



SUBMISSION TO THE HOUSE OF REPRESENTATIVES STANDING COMMITTEE ON PRIMARY INDUSTRIES AND REGIONAL SERVICES INQUIRY INTO PRIMARY PRODUCER ACCESS TO GENE TECHNOLOGY

FUTURE VALUE AND IMPORTANCE OF GENETICALLY MODIFIED VARIETIES

It is anticipated that over the next 20 years genetically modified varieties will become extremely important in Australian agriculture as they will add value for both the producer and consumer.

THE ABILITY OF PRODUCERS TO COMPETE USING TRADITIONAL VARIETIES

This will depend on the relative price of transformed and traditional varieties. There are four scenarios that are illustrated below.

		Benefits to the producers	
		Yes	No
Benefits to the consumer			
Yes	++ (type a)		- + (type b)
No	+ - (type c)		- - (type d)

Type a. Benefits to both consumer and producer

The genetically transformed varieties are of a higher quality than the untransformed varieties, and also cheaper to produce. In this circumstance the genetically modified varieties will rapidly dominate the market place. An example might be improved taste and resistance to berry rot in strawberries. If Australian growers cannot access the technology, then they are unlikely to be able to export competitively and may even lose the local market.

Type b. Benefits primarily to the consumer

The genetically modified variety costs the same to produce, but offers significant benefits to the consumer. If the consumer benefits are realised, even with a higher cost of production the varieties will rapidly dominate. If the price received by growers is the same it will depend on the producer preference driven by subtle differences in farmer perception of ease of production. An example might be a product that is perceived to be more healthy due to increased levels of anti-oxidants.



Type c. Benefits primarily to the producer

The genetically modified varieties are cheaper to produce than the untransformed varieties. Whether these will dominate the market place will depend on their price in the market place relative to untransformed varieties and the level of consumer resistance to the use of genetically modified varieties in the food chain. If most people are happy to consume genetically modified foods then a small price reduction is likely to ensure that the genetically modified varieties dominate production. If there is a high level of resistance to consuming genetically modified foods then their price will have to be considerably less than the untransformed varieties. Examples might be varieties with improved resistance to pests, diseases or herbicides.

Type d.

The case of increased costs of production and reduced value does not need to be considered.

The outcomes in scenarios type a and type d are clear cut, total dominance and no impact respectively. In scenarios type b and type c the outcomes are more subtle. With increased consumer confidence in consuming genetically modified foods it is likely that genetically modified varieties will come to dominate, but more slowly than would be the case in the type a scenario.

The most difficult situation for Australian producers is where a piece of gene technology is available that gives our competitors a marketing edge, either by reduced production costs or increased value of the crop, but which we are excluded from using either because of local regulatory barriers or insurmountable intellectual property (IP) issues.

THE COMMERCIALISATION AND MARKETING OF VARIETIES

1. In many species the technical barriers to the production of genetically modified crops have been solved.
2. There is an increasing suite of useful genes becoming available.
3. There are major barriers when trying to commercialise genetically modified crops. These are:
 - Access to intellectual property;
 - Ability to deal with regulatory issues; and
 - Consumer acceptance.



4. Currently the holders of core IP are not interested in “minor crops”. However, these are often of significance to Australian producers.
5. Currently the holders of core IP appear to be reducing competition for their core species by ensuring that access to IP is not made available to potentially competing species.
6. The regulatory environment is such that growers of many minor crops will be excluded from genetically modified varieties because the cost of dealing with regulatory issues does not make investment in these crops by large companies worthwhile.
7. A lack of consumer acceptance of genetically modified food is potentially a major barrier

THE COST TO PRODUCERS OF THE NEW VARIETIES

This is not a core issue. If the seed producers place too high a price on their genetically modified varieties, then the farmers will not grow them as they will not be profitable. There is no conceptual difference in pricing a genetically modified and a traditional variety.

OTHER IMPEDIMENTS

There may be contractual obligations between the farmer and the seed supplier or the marketer that are not currently present.

ASSISTANCE TO SMALL PRODUCERS TO DEVELOP NEW VARIETIES AND THE PROTECTION OF RIGHTS OF INDEPENDENT BREEDERS IN RELATION TO GMOS

The production of genetically modified varieties is not a trivial matter and people involved in the technology will be aware of the issues. Whether they can deal with them with small resources is another matter. The key costs are in the areas of access to IP and regulation.

APPROPRIATENESS OF CURRENT VARIETY PROTECTION

The technology in the IP involved in genetically modified varieties is often protected by patents, the seed of varieties can be protected by PBR. A major issue is the validity of using PBR legislation to collect end-point royalties.

CONSUMER EDUCATION

This is a major area and needs great skill. Ultimately, the success of genetically modified varieties will depend on consumer acceptance.