

AIPH

The world's
champion for the
power of plants

Sustainability

AIPH GLOBAL INDUSTRY SURVEY ON SUSTAINABILITY 2021



Foreword

At a time when we face the twin perils of accelerating climate change and biodiversity loss, it is so important for those who can make a positive difference to step forward.

Through this new strategy, AIPH is truly taking a leadership role in the world of horticulture, with the aim to inspire a global appreciation of plants and the critical role they play in sustaining life on earth and providing a source of health and wellbeing for all. Alongside this, AIPH is the driving force behind World and International Horticultural Expos, with the commendable ambition for these to be recognised as the world's most sustainable major events.

Crucially, through its Expos and urban greening initiatives, AIPH is promoting climate action and the wider sustainability agenda right where it most matters, in cities around the world. Not only does this provide vital greenspace close to where so many people live, it also creates unparalleled opportunities to build awareness, and to educate and inspire new generations to take action to improve their local environments.

It has been a privilege for me to work with AIPH in this endeavour, combining my passion for ecology and the natural world, alongside my experience in the sustainability of major events. This report is a very welcome, timely and important contribution towards a sustainable future.



David Stubbs
Independent Sustainability Expert

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Introduction

Sustainability is fundamental to the mission of AIPH: to build a balanced and prosperous future for all, sustaining the planet for this generation and the next. The concept of sustainability has many layers, extending from a global industry to national and regional industry organisations and horticultural businesses across all sectors of the supply chain.

Commitment to sustainability can be political, commercial, and personal. The fundamental understanding of sustainability is, in the broadest sense, the capacity of something to maintain or sustain itself in a recognisable form over time.

In the current political, philosophical, and practical sense, it is defined as “meeting the needs of the present without compromising the ability of future generations to meet their needs”, and makes specific reference to natural resources. This definition is particularly relevant for the ornamental horticulture industry that both uses and produces natural resources.

At the Spring meeting in April 2021, AIPH members approved the adoption of the **AIPH Sustainability Policy** (*Annexe I*). The policy describes the ambitions of AIPH to serve the ornamental horticultural industry and to support the industry as a sustainable and resilient global industry across all aspects of the supply chain.

AIPH prepared a **Sustainability Survey** to identify areas where the organisation can have the most impact in supporting the global ornamental horticultural industry in reaching, maintaining, and extending resilience and sustainability across all supply chain sectors.

The survey serves:



To be more visible in what we are doing



To identify strengths in the industry



Reveal areas where ALPH can assist the industry

The results of this survey are intended to respond to the key principles of sustainable development: namely, inclusivity, integrity, stewardship and transparency.

The survey

The survey was conducted over a period of weeks through August and September 2021. It was an online survey, and consisted of 35 questions addressed to industry organisations that represent the ornamental horticulture industry.

The questions were structured to tease out which aspects of the **ALPH Sustainability Strategy** are currently well aligned with industry practice, and how well the industry is positioning itself and promoting itself as sustainable.

The questions were asked of the industry organisation itself, and of their knowledge and perception of the performance of individual businesses in their organisation.

Responses were received from a total of 32 organisations from 25 countries, which represents a broad spectrum of the global ornamental horticulture industry.



Australia, Belgium, Brazil, Canada, China, Colombia, Costa Rica, Denmark, Ecuador, Germany, Greece, Indonesia/Jakarta, Ireland, Italy, Japan, Mexico, New Zealand, Poland, South Korea, Switzerland, Thailand, The Netherlands, Turkey, United States of America.



25

Countries participated
in the survey

32

Organisations responded
to the survey

8

Sustainability policies
captured through
this survey

66%

Organisations
members who have no
documented business
sustainability policy

40%

Growers aware
that sustainability
is important to their
business future

80%

Respondents initiate
or support campaigns
for environmentally-
friendly alternatives to
pesticides, fungicides
or herbicides

Industry sustainability policies

The first part of the survey asked questions about industry sustainability policies. Sustainability policies serve to define the important factors that a business or organisation considers they have influence over, and, through this, make a commitment to ethical and environmentally sound practices.

