMFZ
- Employment of quarantine inspectors to enforce the zone
- The costs of signage to delineate the boundaries of the zone
- Testing costs associated with chemical analysis required to monitor compliance to GE-free standards
- Training and third party audit costs for farmers to achieve on-farm quality assurance (QA)
- Training and third party audit costs for agrifood businesses in the supply chain to achieve QA
- Infrastructure and ongoing maintenance costs associated with implementing and maintaining segregation and identity preservation systems
- Compensation for those farmers and agrifood businesses suffering commercial disadvantage because they did not wish to participate in GE-free markets and / or their property fell within a separation buffer zone
- Administrative and testing costs associated with prosecuting breaches to GEFZ standards

Based on discussions with Primary Industries and Resources South Australia representatives from the Tri-State Fruit Fly Program, an estimate of the costs associated with establishing and managing an exclusion zone has been compiled by Avcare and is provided in table 1 below (see Avcare: 'Genetic Engineering Free Zones - a Discussion Paper', November 2001).

## Table 1 Annual Cost to Establish and Manage a GMFZ

Cost Component	Costs	
	Initial or One Off	Ongoing (pa)
Project Manager (salary & on costs)	-	\$100,000
4 Teams to mount border security (24hrs x 7 days x 8 persons x 4 teams @ \$30k p.p.)	-	\$960,000
Staff Office Accommodation	-	\$100,000
Infrastructure (signage, vehicles, check points) costs	\$200,000	\$50,000
Sample Analysis	-	\$50,000
Eradication / Recovery	\$200,000	-
On-farm QA (per farm)	\$2,500	\$250
Segregation & Identity Preservation	\$100,000	-
Contingencies for legal costs, liability, compensation		\$500,000
Communication/education costs		\$500,000
Total	\$502,500	\$2,260,250

## Other Costs

Additional costs associated with establishing GM-Free Zones include:

- The opportunity cost of foregoing the use of GM technologies by all farmers and agrifood businesses in the GMFZ including:
- Savings in farm inputs (water, fertilizer, pesticide and machinery use)
- Yield improvements provided by production traits (insect and disease resistance, hybrid systems)
- Price premiums provided by improved or novel product traits (enhanced appearance, higher vitamin content, specialised oil characteristics)
- Cost to taxpayers associated with establishing and managing statutory GMFZs, for which they receive no benefit
- The additional costs to taxpayers associated with having the mix of Federal regulatory bodies and state agencies involved in implementing and monitoring GM-Free standards.

Implementation difficulties for the whole community in keeping the GMFZ free of all GM material that may come in contact with crops or livestock. Inconveniences may include searches of people, vehicles and aeroplanes every time they enter the GEFZ and testing or confiscation of animal and agricultural products entering the zone.

As the Western Australian Government consultation paper states in section 7.2, current information does not allow for confident predictions of longer-term market trends. In fact it is difficult to get good factual information (there is plenty of anecdotal information) on a market's short and longer-term requirements.

The Life Sciences Network urges the Western Australian Government, should it decide to take this proposal further, to provide resources for ongoing independent analysis of the international and domestic agrifood market. This analysis would confirm the substance of claims about markets and would also compliment private research to allow appropriate agrifood production strategies to be developed.

## Forms of GM-Free Zones

### Why establish a GM-Free Crop Zone?

There are purportedly three major reasons for establishing a GMFZ, these are:

- a philosophical opposition to the adoption of this breeding technique;
- a concern that there has been insufficient testing of the risk to the environment and public health due to releasing a GM crop; and
- the exploitation of a possible marketing niche for non-GM agricultural products.

Whilst the Network acknowledges such reasons for establishing a GMFZ, it does not agree with them.

The Life Sciences Network does not agree with the purported reasoning behind establishing a GMFZ because Australia has currently one of the most rigorous assessment procedures for GM crops and products in the world. GM crops are not approved until the regulatory bodies are satisfied they are as safe, or safer, than their conventional counterparts. In many cases the GM crops are designed to benefit the environment for example reducing dependence on pesticides.

