

## **Inquiry into the impact of climate change on Queensland agricultural production**

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**SUBMISSION:**

**INQUIRY INTO THE IMPACT OF  
CLIMATE CHANGE ON  
QUEENSLAND AGRICULTURAL  
PRODUCTION**

Queensland Fruit & Vegetable Growers  
Date: 24.08.2023



QUEENSLAND FRUIT  
& VEGETABLE GROWERS





# Queensland Fruit & Vegetable Growers

Queensland Fruit & Vegetable Growers (QFVG) is the state industry body representing Queensland's commercial fruit, vegetable, and nut growers. To us, horticulture is the most vital industry in the world. We exist to ensure strength in the horticultural industry for generations to come. We provide the voice for horticultural growers in Queensland and are a valued service delivery partner.

QFVG operates a dedicated project delivery arm, Growcom. It is our belief that outcomes can only be achieved with the grower at the centre of all we do. We continually strive to be the provider of choice and to be recognised for our high-quality delivery. Our humanistic approach is that all services must be practical, useful, and relevant to growers.

## **That the State Development and Regional Industries Committee inquire into and report to the Legislative Assembly on:**

- a) the impacts of climate change and climate variability on Queensland agricultural production and the existing and potential future risks of climate change on the sector.**

Given the horticulture industry is heavily reliant on both temperature and water, any climate variability will have a substantial impact across the sector. The major climate concerns for horticulture growers are the increase in both maximum and minimum temperatures, and the increasing variability in rainfall impacting on soil moisture and general water requirements, availability and on-farm erosion.

The cumulative effects of extreme weather is also a major concern for the horticulture industry. The intensive nature of the industry makes it highly vulnerable to extreme weather events with severe damage and losses. The frequency of extreme weather events in the last 15 years have put ongoing financial pressure on the industry, forcing growers to react, respond and recover quickly, rather than having the finances and time to implement adaptation strategies.

Growers are regularly reporting that impacts of climate variabilities have also increased their costs of production and bottom line. They state, 'horticulture production used to have one good year out of three, this is now reduced to one good year in seven to ten years. While these and other input costs are increasing there is no capacity to 'pass through' these increases which is severely impacting on-farm profitability and viability.

**b) opportunities for the Queensland Government to create and support resilience, adaptation and mitigation measures in preparing the agricultural sector for future climate change.**

The Agriculture Sector Adaptation Plan (Ag-SAP) from 2017 posed six key recommendations to provide effective climate adaptation for the agriculture sector in Queensland. Opportunities to create and support resilience, adaptation and mitigation measures in the Horticulture sector are provided below as they align with these recommendations.

*Ag SAP Recommendation 1:*

**Optimise access to climate hazard information and projections at scales that can inform industry and farm-level risk assessments.**

This has partly been delivered with a number of climate projection platforms and medium-term weather forecasts for the horticulture industry now available. However, ongoing refinement and roll out is required. This should also include collection of data to continuously provide feedback and optimisation.

*Suggested action:* Wider promotion of the developed tools, and assistance for growers to utilise these.

*Ag SAP Recommendation 2:*

**Continue to develop and refine tools and resources that support farm, regional, supply chain and industry-level management decision-making**

This requires ongoing support to keep the horticulture industry's best management practice tool – Hort360, updated to provide Australian growers with risk management and customised supportive data in which to make informed decisions regarding climate adaptation.

*Suggested action:* Support the ongoing refinement of Hort360.

*Ag SAP Recommendation 3:*

**Support the delivery of facilitation and engagement programs**

Support in facilitation and engagement programs are essential for broader uptake of climate adaptation strategies by bringing research findings, climate projections and information to growers. This is also critical to increasing growers capacity ie knowledge, understanding and confidence in building their climate adaptation strategies.

Horticulture production in Queensland include a wide variety of crops, growing regions, and climatic regions. More specific research and extension work is required to successfully develop adaptation strategies and support growers in implementing them. Industry facilitators are also filling a crucial role in bringing learnings and concerns from growers to government, policy makers, researchers and developers.