Approximately two-thirds of the respondents reported that very few or no growers in their organisations have a documented business sustainability policy.

In some regions, growers are quite advanced in their sustainability commitment and do have a documented business sustainability policy.

A list of eight sustainability policies was captured through this survey (see *Table I*).



Table I:
Sustainability policies relating to the ornamental horticulture industry

Australia

<https://www.greenlifeindustry.com.au/static/uploads/files/ngia-env-sust-pos-2014-final-wfymulfiescm.pdf>

Colombia

https://florverde.org/wp-content/uploads/2021/09/202107_EstandarFSF_V7.1.2_English.pdf

Ireland

<https://www.origingreen.ie/globalassets/origin-green/og-publications/sustainable-horticulture-assurance-scheme.pdf>

Italy

<https://www.vivaifiori.com/>

Japan (*only in Japanese*)

<https://otakaki.co.jp/sdgs/>

Japan

<https://www.jalc.or.jp/english/activities01.html>

Netherlands

<https://np-royalfloraholland-production.s3-eu-west-1.amazonaws.com/8-Over-ons/Documenten/royal-floraholland-jaarverslag-2020-nl.pdf>

Switzerland

<https://www.jardinsuisse.ch/de/verband/uber-uns/branchenleitbild/>

The survey then asked whether the organisation itself had a documented sustainability policy, to explore how well the organisation might be leading growers by example. All but one of the organisations that reported that most growers have a sustainability policy (25%) have their own organisational sustainability policy.

This suggests that organisations can be influential and lead, support, and encourage growers to adopt sustainability policies. Certainly, almost 60% of organisations do have plans to promote sustainability, and only 10% are not yet considering sustainability as a strategic objective.

Motivation for sustainability

The lack of a documented sustainability policy doesn't necessarily mean that the industry or individual growers don't address sustainability. Despite the low proportion of growers that have a documented sustainability policy (only a quarter), more than two-thirds of the countries that completed the survey report that some or most of the production is from growers certified by an external scheme that promotes sustainability.

This indicates that sustainability is a matter that the industry takes seriously. However, there is still a significant portion of the global industry that is not positioning themselves as sustainable.

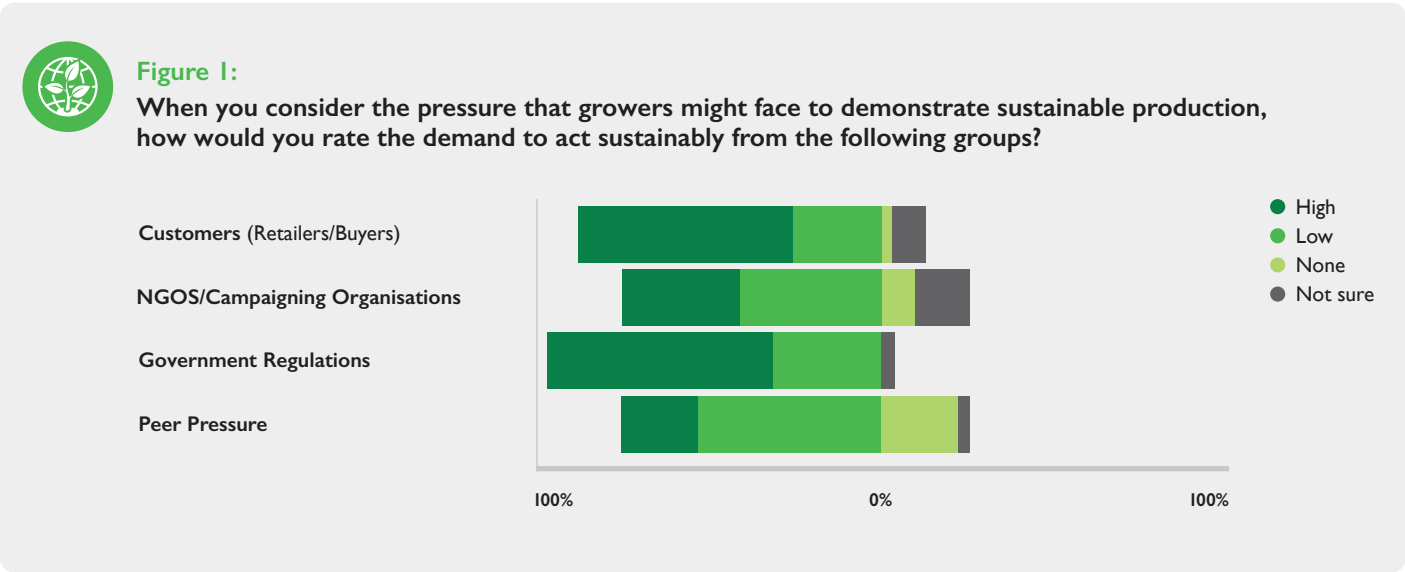
There are many possible reasons why a business might adopt sustainability processes.

