AFPA Submission:

Draft Greenhouse Gas Emissions Estimation and Reporting Guidelines

Department of Climate Change, Energy, the Environment and Water

December 2025

Australian Fresh Produce Alliance

Growing a healthier Australia

About the Australian Fresh Produce Alliance

The Australian Fresh Produce Alliance (AFPA) is made up of Australia's key fresh produce growers and suppliers. The members include:

- Costa Group
- Perfection Fresh
- Montague Farms
- Pinata Farms
- Fresh Select
- Mackay's Marketing
- Driscoll's
- Australian Produce Partners
- Premier Fresh Australia
- Rugby Farming
- Fresh Produce Group

These businesses represent:

- half the industry turnover of the Australian fresh produce (fruit and vegetables) sector - $12 billion total
- a quarter of the volume of fresh produce grown in Australia - 6.5 million tonne total
- more than a third of fresh produce exports - $1.7 billion export total
- more than 1,000 growers through commercial arrangements, and
- more than 20,000 direct employees through peak harvest, and up to 25,000 employees in the grower network.

The key issues the AFPA is focusing on include:

- packaging and the role it plays in product shelf life and reducing food waste landfill,
- labour and the need for both a permanent and temporary supply of workers,
- market access to key export markets for Australian produce,
- product integrity both within and outside of the supply chain,
- pollination and research into alternative sources, and
- water security, including clear direction as to the allocation and trading of water rights.

The AFPA's aim therefore is to become the first-choice fresh produce group that retailers and government go to for discussion and outcomes on issues involving the growing and supply of fresh produce.

Products grown by AFPA Members include:

Apples	Blueberries	Cucumber	Nectarines	Salad leaf
Apricots	Broccoli	Fioretto	Onions	Spinach
Asparagus	Broccolini	Green Beans	Oranges	Strawberries
Avocado	Brussel Sprouts	Herbs	Peaches	Sweet Corn
Baby Broccoli	Butternut Pumpkin	Lemons	Pears	Table grapes
Baby Corn	Cabbage	Lettuce	Pineapples	Tomatoes
Bananas	Cauliflower	Mandarins	Plums	Water Cress
Beetroot	Celery	Mango	Potatoes	Wombok
Blackberries	Cherries	Mushrooms	Raspberries	

Executive Summary

The Australian Fresh Produce Alliance (AFPA) welcomes the opportunity to provide feedback to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) on the development of its voluntary Greenhouse Gas (GHG) Emissions Estimation and Reporting Guidelines for the agriculture sector (the Guidelines). Clear, consistent and fit-for-purpose emissions reporting guidance is essential to support horticulture businesses in responding to rapidly emerging regulatory and market requirements, while ensuring fairness and consistency across the sector.

The AFPA is broadly supportive of this work and the material released to date, noting that specific methodological guidance for horticulture will be delivered in the second tranche. This forthcoming detail will be critical, as the horticulture sector is uniquely affected by the absence of nationally consistent methodologies, significant data gaps and operations that extend well beyond traditional farm-gate boundaries.

Importantly, new regulatory settings, specifically the mandatory climate-related financial disclosures, mean that many horticulture enterprises are already facing immediate reporting expectations. The Guidelines must therefore be designed not only to support voluntary emissions estimation, but also to provide a credible and practical foundation for businesses that will rely on this material to comply with compulsory reporting obligations.

This submission highlights four key themes for DEECCW's consideration:

1. Alignment with emerging regulatory requirements

   Government mandated climate-related financial disclosure obligations will capture a significant proportion of horticulture businesses, have overtaken the development of sector-specific guidance and been rolled out with little support to uplift the capacity of horticulture businesses to respond. The Guidelines must align to these regulatory requirements and be completed swiftly to avoid inconsistent emissions inventories, duplicative work and increased compliance costs.

2. Recognition of the operational realities of horticulture

   Horticulture businesses are in the majority responsible for post-harvest activities such as packing, storage, ripening and transport. Guidance that applies only to the farm gate will not enable accurate entity-level reporting and will conflict with broader regulatory expectations.