*Suggested action:* The Farm Business Resilience Planning program has proved successful in supporting growers in building drought resilience. This program could be expanded to include broader climate adaptation. The program has a broad focus on profitability and holistic

business risk management, alongside access to grants and loans for implementation, bringing and sustaining a climate adaptation focus into the program will encourage broader uptake, action and impact over time.

*Ag SAP Recommendation 4:*

**Improve access to necessary finance and agriculture insurance**

Lack of finance is a key roadblock for climate adaptation measures to be implemented on farm. The Farm Business Resilience Planning program is delivering some financial opportunities for growers to build drought resilience but is currently not available or eligible for broader climate adaptation. This needs to change.

Furthermore, lack of access to insurance, or affordable insurance, for cover of the risks that are beyond climate adaptation is a major concern across the industry. Additionally, for many businesses farm management deposits are not accessible due to high consistency of crop turnover requiring consistent expenditure. This will continue to drive the need for Extraordinary Disaster Assistance Recovery Grants, as it is the only financial support available at present for many growers after natural disasters.

*Suggested action:* Broaden the Farm Business Resilience Planning program and the associated grants and loans to include climate adaptation.

Support the development of insurance products, such as parametric insurance, that are suitable and affordable for the horticulture industry. Consider subsidies for insurance products that can lower the need for Extraordinary Disaster Assistance Recovery Grants.

*Ag SAP Recommendation 5:*

**Explore mechanisms to enable climate risk management and climate adaptation to be addressed across agricultural supply chains**

There is a growing interest and corporate drivers in the agricultural supply chain for climate adaptation for effective risk management. However, climate risk management and the costs associated with mitigation and adaptation, are passed through the supply chain and largely lands with growers.

*Suggested action:*

There is a significant opportunity to invest in initiatives or research that engage all key members of a supply chain to properly consider emerging climate risks and negotiate how the risks can be collaboratively addressed through the chain.

Research projects should be designed to analyse the costs and benefits of shared climate risk management and climate adaptation with respect to:

- supply chain stability,
- the distribution of profits and losses amongst chain partners, and
- wider considerations such as food security.

Progress under this theme could help generate further solutions to the matters of finance and insurance outlined above and support an improved capacity to pursue more transformational climate adaptations such as innovative protected cropping systems.

*Ag SAP Recommendation 6:*

**Enhance investment in programs and initiatives that support and catalyse innovation and resilience, with a particular focus on the “next generation” in the agriculture sector.**

It is essential to take the next generation of growers along on the journey toward effective climate adaptation. This can lead to broader support and new ways of thinking to the challenges faced by the industry.

*Suggested action:* Before additional investment into programs and initiatives it is *crucial* to understand this ‘next generation’ of agriculturalists ie the data – what do they need, how they behave and what drivers may provide a catalyst to drive innovation and resilience.

For example, the demographics of the agriculture sector (including horticulture) is shifting to larger scale, corporate enterprises. This needs to be understood and factored into any future investment.

***Additional opportunities*** to create and support resilience, adaptation and mitigation measures in the Horticulture sector include:

- *Maximise benefits:* Under a changing climate, the benefits of *protected cropping* are growing and are becoming more viable. Besides the advantages of climate moderation and protection from the extremes, protected cropping systems have benefits for the labour force (controlled climate systems) and optimal use of inputs such as water, fertiliser and chemicals.

*Suggested actions:* Modelling and data for climate adaptation specific benefits for protected cropping systems and case study development for easy interpretation.

- *Enhance Drivers for change:* Holistic and effective grower engagement with focus on climate adaptation alongside climate mitigation, whilst maintaining farm profitability and business risk management. This will minimise risks of maladaptation /increase in emissions but also increase uptake of adaptation and mitigation practices.

*Suggested action:* Broaden the scope of the Farm Business Resilience Program.

- *Consistent policy:* Currently there is disparity across the agriculture sector and what is deemed to be farm operational income. Eg Graziers grow beef and hence run cattle for slaughter and are able to access compensation (i.e., drought relief funding/disaster recovery grants) to restock cattle numbers to produce beef however, horticulturalists / orchardists are only able to secure compensation (i.e., drought relief funding/disaster recovery grants) for land preparation and not for seedlings or new tree stock to produce a crop.

*Suggested action:* Include horticulture crops in compensation programs for drought and disaster relief for replanting of seedlings and tree stock.