The survey asked a set of questions to find out the current status. The results indicate that only 6% of growers consider addressing sustainability concerns to be critical to business success, although almost 50% address sustainability issues as part of their business strategy. 40% are aware that sustainability is important and are considering it as part their future strategy.

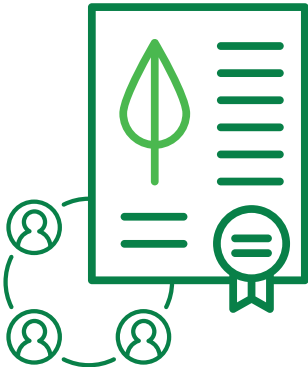
AIPH is interested to know the reasons why growers and grower organisations would adopt sustainable practices.

The survey asked where pressure to do this might come from (see Figure 1). The survey shows that the greatest demand for sustainable action and visibility comes from customers and government regulations.

There is some peer pressure, which suggests a connected, supportive, and collaborative industry. NGOs and campaigning organisations have the least influence.



Only 25% of growers who responded to the survey have a documented sustainability policy



Industry sustainability activities

A sustainability policy is commonly accompanied by a sustainability strategy which outlines activities that address or support the sustainability objectives stated in the policy.

The AIPH Sustainability Policy considers five themes to have priority for the global ornamental horticulture industry.

These are:

- Climate change
- Biodiversity conservation
- Sustainable sourcing and resource management
- Equity and inclusion
- Sustainability education and awareness raising

These five themes directed the questions in the survey that asked about which sustainability topics are the most important to the ornamental horticulture industry.

The survey results indicate that four specific sustainability topics were considered to be important to more than half of the respondents.

The most important sustainability issue's are:

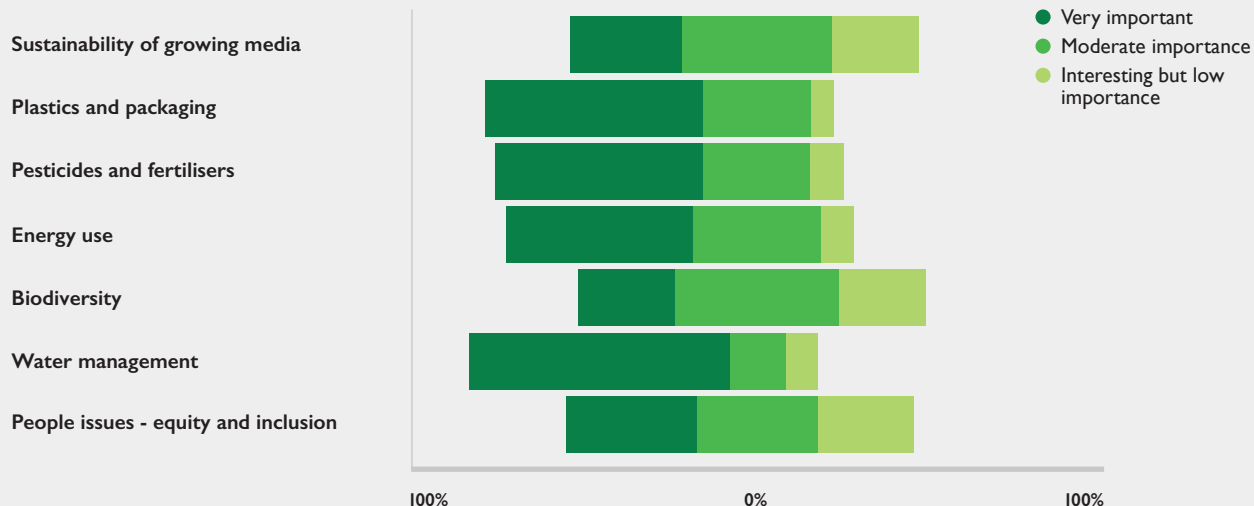
- Water management
- Plastic and packaging
- Pesticides and fertilisers
- Energy use

