



A SUSTAINABILITY FRAMEWORK FOR AUSTRALIAN GROWN HORTICULTURE



MATERIALITY ASSESSMENT

What is important to Australian horticulture's stakeholders?



Hort
Innovation

APRIL 2020

ROTH
RURAL



SUMMARY

What is important to Australian horticulture's stakeholders?

Australia's horticultural producers provide fruits, vegetables, nuts and nursery and landscaping plants to nourish and nurture people around the world. Sustainable, ethical horticultural production is vital to sustainable development.

Horticulture Innovation Australia is working with the sector to develop a framework to measure the sustainability of current production. This will provide a structure to guide the gathering of reliable, credible information about the sustainability, ethics and safety of farming practices. This information can then be communicated transparently with stakeholders and can help to focus investment on areas for improvement.

To focus the Horticulture Sustainability Framework on those things that are most important to stakeholders, a materiality assessment was undertaken over the summer 2019-2020.

Perspectives were gathered from people along the supply chain - from growers through to consumers. Interviews, an online survey and a detailed document review were completed.

Twenty one material topics were identified, grouped into six themes:

- Vibrant, ethical, resilient businesses and employment
- Nutritious, quality, safe food
- Healthy landscapes
- Thriving communities
- Careful use of inputs
- Climate and energy.

A comparison of the relative importance of each topic for each stakeholder group found that topics most important to external stakeholders (including consumers, customers, investors, communities, environment groups) were similar to those important to people within the horticulture sector.

Across the supply chain, the topics found to be most significant were:

- Labour – safe and ethical work
- Productive, profitable farms & nurseries
- Biosecurity
- Minimising impacts on waterways
- Water use
- Climate variability and adaptation
- Best practice management.

A set of potential indicators, metrics and data sources to measure the sustainability of Australian horticultural production have been identified for each topic.

The project will now work with horticultural industries to review and prioritise these and work together to set goals for a sustainable, ethical and resilient future.

Gathering the information will help Australian horticulture to share its stories of sustainable and ethical food and plant production.

Acknowledgements

Thank-you to all those who have contributed through interviews, the online survey and the project reference group.

Photographs: Tim White, Ingrid Roth, Guy Roth

The Horticulture Sustainability Framework (HA19001) is an initiative by Hort Innovation - a not-for-profit, grower-owned company that delivers more than \$110 million in research, development and marketing activities on behalf of Australian growers each year. This whole-of-horticulture project has been funded by Hort Innovation using Australian Government contributions.

PURPOSE & STAKEHOLDERS

Towards a sustainable future

Economic, environmental and social sustainability is important to Australian horticultural growers, producers and industries. Customers, consumers and investors are also seeking to know more about the sustainability and ethics of how their food and other products are produced.

In response to consumer and investor interest, companies around the world are measuring and reporting on their sustainability performance. Over 90% of listed companies now report on sustainability, including many companies that source horticultural produce.

Globally, members of the United Nations have committed to the 2030 Agenda for Sustainable Development, which draws together many existing international agreements into seventeen Sustainable Development Goals which nations and many corporations are now working towards and reporting against. Sustainable, ethical horticultural production is vital to these goals.

Sustainability means many things to different people. To measure the sustainability of horticultural production in Australia, it is logical to focus on those topics that are most relevant and most important to the sector's stakeholders - from growers and their suppliers through to consumers and communities. This materiality assessment was undertaken to identify those topics.

Purpose of a Horticulture Sustainability Framework

Industry leaders are seeking for the Horticulture Sustainability Framework to provide a process to measure horticulture's sustainability in order to:

- Tell the story of Australian horticultural production in providing food to nourish and plants to nurture the world.
- Gather evidence of Australian horticulture's sustainability and food safety credentials to substantiate the 'clean, green & safe' reputation.
- Provide transparency to customers.
- Retain a social license to operate in sensitive environments and issues.
- Publicly commit to striving towards sustainable horticultural production in Australia:
 - Raise industry awareness of stakeholder's perspectives.
 - Establish benchmarks to measure progress over time.
 - Continuously adapt and improve practices
 - Direct research investments to priority areas.