3. Addressing critical data gaps and capability constraints

   The sector lacks nationally recognised emissions-intensity data for most crops and has limited access to practical tools and training. Without investment in foundational work (e.g. the development of emission averages for produce) and further compliance support, many businesses will not be able to meet either voluntary or mandatory reporting expectations.

4. Building on the AFPA's Common Greenhouse Gas Accounting Framework

   Developed collaboratively by major horticulture enterprises, the AFPA Framework provides an industry-tested, internationally aligned foundation that can support consistency and reduce duplication. Integrating this work into government guidelines will accelerate adoption and improve alignment across the sector.

DCCEEW should also consider its in role working with other Commonwealth Government departments and regulatory agencies to raise awareness of the specific challenges faced by horticulture, helping ensure that expectations are realistic, practical, and achievable for the sector.

Taken together, these themes underscore the need for guidance that is timely, technically sound and genuinely reflective of horticulture's operational and regulatory environment. Establishing such guidance will be central to building industry capability, reducing compliance burdens, and supporting the fresh produce sector to continue delivering sustainable, reliable and high-quality food for Australian consumers and export markets.

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Introduction

The AFPA welcomes the opportunity to provide feedback to DCCEEW on the development of its voluntary GHG Emissions Estimation and Reporting Guidelines for the agriculture sector. Clear, practical and sector-relevant guidance is essential to ensure that horticulture businesses of all sizes can participate more confidently and consistently in emissions estimation and reporting. As regulatory expectations continue to expand, producers and supply-chain entities require a coherent framework that reflects the operational realities of horticulture and supports their ability to meet emerging obligations.

The fresh produce industry and its ongoing supply of nutritious and safe fruit and vegetables plays a crucial role in the health and well-being of Australia's population, is a major contributor to the economy, and underpins national food security. A profitable and sustainable fresh produce industry is in Australia's national interest.

However, despite its importance, the sector faces mounting regulation with little compliance support, increasing pressure and straining viability. In the area of GHG reporting – data gaps, inconsistent methodologies and the absence of horticulture-specific guidance create practical barriers for businesses seeking to understand, measure and report their emissions footprint and meet new mandatory requirements. Establishing a clear, credible and fit-for-purpose foundation for emissions accounting is therefore critical, not only to support compliance with emerging regulatory frameworks, but also to enable long-term sustainability, productivity gains, and continued investment across the fresh produce industry.

Regulatory Context and Industry Capability

Regulation in this area has accelerated ahead of both the development of sector-specific guidance and the capacity of horticulture businesses to respond. As a result, many producers are already facing concrete reporting expectations, particularly through mandatory climate-related financial disclosure requirements, without access to aligned, practical, or industry-relevant government guidance. The Guidelines therefore have a critical role to play as they must not only support voluntary reporting but also provide part of the foundation that businesses will rely on to meet compulsory government reporting obligations, now and into the future.

The consultation material states that "demand for emissions data is expected to increase", while this is true, as referenced above, it is important to note that demand already exists. New climate-related financial disclosure requirements introduced by the Commonwealth Government will capture a significant proportion of horticulture businesses. The lowest threshold for mandatory disclosures is meeting two of the following:

- Consolidated revenue of $50 million or more
- Consolidated gross assets of $25 million or more
- 100 or more employees

Horticulture businesses are typically high turnover, low margin operations, with substantial assets under management (e.g. land, machinery, irrigation infrastructure) and a large seasonal workforce, that can exceed 100 full-time equivalents. This means that a significant number of horticulture producers will be required to disclose climate-related information from 2026–27, if not already, and many medium (and large)-sized operations will not have the systems, expertise, or data management processes to comply with these new reporting obligations.

There is a considerable amount of work required to lift industry capability and support businesses to meet these regulatory requirements. As it currently stands, many of the requirements imposed by the new climate disclosure standards are either too difficult to meet due to fundamental data gaps and resource constraints, or are inappropriately burdensome given the nature of horticulture production. For example, it is necessary to:

- Disclose "*the amount and percentage of assets or business activities vulnerable to climate-related physical risks*" and "*the amount of capital expenditure, financing or investment deployed towards climate-related risks and opportunities*." For horticulture producers, the majority of their business assets (fields, crops, orchards, packing facilities, etc.) and operational activities

(planting, harvesting, irrigation, etc.) are inherently vulnerable to climatic conditions such as extreme heat, drought, or flooding.