In general, biodiversity and sustainability of growing media currently get the least attention from growers (see Figure 2).



Figure 2:

Rate importance of the following sustainability issues for growers in your country/region

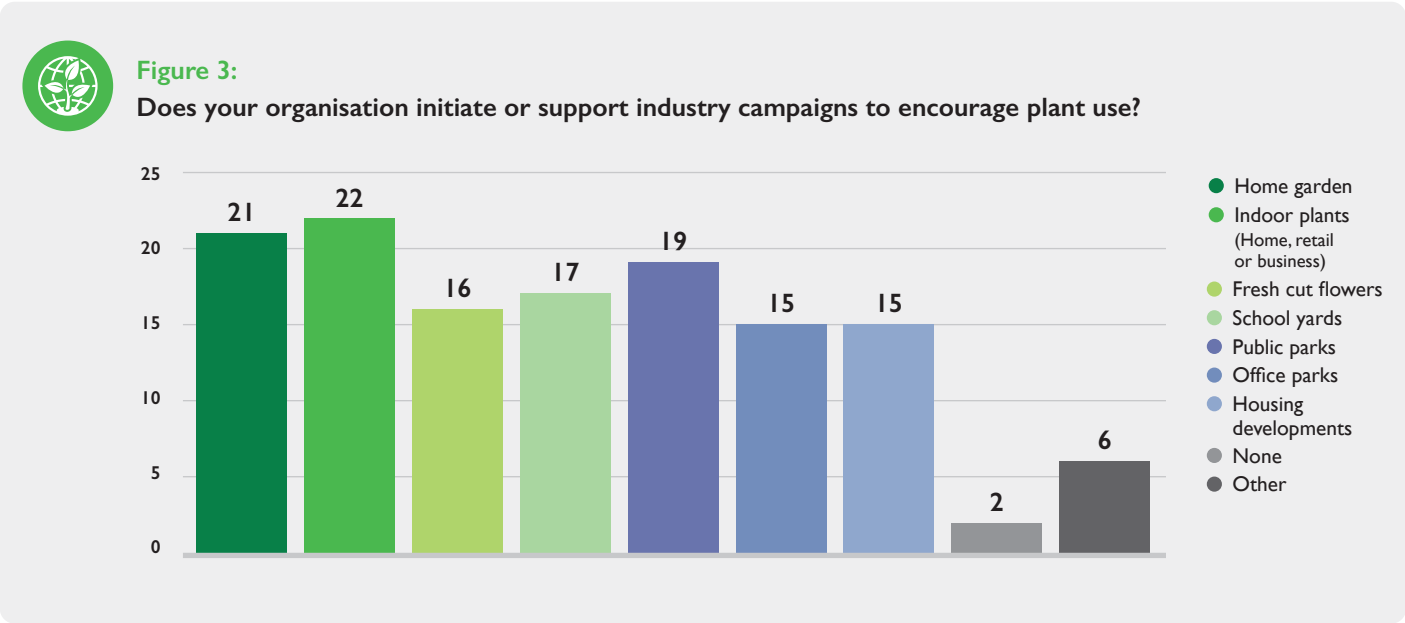


Industry support for sustainability initiatives

The survey then investigated which aspects of sustainability grower organisations initiated or supported. This was to tease out areas where the ornamental horticulture industry is addressing sustainability issues, but perhaps not promoting it widely.

The use of plants in all aspects of urban life is a **primary focus of AIPH** which promotes the essential contribution that plants make to climate change adaptation and their supporting role in climate change mitigation.