Horticultural producers participate in many assurance, best practice and certification programs. The Horticulture Sustainability Framework is not intended to create an additional compliance requirement on growers. Rather it will draw on the existing information from industry and national programs and data sets to gather the sustainability story across all of Australian horticulture.

Scope

The scope is defined as Australian-grown horticulture, considering all production steps and inputs up to the farm-gate, packhouse or nursery. The supply chain beyond that is considered an important stakeholder.

"Horticulture" for this purpose refers primarily to those industries which partner with Horticulture Innovation. The scope may also include tomatoes and horticultural industries partnered with AgriFutures.

Stakeholders

Stakeholders of Australian grown horticulture were identified to include all people and businesses who purchase or consume horticultural products, those in the supply chain, employees, producers and communities.

Internal stakeholders:

Growers/producers; employees; industry bodies; research; packers; service providers and input suppliers.

External stakeholders:

Consumers; customers (retail and food service); marketers and exporters; financiers and insurers; assurance and certification bodies; governments; regional natural resource management and environment groups; communities; community groups.

Australian grown horticulture Across Australia 11,410 farm and nursery businesses produce over 6.5 million tonnes of fruits, vegetable, nuts and amenity horticultural products each year to nourish and nurture people around Australia and the globe. Over 70,000 people are employed to produce \$13.2 billion worth of produce annually.

Horticulture industries partnered with Hort Innovation

Apple & Pear	Dried Grape	Passionfruit	Mushroom	Almonds	Cut flower	Other industries
Avocado	Dried Tree Fruit	Persimmon	Onion	Chestnut	Nursery	Ginger
Banana	Lychee	Pineapples	Potato	Macadamia	Pyrethrum	Hazelnuts
Blueberry	Mango	Prune	Processing tomato	Pistachio	Turf	Coffee
Cherry	Melon	Strawberry				Tea Tree Oil
Citrus	Olive	Summerfruit	Sweet potato			Native plant foods
Custard Apple	Papaya	Table grapes	Vegetables			Tomatoes

APPROACH

This paper reports findings from the materiality assessment. This is shown in blue in the below timeline of the activities being undertaken to develop a sustainability framework for Australian horticulture.

The assessment method was guided by the Global Reporting Initiative's (GRI) sustainability reporting standards and a modified AccountAbility test (shown at left).

Stakeholders' perspectives were explored through documents, interviews, an online survey and a project reference group.

The initial phase was iterative to identify and refine a list of potentially material topics. It involved:

1. Drawing an initial list of potentially significant topics from the Global Reporting Initiative Standards and knowledge of horticultural production systems.
2. Aligning topics to four elements:
People - Planet - Performance - Product.
3. Refining the list of topics by the project reference groups.
4. Reviewing stakeholder documents to look for mention of these topics and any other key topics relevant to horticulture.
5. Interviewing peak industry bodies, key supply chain stakeholders and researchers provided a list of the top issues from these perspectives.
6. Drawing of 'heat maps' to depict the significant issues found on review of internal and external stakeholders documentation and interviews.
7. Project reference groups reviewing a revised list of potentially material topics.

An online survey then invited a wider group of stakeholders to rank the significance of these issues on their decision making.

The survey was distributed electronically through Hort Innovation's newsletters and social media feeds, via industry newsletters, by peak industry bodies and state farmer organisations, by Agrifutures, to regional natural resource management bodies, to key contacts in banks and insurance companies, to retailers and supply chain organisations and via personal networks of the project team and Hort Innovation staff.

446 people completed the survey distributed across stakeholder groups as shown at right.