- Undertake climate-related scenario analysis to assess climate risks and opportunities, noting that "*the greater the entity's exposure to climate-related risks or opportunities, the more likely it is the entity would determine that a more technically sophisticated form of climate-related scenario analysis is required*." Given the high exposure of horticulture production to climatic variability, a literal interpretation would require captured horticulture producers to undertake sophisticated scenario modelling, which is likely beyond their capacity and of limited practical use.

This is particularly relevant for DEECCW's Tranche 2 work, which will incorporate the horticulture industry. Currently, this guidance will not be available to horticulture businesses ahead of initial reporting requirements for entities captured in Phase 1 reporting under the financial climate disclosure requirements and will hamper the work of those in Phase 2, who are establishing systems and processes to meet these requirements currently. The absence of this guidance, in line with rollout of broader regulation is problematic and the relationship between this work and the Government's own regulatory requirements should be more closely considered.

Outside of businesses captured by this regulation, the horticulture industry will also be required to engage throughout our supply chain to understand Scope 3 emissions from suppliers (i.e. smaller producers who grow fruit and vegetables and supply to a larger grower/aggregator/wholesalers). This means that this guidance must be relevant for all horticulture suppliers to ensure that calculations across a broad supply base can be aggregated by those captured by regulation, creating a greater imperative for clear guidance particularly with respect to boundaries, data sources and calculation methods.

Therefore, in developing this guidance material, DCCEEW's work must both support the industry to prepare for reporting, while also highlight and address the immediate capability and data challenges in the sector.

Horticulture Characteristics and Emissions Complexity

Horticulture is structurally and operationally distinct from many agricultural industries. Australia's diverse climate and geography enable more than 100 varieties of fruit and vegetable to be grown productively in regions around the country. Production occurs across a wide range climates and by varying business scales, from small family-run farms to large, vertically integrated national and international enterprises. Many horticultural businesses (medium to large) operate sites in multiple locations (around Australia) to take advantage of seasonal variations in climate.

Perhaps more unique, horticulture operations typically extend well beyond "on-farm" production to include aggregation, ripening, processing, storage, packaging, transportation and marketing. Many of these services and additional business functions are operated the by farming enterprise and therefore would be considered as part of their direct emissions. Therefore, any accounting methodologies designed to start and finish at the farm-gate cannot accurately capture the emissions profile of horticulture and may distort or misrepresent business-level reporting.

Linking to previous comments on the current regulatory environment; the Australian government is asking *businesses* to undertake reporting via mechanisms such as climate-related financial disclosures obligations, however, DCCEEW are only providing aligned guidance to the farmgate as outlined in the proposed guidelines. This inconstancy is problematic for all agriculture businesses who operate beyond the traditional farm gate boundary and is particularly acute for the horticulture sector. The current guidance therefore must be made sufficient to support agriculture businesses to produce business level emissions inventories.

Due to these complexities, guidelines for emissions accounting in horticulture must be fit-for-purpose, covering the multiple stages of extended and complex business operations.

Data Gaps in Horticulture Emissions

Prior work published by AFPA (see appendix 1 & 2) has demonstrated significant gaps in the sector's emissions data and the absence of a baseline for the horticulture sector as a whole. Best estimates suggest that horticulture accounts for approximately 1% of total agriculture emissions. However, there has been no wide-scale study of the emissions contribution of Australian fruit production, and only one major study of Australian vegetable production in 2008 (as noted in DCCEEW's consultation material).

Unlike other agricultural sectors, the Australian horticulture industry lacks comprehensive, publicly available data on emissions intensity for most individual crops (e.g. bananas, apples, oranges, etc.) and there are no nationally recognised average emissions intensity measures for the majority of fresh produce crops. Without these figures, larger producers, wholesalers, and retailers that aggregate or procure produce cannot accurately report Scope 3 emissions.