The survey asked whether the organisations initiated or supported campaigns to encourage plant use in a number of scenarios (see *Figure 3*).



Encouraging plant use in home garden and indoor settings were the most common campaigns reported in this survey, although there is also good support for other sectors.

More than 50% of the respondents support or initiate campaigns to encourage plant use in five or more sectors. In the section 'other' mention was made of cemeteries and churches, tree planting initiatives, buildings and infrastructure, and education of school children.

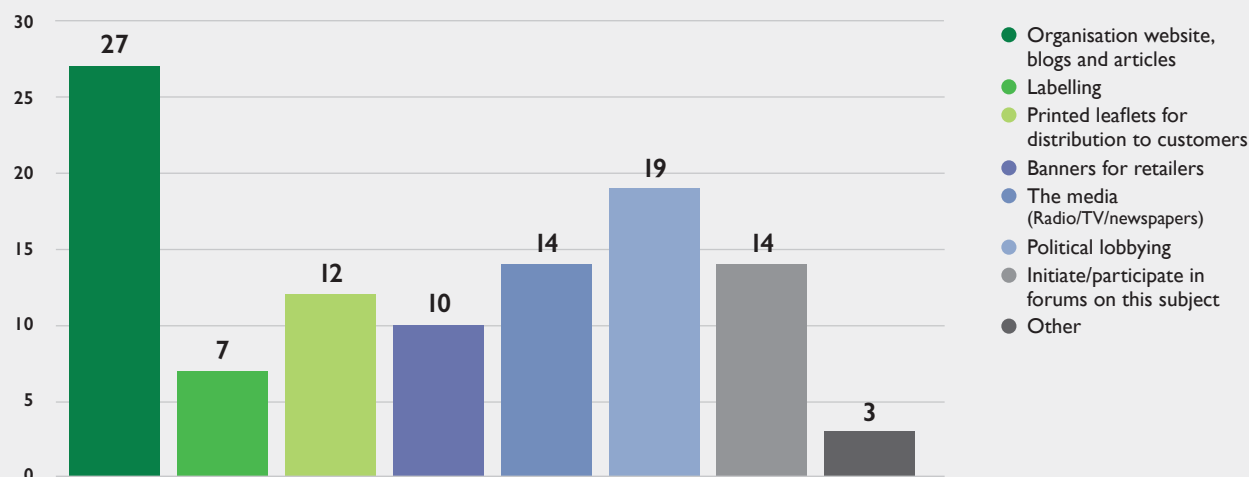
The most common way of promoting these campaigns to encourage plant use is through the organisation's website (see *Figure 4*). The second most common method is by political lobbying. Almost 40% of industry organisations use four or more channels, and more than 50% use three or more channels.

Other ways that the industry encourages plant use include public-private collaboration projects and influencing the influencers. This shows an **industry that is very active in progressing its future by encouraging plant use.**





Figure 4:
What medium or channels do you use?



The survey then asked about specific campaigns that promote plants. For promoting plants that contribute to biodiversity, campaigns for a market range are a more common practice than promoting specific plants.

Other activities that promote plants that contribute to biodiversity are campaigns for plant types to combat invasive plants, encourage biodiversity on business premises, and campaigns for restoring natural areas on flower farms. Thinking beyond the contribution of plants themselves, almost 70% of organisations promote landscape design and planting practices that support biodiversity.

World conservation strategies consider invasive plants to be a major threat to biodiversity, and suggest the use of native plants to combat the risk. The native vs non-native debate in the urban context is complex, however; the use of non-invasive plants is definitely part of a sustainable industry future.

More organisations promote the use of native plants than specifically promote non-invasive plants, yet in both cases, well over 60% of organisations initiate or support these campaigns. Despite this obvious interest in supporting biodiversity, only about half of industry organisations specifically promote biodiversity on farms or nurseries – the actual sites of production.

Environmental awareness and promoting biodiversity include consideration of use of agrochemicals and integrated pest management practices, however almost 20% of respondents do not yet initiate or support these practices.