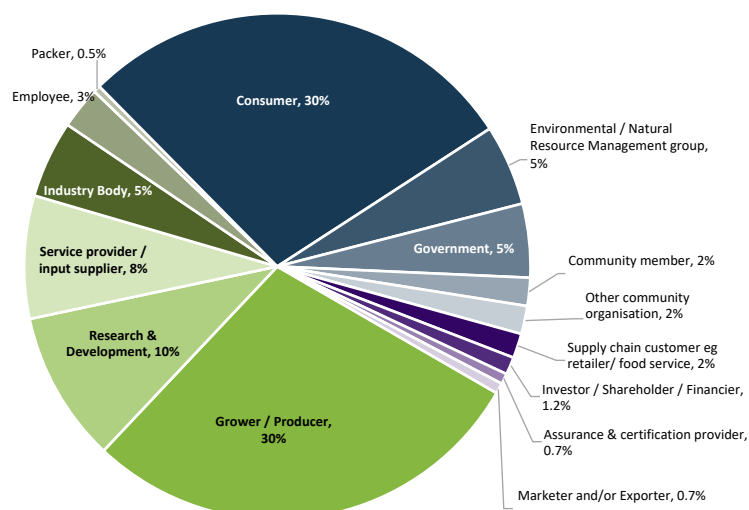
Modified AccountAbility test used to guide the assessment of material topics

Short-term financial performance Sustainability issues which have the potential to influence short-term profitability or are likely to become subject to future regulation e.g. climate risk, GMOs, the cost and availability of both financial and natural capital.	Product What are the values or concerns relating to the industry's products? eg food safety, nutrition, consistency (supply and quality), labelling, responsible marketing, food waste, footprint, traceability.
Policy vs reality Are there stated horticulture industry policies on economic, environmental and social performance? How does this compare with actual performance in practice?	Stakeholder Behaviour and Concerns Internal and external stakeholder practices and concerns. Includes consideration of people and regional issues. Involve direct engagement with key stakeholders.
Peer-Based Norms Issues considered material by leading food producers and manufacturers, NRM groups, competitors, other agricultural industries and other peers.	Societal Norms Focused on future market conditions and attitudes. Insights can be gained from the practices of leading institutional investors, or from voluntary codes of practice, such as the UN Global Compact, the Sustainable Development Goals and climate related financial disclosures.

The distribution of response by location was: Queensland 23%, New South Wales 26%, Australian Capital Territory 1%, Victoria 19%, South Australia 8%, Tasmania 7%, Western Australia 17% and a small number of international respondents. Producer respondents had a good spread across all industries.

Stakeholder documents were further reviewed and consolidated with the survey findings to identify the significant topics for each stakeholder group.

Survey respondents by stakeholder group



Timeline of activities in developing a horticulture sustainability framework



MATERIAL TOPICS

Consolidating stakeholder views gathered through the online survey, document review and interviews gave a refined set of twenty-one material topics, grouped into six themes.

As most topics were found to overlap across multiple of the people-planet-performance-product dimensions initially used, a new set of themes has evolved specific to horticulture.

Topics found to be most important to most stakeholder groups are highlighted in bold text.

The relative importance of each topic to each stakeholder group is shown in the following chart.

Prioritising the key topics

This materiality assessment process has identified, consolidated and prioritised topics of importance to stakeholders. However, many topics were considered important to some degree, resulting in relatively long list of topics.

Further discussion with industries and key stakeholders will now seek to prioritise these topics based on:

- which topics are most significant for Australian horticulture and its stakeholders?
- which topics does the horticulture sector have the ability to influence?

Industry input will also help to refine the groupings and wording of each theme and topic.



VIBRANT, ETHICAL, RESILIENT BUSINESSES AND EMPLOYMENT

Safe & ethical work

Industry capacity
Productive, profitable farms & nurseries

Biosecurity



NUTRITIOUS, QUALITY, SAFE FOOD

Nutritious, quality food for better diets
Food safety and traceability
Food waste



HEALTHY LANDSCAPES

Best practice management

Minimising impact on waterways

Nutrient, soils & land management

Water use

Biodiversity & Pollinators



THRIVING COMMUNITIES

Greener spaces better places

Contributing to communities

Trade and industry growth for a prosperous Australia



CAREFUL USE OF INPUTS

Packaging

Farm waste

Pests management and agricultural chemicals



CLIMATE AND ENERGY

Climate variability and adaptation

Carbon value and greenhouse gas emissions

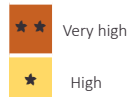
Energy use



MATERIALITY ACROSS OUR SUPPLY CHAIN

What is important to our stakeholders' decisions about our produce?