## Co-existence

The Life Sciences Network believes all farming systems (production methods) should be encouraged to co-exist. Farmers should be free to grow any crop, which has been approved by the appropriate regulatory authority. Farmers should be permitted to continue to make choices based on their soil type, expertise, rainfall, and economic considerations and not on the ideological perceptions of other members of the community.

The Network supports the existence of areas where organics can be grown according to agreed industry standards but is against the state regulating where these areas must be. Farmer agreed co-existence is preferable using a number of production tools, for example scientifically researched separation distances.

Australia joins the US and Canada as one of the three biggest growers of GM crops in the world. Both the US and Canada have healthy organic sectors that co-exist successfully with GM farmers. There, organic farmers are able to maintain their certification in a co-existence environment and all three countries have commercially successful organic sectors.

Non-GM farmers may end up clustering together for economy-of-scale just as conventional or GM farmers may and the Life Sciences Network believes the market will determine the optimum arrangement. The State's role should be in providing credible information and an environment in which farmers are supported to negotiate effective production standards and good working relationships with one another.

OGTR has regulated the dimensions of isolation and buffer zones for field trials of GM crops, which will be a scientifically based guide for future decision-making on commercial crop planting.

A range of viable and profitable farming methods are currently available to farmers in Western Australia. It makes no more sense to protect organic farming under legislation by introducing GMFZs, than it does to legally protect conventional or GM farming systems while prohibiting other methods such as organic.

The Life Sciences Network believes the logical and reasonable approach is to agree on principles for sustainable farming and allow farmers to deliver on those principles using the method that best suits their resources and capabilities.

Statutory controls over agrifood production where they are desirable must be sufficiently flexible to allow rapid change to cater for market changes. Legislating for GMFZs will not achieve this requirement.

## Other Industry or Government Initiatives

The Life Sciences Network does not support the establishment of GMFZs. However it does recognise industry must offer alternatives at local and state levels.

The Report of the Victorian Government Consultation 'Genetic Engineering-Free Zones' highlights practical and workable alternatives to GMFZs.

The Life Sciences Network urges the Western Australian Government to adopt the practical and workable alternatives suggested by industry stakeholders who made submissions to the Victorian Government.

The industry stakeholders who provided responses to the Victorian Government Consultation include the Victorian Farmers Federation, Horticulture Australia Limited, the Plantation Timber Association Australia, the Victorian Chicken Meat Council, the Grain Industry Association of Victoria, the Flour Millers' Council of Victoria, the Stockfeed Manufacturers' Association of Victoria, the Australian Food and Grocery Council and Avcare. They all called for action in a number of areas which are outlined below.

The Life Sciences Network recommends the following alternative to GMFZs, which has been proposed by Avcare and other industry stakeholders. This alternative would involve supporting Agricultural Supply Chain Management Systems which encompass:

- Voluntary (non-statutory) arrangements based on agricultural policy for individual commodities and developed by the agrifood industry,



- Such arrangements could consist of agreements between GM and non-GM producers to grow commodities (including conventional GM and organic produced commodities) according to an agreed commodity management plan that could include quality assurance, traceability, and identity preservation depending on market characteristics,
- The voluntary agreements would be implemented via industry codes of practice and accreditation systems and (such as a crop management plan) for GM and non-GM producers,
- The industry-led management and accreditation systems should have appropriate Government endorsement, which may include regulatory oversight to underpin the industry-led arrangements.
- This approach would have adequate flexibility to respond to changing market forces, and would ensure equity between farmers and the products of different farming systems.
- Operation of GMFZs could be delivered at the farm level through “crop management plans” which are developed by a wide range of agricultural industry stakeholders. The process for developing and implementing these plans is currently under discussion by a State and Commonwealth Resource Management sub-committee, to meet the requirements of the Gene Technology Regulator prior to issuing a licence. The National Registration Authority also develops and manages such plans in relation to registering agvet chemicals, which have specific claims for use in association with pesticide resistant crops.
- Codes of practice and accreditation schemes should extend across all agrifood production systems where quality assurance, traceback and/or identity preservation is required, including organic production.