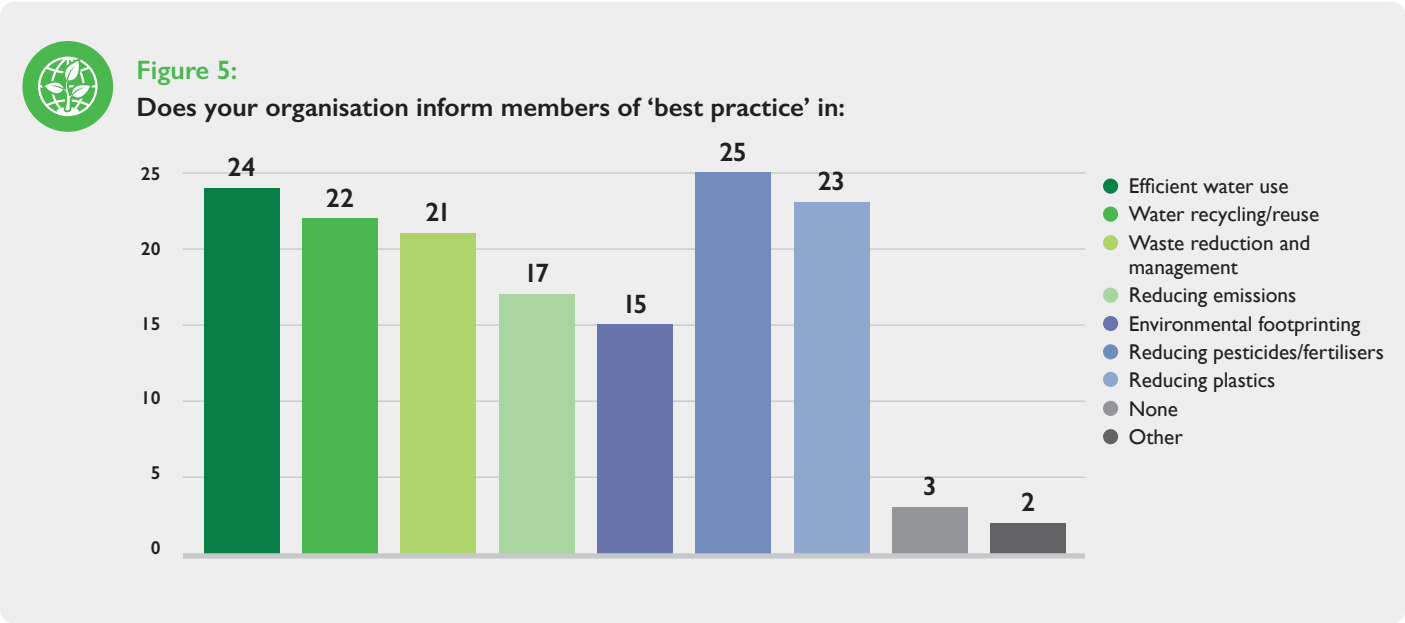
70% of organisations promote landscape design and planting practices that support biodiversity

Best practice for a sustainable industry

An important aspect of global industry sustainability is alignment and consistency of best practice, and this relies on developing and communicating best practice efficiently and effectively.

The most common best practice topics that members are informed about are reducing pesticides/fertilisers, efficient water use, reducing plastics, and water recycling/reuse (see Figure 5).

In the choices shown in Figure 5, topics that were mentioned as 'other' section were sea transport and certification schemes More than 70% of organisations inform members about four or more of these topics.



Industry organisations are also instrumental in initiating and supporting research that informs best practice. Similar to the topics that members are informed about (see Figure 5), the same pattern was seen for research into sustainability topics.

Industry is not only informing members of best practice, it is contributing to the development of best practice, with more than 60% contributing to research in four or more of these topics. As well as the topics that were listed in the survey, one respondent commented that they support research into public-private partnerships.

Reducing plastics was an important topic for best practice (with more than 70% of organisations informing members of best practice), yet only a little more than half of organisations are actually involved in initiating or promoting schemes that reduce or recycle plastic.

The respondents that answered 'yes' to the question about plastic schemes provided brief details of the schemes that they support.

