

Gene Technology Secretariat
Department of Health
MDP 1060
GPO Box 9848
Canberra ACT 2601
Via email: gene.technology.review@health.gov.au

29 September 2017

Dear Gene Technology Secretariat,

**Legislative and Governance Forum on Gene Technology: 2017 Review of the National
Gene Technology Regulatory Scheme background paper**

Cotton Australia welcomes the opportunity to provide comment and, as the representative body, speak on behalf of cotton growers regarding the Legislative and Governance Forum on Gene Technology: *2017 Review of the National Gene Technology Regulatory Scheme background paper (July 2017)*.

The cotton industry is an integral part of the Australian economy, worth over \$1.25 billion in export earnings for the 2015-16 season, and employing on average 10,000 people. The industry's vision is *Australian cotton, carefully grown, naturally world's best*.

Executive summary

Gene technology will continue to play a major role in improving the productivity, quality, and sustainability of cotton produced in Australia. However, whether these advancements are made using traditional genetic modification approaches, or alternative gene technologies that do not technically result in genetically modified organisms, will depend on the regulatory environment, subsequent registration/licensing costs, and the outputs that these technical solutions can deliver.

In accordance with the sentiment outlined by Cotton Australia in previous responses to the Productivity Commission (August 2016) and Office of the Gene Technology Regulatory (December 2016) (Appendix 1), the organisation strongly supports a robust system for science-based and risk-aligned regulation that protects human and environmental health and provides a clear and predictable path to market to ensure continued investment in innovation. Importantly, the Scheme should also provide certainty for consumers, where community perceptions toward the safety of synthetic biology may have implications for the cotton industry's ability to adopt products resulting from new breeding techniques.

Cotton Australia broadly supports the response of the National Farmers' Federation to the terms of reference to this review. To build on the NFF position, Cotton Australia recommends the following;

Recommendation 1. The regulatory Scheme to be reviewed to improve flexibility, transparency, and predictability-to-market for new technologies.

Recommendation 2. The reviewed regulatory Scheme to continue to deliver science-based and risk-aligned regulation for gene technologies and products resulting from the application of gene technologies.

Recommendation 4. Government to provide continued leadership and assurance for gene technologies and resulting products, which can be supported by industry to address stewardship or market-facing issues.

Recommendation 5. Removal of restrictions on the use of biotechnology which are not commensurate with risk, including state-based moratoria, to enable implementation of a nationally consistent scheme for regulation of transgenic crops.

Introduction

The Australian cotton industry strongly supports the application of gene technology innovations to deliver productivity and sustainability gains to growers.

New gene technologies have potential to rapidly transform the productivity and sustainability of Australian cotton industry. Gene technologies can be used to deliver new varieties with superior yield and quality parameters, address landscape-wide issues such as pest management and pesticide resistance and, add value to cotton by-products such as cotton seed. New breeding techniques could also be applied to overcome significant technical challenges in plant breeding for polyploid plants.

Productivity and sustainability gains will continue to be instrumental in assisting the Australian cotton industry in maintaining market advantage by participating in international accreditation programs for delivering responsible and sustainable cotton to the world fibre market. For example, transgenic insecticidal (Bt) cotton which currently accounts for over 99% of the total cotton planted, has contributed to a 96% decrease in insecticide use over the last 20 years and this improvement has enabled the industry to participate in global accreditation programs for sustainable natural fibres.

To ensure continued investment in innovative solutions for Australian agriculture, Cotton Australia strongly supports a robust system for science-based and risk-aligned regulation that protects human health and the environment as part of a clear and predictable path to market. This support is consistent with our position put forward to the Productivity Commission in August 2016 and to the Office of the Gene Technology Regulator in December 2016 (Appendix 1).

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

Cotton Australia supports the current science-based and risk-aligned approach of the OGTR for regulation of gene technologies. However, the current regulatory system for gene technologies requires revision to ensure sufficient adaptability and flexibility to accommodate advances in breeding techniques. This is particularly pertinent where new techniques along the plant breeding continuum are able to deliver significant advances in plant productivity and quality with a risk profile that is commensurate with, or indistinguishable from, natural processes.

A review of the current regulatory system and related legislation is essential to ensure that Australia's scientists and cotton growers are best positioned to utilise these technological advances to maintain market competitiveness through improved productivity and sustainability outcomes.

