



### **Biosecurity Tasmania**

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### **RE: Comments Invited on Draft Biosecurity Regulations 2022**

The Tasmanian Farmers and Graziers Association (TFGA) is the leading representative body for Tasmanian primary producers. Agriculture is one of the key pillars of the economy and the TFGA is committed to ensuring that the sector remains profitable and sustainable. The TFGA welcomes the opportunity to provide feedback to the Draft Biosecurity Regulations 2022.

The TFGA supports a proactive, effective, and shared responsibility approach to biosecurity at all levels and understands the vitally important role that strong biosecurity measures play in protecting Tasmanian agriculture and the environment. The TFGA accepts the Draft Biosecurity Regulations 2022 in its current form with the exception of proposed Draft Regulation 17 *Dealing with SDN-1 Modified Organism*.

Draft Regulation 17 states that:

- 1) For purposes of section 11(1)(d) of the Act, the introduction, presence, spread or increase of an SDN-1 modified organism is prescribed to have a biosecurity impact.
- 2) For the purposes of section 12(h) of the Act, an SDN-1 modified organism is prescribed as biosecurity matter.
- 3) For the purposes of section 17(1) of the Act, a dealing with an SDN-1 modified organism is prescribed as a regulated dealing.

In alignment with the TFGA's current SDN-1 Policy, we accept the determination of the Office of the Gene Technology Regulator (OGTR), that SDN-1 technology and their products as being non-GMO.

The TFGA acknowledges that the regulation of SDN-1 products is consistent with Tasmania's Genetically Modified Organism (GMO) Moratorium which ensures that Tasmania can continue to be able to confidently trade as GMO-free in markets that are sensitive to SDN-1 modified organisms. However, we believe that Tasmanian farmers should have a right to choose the best products and technologies available to maximise their productivity and allow them to compete on an equal footing with other states of Australia. The TFGA is of the opinion that the commercial use of SDN-1 technologies would not alter the outcome of Tasmania's GMO-free status and that it is the responsibility of the Tasmanian Government to justify and prove the economic advantage of the inclusion of SDN-1 in the GMO Moratorium.

The TFGA would like to highlight the implications that proposed Draft Regulation 17 will have on several industries within Tasmania, notably the dairy sector and the seed and grain growing industries.

SDN-1 is a gene editing technique, and is considered “one of the most promising new plant breeding techniques” in recent years<sup>1</sup>. Site-Directed Nuclease (SDN) involves directing DNA-cutting enzymes (nucleases) to cut DNA at a predetermined location. After the cut is made, the cell’s own DNA repair mechanism recognises the break and repairs the damage in the same way that it would repair a naturally occurring DNA break. This means that the range of possible changes to the DNA sequence is the same as would occur naturally. For this reason, the OGTR concluded that the process presents the same risk as a naturally occurring genetic change.

As outlined in the submission provided by Dairy Australia, and its regional extension body DairyTas, Draft Regulation 17 – which intends to regulate the dealings of SDN-1 – will have significant implications for two key strategic priorities in the *Tasmanian Dairy Industry Strategic Plan 2022-2027*:

- 1) farm productivity, and
- 2) adaptable farm systems

The Dairy Australia and DairyTAS submission also draws attention to the potential impact on farm greenhouse gas emissions. *“Any efficiency in the feedbase and in the animal will contribute to a reduction in emissions intensity. It follows that the ability of the animal to digest and extract the energy from the ryegrass more efficiently, [and] will contribute to reducing methane emissions intensity”*. Being the highest value agricultural commodity in the state (\$506M)<sup>2</sup>, there is significant potential for the Tasmanian dairy industry to integrate SDN-1 and its products to increase their adaptability to climatic change in their farm systems.

TFGA’s policy on climate change states that the *“TFGA supports and encourages producers to become early adopters and adapters of management practices that mitigate the impact of climate change”*. The benefit that SDN-1 techniques hold for Tasmanian agriculture are numerable, including both plant and animal breeding innovations. In particular, given that over two-thirds of the state’s agricultural land is occupied by pasture<sup>3</sup> and with the research and development currently underway in the dairy industry outlining the potential methane reduction capacity of SDN-1 ryegrass, Draft Regulation 17 will restrict industry’s capacity to innovate and expand in a way that is economically and environmentally sustainable.

Emerging evidence also demonstrates the potential for SDN-1 technology to be used to remove or limit allergen genes in a variety of crops<sup>1</sup>, and the submission made by Dairy Australia details that two genes being deleted in the gene editing technique Exzact™ for the DairyBio program, are those which control pollen allergen formation. Reports suggest Tasmania’s average pollen levels have doubled in recent months, suggesting that gene editing techniques could be used to help alleviate the impact of allergens throughout the community.

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<sup>1</sup> van de Wiel et. al 2017 (p.1), *New traits in crops produced by genome editing techniques based on deletions*  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5360818/>

<sup>2</sup> Tasmanian Government, *Tasmanian agri-food scorecard 2019-20*  
<https://nre.tas.gov.au/Documents/Tasmanian%20Agri-Food%20ScoreCard%202019-20.pdf>

<sup>3</sup> Tasmanian Institute of Agriculture, *Livestock Production Centre: Grazing*  
<https://www.utas.edu.au/tia/livestock-production-centre/grazing>

The estimated farm gate value of vegetable and pasture seed production in Tasmania is over \$37 million<sup>4</sup>. The Tasmanian Government has collaborated with industry and the Tasmanian Institute of Agriculture (TIA) to develop the *Tasmanian Crop and Pasture Seed Industry Plan 2020-23*, to identify opportunities to support the continued growth of the seed production industry. One of the key priority areas for the Plan is *Profitable Production and Sustainable Farming Systems* and states that *“improving the profitability of seed crop production and developing strategies for sustainable farming systems will support the ongoing growth and development of the Tasmanian seed industry”*.

Gene technology plays a fundamental role in the development of high performing pasture varieties which are higher yielding and have improved nutritional values and digestibility, resulting in better productivity and profitability in grazing operations. Many of these advancements are achieved through the use of SDN-1 technology and without commercial access to these products, Tasmanian producers are being critically disadvantaged in comparison to their mainland counterparts.

As detailed in the GrainGrowers submission, *“prescribe[ing] SDN-1 modified organisms as a biosecurity matter...[is] inconsistent with national regulatory approaches related to SDN-1 technologies”*.

Not only does the inclusion of Draft Regulation 17 undermine evidence emerging in the research pipelines, it also treats SDN-1 technology as a risk factor on par with pest and disease threats. This is unsubstantiated by credible evidence and goes against the determinations made by the OGTR and COAG.

**The TFGA does not support proposed Draft Regulation 17 and strongly urges the Tasmanian Government to consider the impacts that the regulation of SDN-1 technologies will have on the productivity and profitability of key agricultural industries.**

The TFGA appreciates the opportunity to provide comment on the Draft Biosecurity Regulations 2022, if you have any questions regarding this submission, please feel free to contact the TFGA.

Yours sincerely,



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Acting Chief Executive Officer  
17 May 2022

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<sup>4</sup> Tasmanian Government, *Tasmanian Crop and Pasture Seed Industry Plan 2020-23*  
<https://nre.tas.gov.au/Documents/Crop%20and%20Pasture%20Seed%20Industry%20Plan%202020-23.pdf>