Furthermore, existing research, both in Australia and internationally, varies in the application of system boundaries and methodologies for calculating horticultural emissions. For example, the 2008 vegetable study did not account for a range of known greenhouse gas sources, including post-harvest activities such as transport, storage, and packaging.

The lack of data in the horticulture industry can in part be attributed to the complexity of the industry, which operates across multiple different products (i.e. bananas, berries, potatoes, oranges), production systems (i.e. covered crops, glasshouse production, field production) and crop types (i.e. orchard, row or vine). This complexity is further fuelled by the inconsistency, even within government, of measuring emissions at a business or farm gate level.

Given the lack of data, the horticulture sector will be uniquely placed over the short term to create data sets that could align with guidelines developed by Government. This adds increasing importance to getting guidelines correct and consistent.

AFPA Common Greenhouse Gas Accounting Framework

In the absence of common guidelines, developed either in Australia or overseas, the AFPA developed a Common Greenhouse Gas Accounting Framework for the horticulture sector with external support. These guidelines aimed to ensure that as members of the AFPA and other horticulture companies undertook greenhouse gas accounting activities that these were done consistently, and in a way that ideally, data could be aggregated to support broader industry level understanding.

Member companies collaborated to make decisions across nine key components of GHG reporting, creating a practical, sector-specific framework that is now publicly available.

Launched in early 2024, the Framework supports consistent and credible emissions estimation across diverse horticulture enterprises and provides a foundation for future industry-wide reporting. It is based on the GHG Protocol Corporate Standard and Agricultural Guidance, and while developed prior to this investment, has been cross-checked against Agriculture Innovation Australia guidance for sectoral GHG reporting, to best ensure its alignment with emerging whole-of-horticulture reporting approaches.

Key components the AFPA's Common Accounting Framework are the agreement to set boundaries within the horticulture sector as "at the first point of sale" acknowledging businesses activities beyond the farm gate. The HGAF tool was also agreed to as the calculation tool, however it should be acknowledged that it is unable to support emissions calculations across a whole business, with a focus on farm gate only. While this and other limitations need to be addressed, this tool was considered the best option available and having a common calculator was of greater value to members in the long term.

The development of this Framework provides the first step toward addressing the previously outlined data and capability gaps, offering a practical reference for businesses and regulators alike. The AFPA Framework should therefore be considered by DCCEEW as a key reference as both pieces of work can complement each other, and in combination support greater consistency across the sector.

Recommendations and Conclusion

The Australian horticulture sector faces significant challenges in meeting emerging regulatory requirements. Without clear, practical government guidance and support, the opportunity to align emissions accounting and reporting will be lost, creating many disparate methodologies that will leave government and industry stakeholders unable to engage in the outcomes of any reporting.

The development of these emissions standards and report guidelines are therefore critical, but to be effective, they must:

- Recognise the unique characteristics of horticulture, including the operation of business activities and records of emissions at an enterprise level, not purely a farm gate
- Reflect the current regulatory environment and ensure that guidance and common requirements framework is in alignment with these obligations
- With respect to horticulture, reference the AFPA's sector-specific Common Greenhouse Gas Accounting Framework to support consistency and ensure government material is fit-for-purpose.
- Be supported by government investment in data development, training, and extension resources, enabling producers to build capability over time.

DCCEEW can also play an important role working with other Commonwealth Government departments and regulatory agencies to raise awareness of the specific challenges faced by horticulture, helping ensure that expectations are realistic, practical, and achievable for the sector.

Taking a collaborative approach will ensure that horticulture can both comply with emerging reporting requirements and continue to deliver sustainable, reliable, and high-quality fresh produce to domestic and international markets, strengthening the sector's resilience and contribution to Australia's economy and food security.

We would welcome an opportunity to meet and discuss these recommendations in more detail, to support the development of guidelines that are practical, achievable, and fit-for-purpose for the horticulture sector.

Appendices

Report 1 - AFPA Detailed GHG emissions from across the Australian horticulture sector – 2023

Report 2 - AFPA and carbon emissions comparative report – 2023