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Agricultural Competitiveness Issues Paper

Submission to:

Agricultural Competitiveness Taskforce
Department of the Prime Minister and Cabinet
PO Box 6500
CANBERRA ACT 2600

Submitting Organisation: **Producers Forum**

Producers Forum participants are agricultural producers from all over Australia.

We support access by farmers to new and innovative technologies and production methods. In particular we support farmers' access to and use of approved crops developed through biotechnology.

Australian farmers have stayed viable by being at the forefront of technology adoption on a very uneven global playing field. To remain viable & competitive we need to continue to be early adopters of new, safe and effective technologies and techniques.

We applaud the Australian Government's initiative to ensure that agriculture "realises its full potential through innovation, productivity, investment and trade".

This submission will focus on the importance to the agricultural sector of new technologies in particular biotechnology.

Kind regards



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16/4/14

Producers Forum Response to the Agricultural Competitiveness Issues Paper

Question 1: Ensuring food security in Australia and globally

Since the commencement of food production in Australia the agricultural industry has been innovative in seeking ways to improve sustainability. In more recent times improved plant breeding methods have extended from the use of molecular markers through to the huge farmer uptake of methodologies such as no till cultivation and precision technology. Human inquisitiveness & inventiveness will undoubtedly produce more new and innovative processes, products and techniques in the future that can be applied to agriculture.

The Department of Agriculture, Fisheries and Forestry reported in their “At a Glance 2010” publication that the rate of productivity growth in agriculture has slowed over the last decade.

It is becoming very apparent that it is time for another ‘revolution’ to support sustainable farming.

Public as well as private investment in Research and Development is vital to ensure that Australia's Agricultural Sector can continue to provide a safe and secure food supply domestically and contribute to global food security through our export capacity.

Funds expended on R&D are wasted if access by farmers to the resulting tested information, products and technology is impeded by inappropriate interference by community or political activism.

Challenges to food production

The food industry is facing various challenges including; increasing costs and finite supplies of nutrients; increased reliance on herbicides for weed control to support the widespread use of no-till techniques (a trade off for improving soil structure, conserving moisture, reducing soil erosion, reducing use of fossil fuels and exhaust gases entering the atmosphere, and replenishing soil carbon); and spread of soil salinity.

And there is a new challenge on the horizon – that of climate change with models predicting a hotter and drier environment with greater extremes for various food producing areas of Australia.

Garnaut (2008) estimates that climate change, if not addressed will reduce irrigated agricultural output in the Murray Darling Basin by 49% by 2050, affecting dairy, fruit, vegetables and grain.

The resultant reduced production will have huge impact on the sustainability of individual food producers as well as the nation’s agricultural exports.

Salinity also poses a threat to sustainable agriculture in Australia with the National Land and Water Resources Australian Dryland Salinity Assessment 2000 estimating that nearly 5.7 million hectares are at risk or affected by dryland salinity, and this figure could rise to 17 million hectares within 50 years. This dryland salinity reduces crop and pasture yields, many surface water supplies are already too saline for domestic use, and native habitat is being lost. (Website www.abc.net.au/learn/silentflood)

According to the Australian Government's Bureau of Rural Sciences in their Science for Decision Makers December 2009 publication the "Maintaining and improving crop and pasture production depends on the development of improved varieties through plant breeding that:

- Improves yields
- Resists pests and diseases
- Requires fewer inputs such as fertilizers
- Tolerates environmental stresses

The success of plant breeding in recent decades and its contribution to increased world food production can be attributed in large part to the adoption of new technologies including plant gene technology".

Modern breeding techniques using biotechnology is one method available to address these challenges to production.

The limitations placed on genetically modified crops through moratoria in various parts of Australia are stifling the opportunity to meet the challenges facing food production.

The huge cost of gaining regulatory approval for GM crops limits the ability to bring such crops to market to the largest & wealthiest multinational companies.

This is a huge mistake. Around the world, biotechnology is transforming agriculture for the better, helping farmers grow more food on less land and in sustainable ways.

Several recently published peer reviewed scientific articles have detailed long term studies of GM crops and found that they pose no greater risk to people or the environment and in some instances provide environmental benefits (Fagerström et al., 2012; OECD, 2012; Lu et al., 2012) .

Biotechnology also lowers production costs, which become a saving that can be passed on to consumers. It shows that environmental and economic sustainability can work hand in hand.

The United Nations reports that the growing world population will drive up demand for food by 70 per cent by the year 2050. (United Nations Population Information Network <http://www.un.org/popin/data.html>).

The majority of Australian's do not go hungry however we do have the responsibility to our own lower income people as well as to the growing global populations to participate in growing affordable food.