Significance to decision making



Our Stakeholders:

Producers
Employees
Industry peak bodies
Service and input providers
Research & Development
Financiers, investors, insurers
Marketers & exporters
Retailers & Food Service Customers
Consumers
Government
Environment groups
Communities



VIBRANT, ETHICAL, RESILIENT BUSINESSES AND EMPLOYMENT

Safe & ethical work	★★	★★	★★	★	★	★	★★	★★	★★	★★	★	★★	
Industry capacity	★	★	★	★	★							★	
Productive, profitable farms & nurseries	★★	★	★★	★	★	★★	★★	★★	★	★		★	
Biosecurity	★★	★★	★	★★	★				★★	★★	★★	★	

NUTRITIOUS, QUALITY, SAFE FOOD

Nutritious, quality food for better diets	★★	★★	★	★★	★		★	★	★★		★	★★	
Food safety and traceability	★	★	★	★			★	★	★★	★		★	
Food waste	★	★★	★	★				★★	★★		★	★	

HEALTHY LANDSCAPES

Sustainable, best practice management	★★	★★	★	★	★★	★	★★	★	★★	★	★	★★	
Minimising impact on waterways	★★	★	★★	★★	★★		★		★★	★★	★★	★★	
Nutrient, soil and land management	★★	★	★	★	★		★	★	★★	★	★★	★★	
Water	★★	★	★★	★★	★★	★		★★	★★	★★	★	★★	
Biodiversity & pollinators	★	★	★	★★	★	★		★	★★	★	★★	★★	

THRIVING COMMUNITIES

Greener places better spaces	★★	★	★	★				★★			★		
Contributing to communities	★		★	★	★			★	★★		★	★	
Contributing to a prosperous Australia through trade and industry growth	★	★	★			★	★★	★	★				

CAREFUL USERS OF INPUTS

Packaging		★★	★				★	★★	★			★★	
Production Waste	★	★	★					★★	★		★	★	
Pest management and agricultural chemicals	★★	★	★★	★	★		★★	★	★★	★★	★	★★	