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 current science-based and risk-aligned regulatory scheme for risk assessment, risk mitigation, and ongoing stewardship of products derived using gene technologies is strongly supported by Cotton Australia.

Government currently plays an important role as an independent regulatory body to provide leadership and assurance in respect to protecting human and environmental safety. These underpinning assurances provide a robust platform for industry to apply an informed decision-making framework regarding the ongoing stewardship for products derived using gene technologies and addressing emerging consumer/market-facing issues.

Under an effective Scheme, the complementary activities undertaken by government and industry should deliver improved sustainability outcomes for agricultural production systems in a manner that supports the needs of agricultural businesses.

The ability of the Scheme to deliver positive outcomes for Australian agriculture has been particularly evident in the case of transgenic insecticidal (Bt) cotton, whereby Australia's cotton industry has been one of the global success stories in the application and stewardship of transgenic biotechnology to deliver productivity and sustainability gains.

The underlying risk assessments taken by both the OGTR and APVMA, and subsequently required risk mitigation tactics, have delivered a robust platform for delivery of user, and market confidence in the use of Bt cotton varieties. In conjunction with the trait provider, the cotton industry has subsequently been able to implement a strong stewardship framework around these products which has;

- Enabled widespread adoption of integrated pest management practices, thus decreasing total pesticide use by 96% within the cotton system;
- Enforced widespread adoption of resistance management programs which have extended the commercial longevity of the technology, whereby Australia is one of the few cotton growing areas to not experience widespread field failures associated with resistance;
- Provided assurances for market access; and
- Enabled the industry to access premium markets, in line with brand and consumer expectations around sustainable production and product safety.

Such is the confidence in the safety and efficacy of Bt cotton varieties in Australia, that a 92% uptake for the third generation of Bt cotton varieties (Bollgard® 3) for the first commercial growing season in 2016-17 represents the fastest transition to new GM technology anywhere in the world.

It may be the case that the government and industry stringent product safety, efficacy, and stewardship requirements for a transgenic technology would restrict the ability of inferior products to enter the marketplace.

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

International investment for innovation in Australia agriculture is essential for assuring long-term competitiveness and viability. To facilitate a continuous pipeline of innovation, it is of the utmost importance that the underpinning regulatory system for gene technologies remains science-based, aligned with risk, transparent, predictable and independent from political influence.

The current gene technology regulatory system in Australia is highly stringent in comparison with overseas regulators such as the USA and Europe. This burden is exacerbated by inconsistent market interventions by State governments which undermine the integrity of the national regulatory framework and appear to contravene the intent of the Gene Technology Agreement - to establish a nationally consistent regulatory system for gene technology that is based on scientific assessment, and is commensurate with risk.

The approval process for products associated with gene technologies could be greatly improved by implementation of a nationally consistent scheme for regulation of transgenic crops, which is commensurate with risk and provides a transparent and predictable path-to-market. A streamlined regulatory system may increase confidence and thus investment in biotechnological solutions for Australian agriculture.

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

Cotton Australia supports the NFF position that the OGTR should be adequately funded by government, as an independent body, to provide confidence in the regulatory system. Funding mechanisms for the Scheme should attract continuous investment in agricultural biotechnology. Any changes to the regulatory system that would deter investment in the development and delivery of new techniques or products should be carefully evaluated for impact on product safety, path-to-market transparency and predictability, stakeholder expectations, and long-term agricultural productivity and sustainability.

Further information

Cotton Australia considers that a review of the scheme is essential to deliver outcome-based regulation of gene technologies. This will ensure a science-based and risk-aligned regulatory system which provides a transparent and predictable path-to-market to encourage investment in innovative solutions for Australian agriculture.

Cotton Australia welcomes any opportunity to provide further information on its position. For more information, contact Nicola Cottee, Policy Officer on (02) 9669 5222 or nicolac@cotton.org.au

Yours sincerely,



Nicola Cottee
Policy Officer, Research Direction, and Stewardship

Appendix 1. External links to previous Cotton Australia submission relevant to this position paper

Cotton Australia submission to the Productivity Commission Regulation of Agriculture (August 2016):
http://cottonaustralia.com.au/uploads/publications/CA_Regulation_of_Agriculture_DraftReport.pdf

Cotton Australia submission to the technical review of the gene technology regulations (December 2016):
http://cottonaustralia.com.au/uploads/publications/GeneTechnologyRegulationsReview_CottonAustralia.pdf