The vast land expanses of Australia are very attractive to those going hungry, and when world prices peak beyond affordability of the masses, food riots result as evidenced in 2008 and again in 2011 putting global stability at risk. Australia cannot consider itself isolated from these world issues.

Reducing input costs, such as nutrients and pest and weed management, will allow Australian farmers to remain profitable AND produce affordable food.

Question 2: Farmer decisions for improving farm gate returns

According to NFF Farm Facts 2012, there are 134,000 farm businesses in Australia and 99% of these are family owned.

Historically, farms have been handed down through the generations. Therefore decisions made by the family farming business are about the sustainability, productivity and profitability of the business not only for the current ownership generation but for future generations as well.

As mentioned above, Australian farmers have stayed viable by adopting appropriate, new technologies and techniques. Farmers have demonstrated this in recent years by the rate of increase of adoption of GM varieties of canola as state moratoria have been removed and GM canola now represents 10% of the national canola crop.

In Western Australia where the GM moratorium was lifted prior to the 2010 season, 317 farmers grew GM canola in that first season. This climbed to 325 in 2011, 350 in 2012 with a substantial increase to 406 farmers growing GM canola in 2013. According to the Department of Agriculture and Food this is almost 17% of the Western Australian canola crop.

In the states where GM canola can now be grown, the major benefit of the technology has been in adding another weed control option to integrated weed management strategies. In this way adding GM canola to the varieties planted has reduced the use of harsher chemicals by substituting glyphosate and extended the useful life of the currently available suite of weed control chemicals by adding another chemical to the rotation. More effective control of weeds ultimately helps improve farm gate returns.

Australia was one of the first countries in the world to plant GM crops in 1996, when GM cotton was planted in New South Wales and Queensland. The Australian cotton industry now grows over 90% cent GM varieties resulting in reduced use of insecticide by around 85% and healthier waterways, ecosystems and communities. This considerable improvement in farm gate returns and environmental outcomes can be replicated in other crops.

Australia has the opportunity to capitalise on this by encouraging further crop breeding with biotechnology to produce more food on less land to tackle production challenges as well as cope with increased demand on some of the best productive land by urban spread, lifestyle change seekers, and the mineral sector. Crops with increased water use efficiencies will support more sustainable use of water resources by irrigated and dryland crops.

In 2012, PG Economics, a research firm in the United Kingdom, released a new report that describes why GM crops make so much sense. Between 1996, when GM crops were first commercialised, and 2010, biotechnology boosted global yields by almost 160 million metric tons of corn and nearly 100 million metric tons of soybeans. (www.pgeconomics.co.uk)

If the 15 million global farmers who used crop biotechnology in 2010 had not been able to access such crops they would have needed to cultivate approximately 14 million extra hectares just to make up the difference according to PG Economics. The amount of new farmland needed would be equal to about 30 percent of all the arable agricultural land in Australia.

Question 4: Increasing the competitiveness of the agricultural sector and its value chain

Input costs have increased significantly over recent times. Fertilisers are a limited resource that is declining at an ever increasing rate as more developing nations tap into nutrient replenishment to increase their production and farmers have been faced with huge fertiliser price spikes over the last decade.

As previously mentioned the huge increase in use of herbicides has aided the extensive uptake of no till and zero till farming which has supported greatly improved natural resource management. However this input also comes at considerable cost to food production.

GM crops, despite current increased seed costs, can support reduced chemical usage to manage weeds, pests and disease, increased nutrient use efficiency, increased yields in challenging environments, all of which result in lower production costs, which become a saving that can be passed on to consumers. It shows that environmental and economic sustainability can work hand in hand.

These crops can also assist farmers as they adapt to climate change and variability as we face drier winters, higher evaporation rates, warmer temperatures, and resulting changes in disease, weed and pest regimes. It will be essential to keep agricultural land in production if we are to continue to grow the value chain, and retain Australian competitiveness and play our role in food security.

Increased R & D has an essential role to play in retention of this competitiveness and will need support from industry, government and the corporate sector.

Question 7. Reducing ineffective regulations

The Australian Office of Gene Technology Regulator, based in the Federal Government's Health Department, is recognised as having one of the most robust regulation processes in the world.

Our regulatory system should have some mechanism in place for reducing the time and cost of the assessment procedure where similar products have been registered, tested and have a history of use in other countries.

The cost of meeting the regulatory requirements of the products of biotechnology should be concomitant with the level of risk. At present this cost is such that only the largest organizations can afford to undertake research and development in gene technology.

The cost of regulation and compliance should not be such that small and medium-sized R&D biotechnology companies are precluded from participating in gene technology R&D.

Insurmountable costs of compliance can effectively deny Australian producers access to gene technology, lead to lack of incentive to invest in R & D in biotechnology and a brain drain of some of our best and brightest researchers to other countries.