CLIMATE AND ENERGY

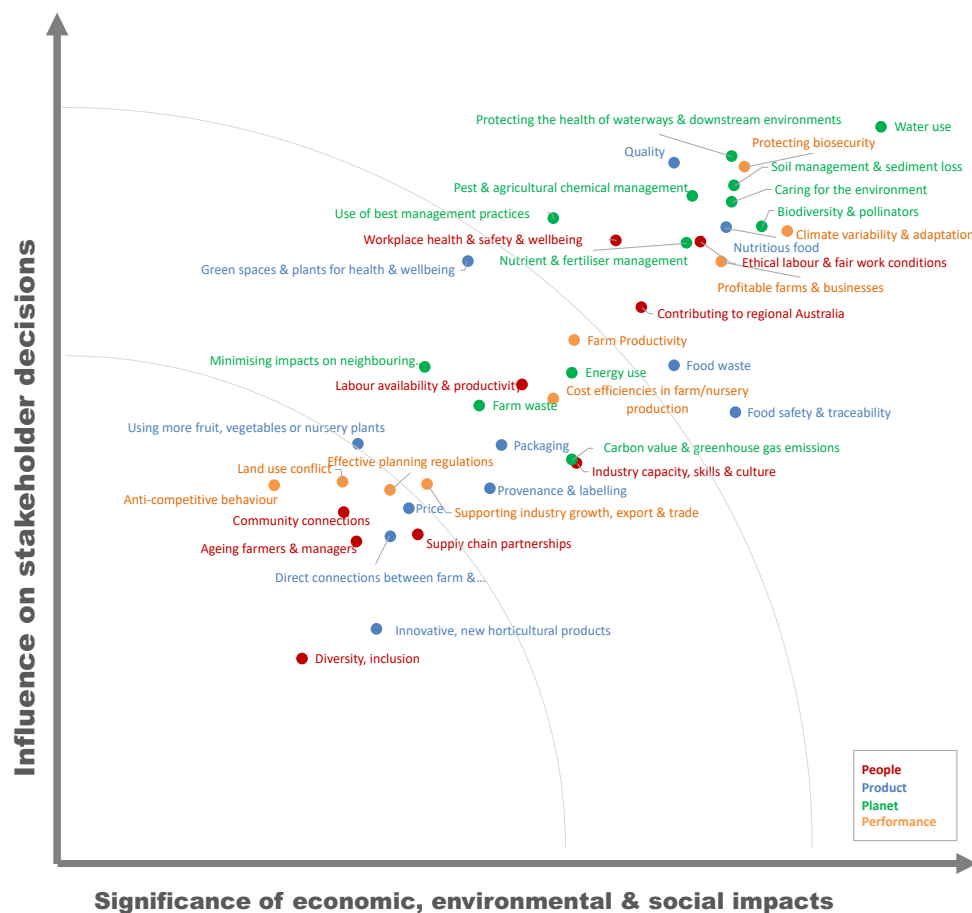
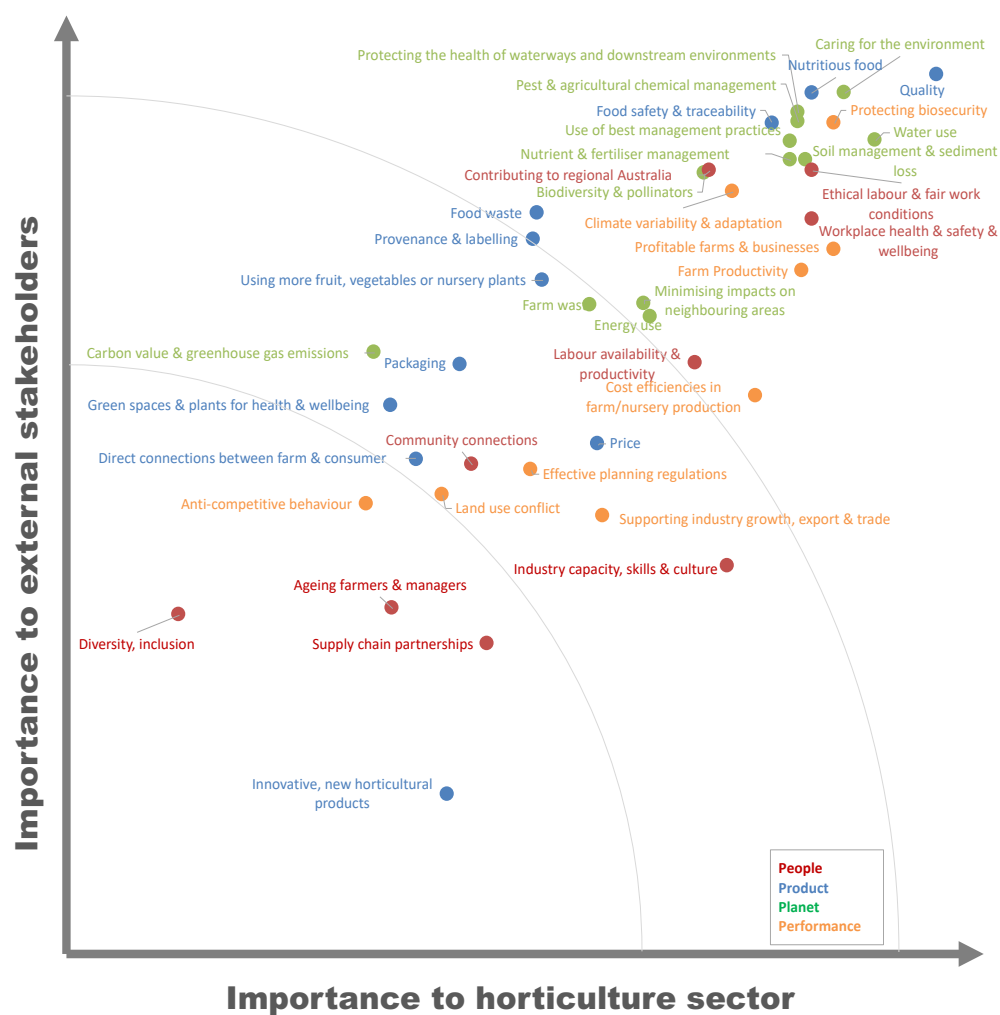
Climate variability and adaptation	★★	★★	★	★	★	★★	★★	★	★★	★★	★★	★★	
Carbon capture & greenhouse gas emissions			★		★	★★		★★	★		★★	★	
Energy use	★	★	★★				★★	★	★			★	

