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Gene Technology Secretariat
Department of Health
MDP 1060
GPO Box 9848
CANBERRA ACT 2601

Submission to the Review of the Gene Technology Scheme

GrainGrowers welcomes the opportunity to provide a submission to the review of the Gene Technology Scheme. GrainGrowers supports the need for this Scheme to ensure that the health and safety aspects of all technologies are appropriately considered at a national level.

By way of background, Grain Growers Limited (GrainGrowers) is an independent and technically resourced, grain farmer representative organisation with 17,500 members across Australia. GrainGrowers' goal is a more efficient, sustainable and profitable grain production sector that benefits all Australia grain farmers and the wider grains industry.

The ability to access gene technology is essential for the continued development and growth of the grains industry in Australia. Grain farmers should always have the freedom of choice for the production systems and markets they use – be that genetically modified organisms (GMO), conventional, organic or any combination of these. GrainGrowers believes that access to gene technology is necessary for research, development and production purposes and gene technology is one key element which will allow Australian agricultural industries to remain internationally competitive and improve farm profitability.

The requirement for Australian farmers to be at the forefront of technology uptake must be considered in a global context. Australian grain growers rely on international markets with 65 per cent of production exported, making grain Australia's largest agricultural export. While being an important export industry for Australia, the Australian grain industry is a small player in the international market, accounting for around three to four per cent of international production annually. Australia's competitiveness in the global marketplace relies on continual increases in productivity, reductions in costs and the capacity to deliver quality that is valued by the markets to which we export. The continuous adoption and refinement of innovations in crop science, cropping equipment and farm management have helped underpin recent productivity growth in Australian agriculture¹.

ToR1. Current developments and techniques, as well as extensions and advancements in gene technology to ensure the Scheme can accommodate continued technological development.

Continued technological development is essential for the grains industry, particularly given Australia exports much of its grain and therefore must be competitive in world markets. It is imperative that the industry has access to these developments on an equal footing with its international competitors.

¹ Thompson, T 2015, Australian grains: financial performance of grain producing farms, 2012–13 to 2014–15, ABARES research report to client prepared for the Grains Research and Development Corporation

Australian scientists are at the forefront of GM crop research and breeding. The Grains Research and Development Corporation² provides funding on a competitive basis to universities, public research organisations and private research companies to undertake pre-breeding GM research. This type of research utilises GM techniques to identify genes of interest and their function, allowing for more targeted and efficient breeding processes for both GM and non-GM crops. There has been a significant increase in the number of GM field trials undertaken in Australia across a range of crops including wheat, barley, safflower, cotton and canola. GM traits observed in these field trials include nutrient use efficiency, abiotic and biotic stress, grain quality and modified oils such as super high oleic and Omega 3.

In recent years, a range of new breeding techniques³ have been developed that can produce desired traits in a crop using only the genetic material that occurs naturally within the genome of that crop and related species. These new techniques differ significantly from traditional GM technology in that they do not always require the introduction of foreign genetic material (transgenes) to express a desired trait. In this way, the new techniques effectively speed up the breeding process to achieve a desired crop line in a shorter time than would otherwise be achievable through traditional breeding methods.

These new techniques have demonstrated advantages over traditional biotechnology techniques, including an ability to have desired traits more reliably integrated in the crop plants, and a faster, more efficient breeding process with lower production costs. The techniques therefore have great potential to deliver significant economic benefits to the Australian grains industry through productivity gains and an improved capacity to meet production and market requirements.

The Office of Gene Technology Regulator (OGTR) is yet to classify the new breeding techniques as GM or non-GM.

ToR2. Existing and potential mechanisms to facilitate an agile and effective Scheme, which will ensure continued protection of health and safety of people and the environment

The grain and seed industries through international groups such as International Seed Federation, International Grain Trade Coalition and CropLife International are encouraging governments to not differentiate crops developed through new breeding techniques if they are similar to or indistinguishable from products developed through conventional breeding techniques.

As proposed in GrainGrowers' submission (dated 14 November 2016) to the technical review of the gene technology regulations, GrainGrowers supports 'option 4' which excludes certain technologies from regulation on the basis of the outcome they produce. This option would exclude organisms from regulation as GMOs if the genetic changes they carry are similar to or indistinguishable from the products of conventional breeding (eg chemical and radiation mutagenesis methods and natural

² This is a statutory corporation that is funded by grain producer levies and matching government contributions.

³ These new techniques include targeted mutagenesis, cisgenesis, intragenesis and gene silencing.

mutations). This approach will promote innovation in plant variety development and provide enhanced choice for grain farmers.

The principle should be that varieties developed through the latest breeding methods should not be differentially regulated based on the techniques employed during their development if they are similar to, or indistinguishable from, varieties that could have been produced through earlier breeding methods.

ToR3. The appropriate legislative arrangements to meet the needs of the scheme, now and into the future, including the Gene Technology Agreement.

GrainGrowers believes that the Scheme and associated legislative arrangements must ensure that regulatory hurdles do not place unwarranted barriers to gene technology research, development and ultimately adoption into farm production systems.

GrainGrowers believes that a robust national framework is essential to ensure a level playing field across Australia which supports the use of technology within a risk based framework and taking into account important safety and health considerations.

GrainGrowers reiterates its position that clarity around whether organisms developed using a range of new technologies are regulated in a manner commensurate with the risks they pose is best addressed by option 4: exclude certain new technologies from regulation on the basis of the outcomes they produce.

ToR4. Funding arrangements to ensure sustainable funding levels and mechanisms are aligned with the level of depth of activity to support the Scheme.

GrainGrowers supports the provision of adequate funding to ensure an efficient and effective regulatory system. GrainGrowers expects that specific information on funding arrangements may be provided during industry consultation phase of this review, and undertakes to consider any specific information or proposals and provide a more detailed response as appropriate.

GrainGrowers appreciates the opportunity to contribute to this review and is willing to participate in future consultation with the review panel as required. Further information on specific matters canvassed in this submission can be provided on request and all enquiries in the first instance should be directed to Fiona McCredie, National Policy Manager, on 02 9286 2000 or by email (Fiona.mccredie@graingrowers.com.au).

Yours sincerely



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