Following this approach voluntary GMFZs could be called Agricultural Supply Chain Management Systems. These could operate to provide a production system which respects the rights of individual farmers and other agrifood businesses without the need for statutorily delineated zones. Farmers would be responsible for ensuring their farming operations did not interfere with those of their neighbours. This is equally applicable to organic farming where there is potential for weeds, pests and diseases to spread into neighbouring properties by the same means that organic farmers claim GM material will encroach on theirs.

## Conclusion

The Life Sciences Network is opposed in principle to any form of legislated zoning controls on either a regional or state level over farming practices. The Network believes GM-Free Zones are not practical and restrict farmers' flexibility in responding to market forces.

The Network supports the responsible use of genetic modification, with appropriate caution, for the development of products and processes to add value to the economy, human and animal health and the environment.

Australia has one of the most stringent, credible and responsible regulatory systems for GMOs in the world. It would be responsible and practical for the Western Australian Government to continue its cautious approach and support existing federal regulatory controls for the introduction of genetically modified crops and organisms. The Western Australian Government should not introduce GM-Free Crop Zones.

The costs of establishing and maintaining a GMFZ are high and the benefits are not obvious. The State Government, as the certifier of the zones, may find itself the focus of liability actions should a GM-Free Zone suffer an inadvertent or unexplained presence of the product of genetic modification within its boundaries. The likelihood of this happening is probable as the Western Australian Government cannot categorically assert a designated GM-Free area is 100% free of agricultural products or crops derived from the process of genetic modification.

The Life Sciences Network believes farmers should be able choose the production technology most appropriate to their individual operation. It is no more logical to impose a GMFZ than it would be to impose a zone in which only GM crops were allowed.

The Life Sciences Network believes the logical and reasonable approach is to agree on principles for sustainable farming and allow farmers to deliver on those principles using the method that best suits their resources and capabilities.

Hence, the Network does not support a legislative solution to ensure the coexistence of GM and non-GM agricultural commodities. It believes voluntary Agricultural Supply Chain Management Systems should be considered by stakeholders to ensure agrifood industries and consumers have a choice between GM and non-GM products produced through sustainable agriculture at affordable prices. The evidence from around the world demonstrates this is a reality. Similarly in Western Australia the coexistence of GM and non-GM agricultural commodities such as canola is a reality.

The State Government should ensure this reality continues and decline to introduce GM-Free Crop Zones.

## Appendix

The Network represents the interests of national industry organisations, universities, research organisations, producer organisations and other entities which have made an investment in responsible biotechnology and genetic modification.

They include:

- Agcarm
- AgResearch
- Arable Food Industry Council
- Avcare (members of Avcare include Aventis CropScience, BASF, Dow AgroSciences, DuPont, Monsanto, Syngenta Crop Protection,

Nufarm, Wesfarmers Landmark, CRT Town and Country)

- Auckland Uniservices
- Berry Fruit Grower's Association
- Crop and Food Research
- Federated Farmers of New Zealand
- Feed Merchant's Association
- Fruit Growers Federation
- Fonterra
- Forest Research Institute
- Grocery Marketer's Association
- HortResearch
- Institute of Molecular Biosciences
- Malaghan Medical Research Institute
- Meat Industry Association
- Meat New Zealand
- New Zealand Veterinary Association
- New Zealand Wool Board
- Otago University
- Poultry Industry Association
- Vegfed
- The Network also has alliances with:
  - Association of Crown Research Institutes
  - Business New Zealand
  - Canterbury University
  - Lincoln University
  - NZ Organisation for Rare Disorders
  - NZ Vice Chancellor's Committee
  - NZ Lysosomal Storage Diseases Association
  - Researched Medicines Industry Association
  - The Royal Society of New Zealand
  - Victoria University of Wellington
- The Network comprises 4000 participants in Europe, North America, South America, Africa, Asia and Australasia and reaches an audience in excess of 25, 000 on a daily basis

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