Stakeholder's rankings of the significance of the topics on their decisions about Australian grown horticulture are illustrated in the first graph. It shows that the topics important to external stakeholders are very similar to those that the horticulture sector cares about.

The influence of topics on stakeholder's decisions also aligned closely with the expert views of the economic, environment and social impacts of those topics (second graph).

Comments gathered through the survey indicate there is much potential for industry to communicate with stakeholders to develop a shared understanding of these topics, how they are managed by industry and the challenges that industry faces to manage these. The selection of comments is shown colour coded by theme.

Survey comments also identified a value placed on 'buying Australian' and supporting Australian producers.



“ What did people say? A selection of comments received in online survey

Paying people a decent wage, including the farmers and employees. Consumer SA

I have a definite problem with cost of Australian products compared to imported products... my income does not always allow my preference for Australian products to rule my purchases... Is cost of electricity, fuel dominant drivers of production costs? Consumer NSW

It is too competitive. I worry about the big price dips that occur and then the significant waste that occurs from not picking. Industry body

Farmers using contractors who engage illegal labour are getting a competitive cost advantage over the farmers who are only engaging ethical labour. Grower NSW

Labour cost is too high for the grower and pushing the veggie price up for the consumer. Employee Vic

Cost of production in Australia is too high - wages, power, insurance and fuel costs continue to rise while returns for produce stay the same. There is no transparency in the market for the grower to make any informed decisions. I am given no live sales information, no live information on pack outs. I have to wear ALL the costs and risks of production and then trust that the rest of the supply chain has my interests at heart too. Grower Tas

The cost of producing fruit and vegetables is increasing with more requirements from retailers. The return for product is not enabling farmers to sustainably keep producing product. Supply Chain Customer

There needs to be greater transparency in the food system so consumers value and trust Australian growers more. Consumers are often side-lined in conversations about sustainability. We are not just interested in price, taste and convenience. Provenance and connection are increasingly important as is the impact of climate change. Supply chain customer Tas

Need to promote the clean green grown in Australia brand. Government Qld

Clear labels are a must 'buy Australian'. Consumer Qld

Stop importing produce that aren't held accountable to the same testing, regulations and paperwork that Australian produce are required to adhere to. For the benefit of the industry, the consumer and biosecurity. Grower NSW

Need to focus on producing food that has nutritional integrity - not just looks. Service provider Qld

Australia is a fantastic food producer but falls short when it comes to utilising everything we grow. Research SA

Done right this sector can add immense social, environmental and economic value. We need to farm in a way that is regenerative and that produces healthy, clean and nutritious food. Greening our landscapes and cities is critical too. Environment / Natural resource management group

Regenerative farming practices should be adopted by all areas of horticulture to ensure security of food supply. Consumer Qld

Health of rivers need to be prioritised. Small scale sustainable production giving local communities benefit should be prioritised over industrial scale water hungry projects. Consumer NSW

Water use efficiency of the crops grown in Australia needs to be a critical consideration in the face of climate change and reduced water availability. Environment / NRM group Vic

Farmers need stronger support to improve sustainable agricultural practices. There is a conflict between big business and its goals and much of what is required to create sustainable agriculture. Smaller farmers require education and policy supports to change. Grower SA

Our greatest concern for our sustainability is reliable and affordable irrigation water. Grower Vic

I would like to see farmers, horticulturalists being honoured and valued by our governments.... By not flooding the markets with cheap, substandard possibly contaminated imports. Consumer WA

Protection and support of our 'Growers' in every way possible'... Stop the importation of all foreign grown foods, that compete with our own Australian Growers !! Consumer Qld

Save land for agriculture. Sydney land is now all covered by houses. Consumer NSW

Allowing overseas imports when Australia already has an industry in that field is ludicrous. Promote Australian products and biosecurity. Grower WA

Allowing overseas imports when Australia already has an industry in that field is ludicrous. Promote Australian products and biosecurity. Grower WA

As a consumer, my main concern is using minimal packaging and buying organic when I can afford it. These are the two ways that I feel I can easily contribute. Most of these other factors require so much research to ascertain sustainable practices, that it becomes too difficult. Consumer Qld

Much Australian produce is over packaged creating a huge amount of waste and increasing costs for producers. Most of the packaging is plastic (fossil fuel based), and is causing significant problems environmentally.... My pet hate is the plastic producer identification stickers on fruit. Consumer WA

Please don't put our food in plastics - paper bags or paper mâché containers so they can break down or be recycled. Consumer WA

Less packaging on fruits and vegetables sold in Woolworths, Coles etc. I don't buy the pre-packaged apples, bananas, tomatoes etc. Consumer WA

The use of pesticides needs to be reduced. Supply chain customer WA

Stop killing rivers reefs and soil with ridiculous unsustainable practices. Consumer Tas

Still far too dependent upon chemical inputs - pesticides, fertilisers. Research & Development Vic

Biodiversity support and carbon drawdown. Consumer NSW

If the industry doesn't recognise and get its head around consumer-driven buying decisions re climate change & ethical production, then the industry will lose out to the competition. Environment / Natural Resource Management group

Climatic sustainability of horticulture in Australia is a front a centre topic however it is largely interlinked with other key elements including effective business development and management, increased urbanisation and changing consumer preferences and trends. Industry body

WHERE TO NOW?

Industry guidance

Over coming months industry and key stakeholders will work to:

- Set sustainability goals for Australian horticulture.
- Prioritise - what is most important? What can industry influence?
- Identify indicators for measuring what is most important.
- Gather data on these indicators.

Goals

Goals demonstrate commitment to sustainability, prioritise future actions and guide the selection of the best indicators and measures to track progress.

The project's reference group decided that sustainability goals are important for Australian horticulture to have something to work towards and to give meaning to the process. Setting clear, agreed goals will allow the industry to focus on those topics and indicators that are most important.

Given the diversity of horticulture, it is important to understand the goals, commitments and concerns of each individual industry. To aid this, the potentially material topics were mapped to:

- Goals, outcomes and indicators found in Strategic Investment Plans, Strategic plans and / or websites for each specific industry.
- Industry assurance practices (Horticulture for Tomorrow, Hort360, Fair Farms)
- Vegetable Industry Environmental Assessment outcomes and measures
- Priority issues of customers and investors
- Global goals (Sustainable Development Goals) and sustainability reporting standards (Global Reporting Initiative)
- Existing data (summarized from a detailed assessment).

Potential goals have been drafted by consolidating this information across all of horticulture to the refined list of material topics.

Indicators and metrics

There is no simple measure of sustainability. An industry or organisation can measure and report on its sustainability by using a set of agreed indicators and metrics of important, measurable elements. Selecting these indicators of sustainability is a balance between an 'ideal' measure and the data that is available or could be cost-effectively collected. Where long term data sets exist it is logical to use metrics consistent with these so that changes over time may be tracked.

Existing metrics and data sets from a range of sources have been mapped to the potentially material topics.

An assessment of the availability of data and possible indicators and metrics has been suggested for each topic.

These will be circulated to industry in a detailed discussion paper to work through over the coming months.

Information can then be gathered to publicly report on the sustainability of Australian horticultural product.



For more information or input

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