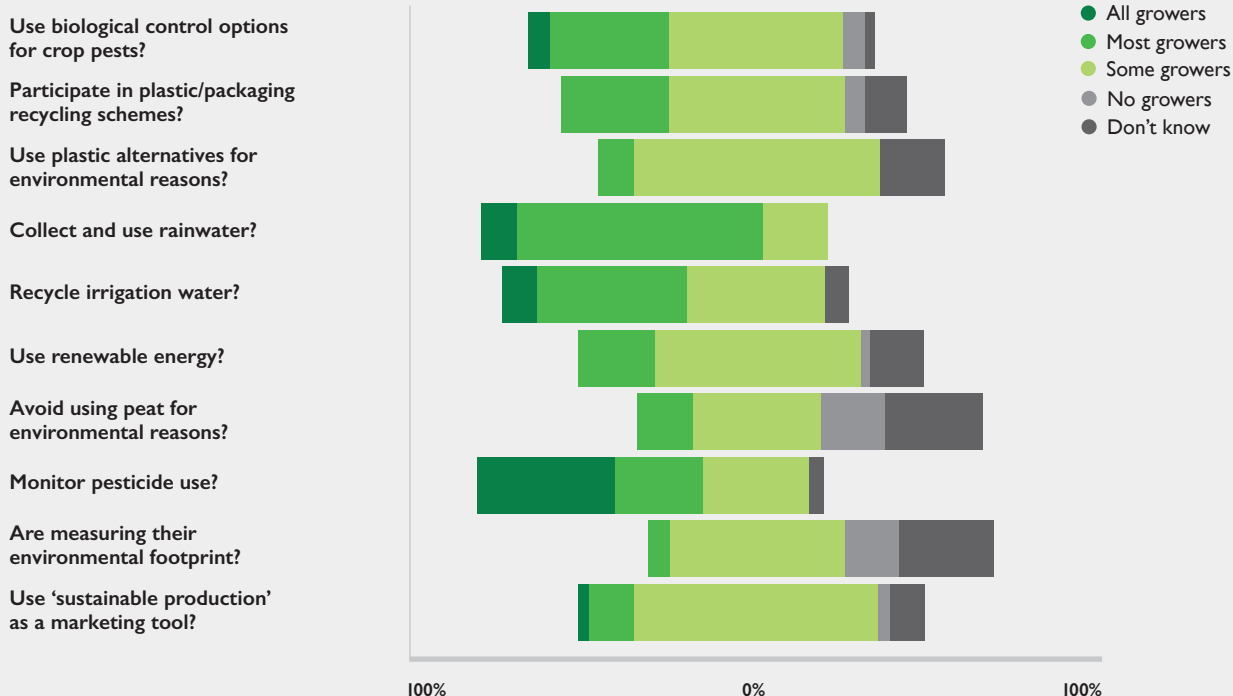
These include recommendations to use plastic alternatives, and many of these involve pilot recycling systems, some of which are supported by government grants, and some rely only on the responsibility of growers.

Industry activity in sustainable practices

Whether or not documented sustainability policies exist, ALPH wanted to use the survey to find out how involved growers are in implementing sustainable practices (see Figure 6).



Figure 6:
What proportion of growers do the following statements?



Water is a consistently important theme, with collecting and using rainwater; and recycling irrigation water; practices that most or all growers implement.

Sustainable pest management is the second most common strategy, with a high interest in monitoring pesticide use and using biological control methods.























There does seem to be a theme emerging of **sustainable practice being used in marketing, with more than 85% of organisations** reporting that some growers market as sustainable producers. Avoiding peat use and measuring environmental footprint are the least common sustainability activities currently undertaken by the global ornamental horticulture industry.

There was a wide range of sustainability activities in which the industry is involved that were not specifically asked about in the survey, and these were provided by respondents (Table 2). This suggests that **sustainability in the ornamental horticulture industry is a wide-reaching and complex subject**, and may have different priorities in different parts of the world, responding to varying production challenges and regulatory priorities.



Table 2:

Sustainability in the ornamental horticulture industry is a wide-reaching and complex subject

<p>IMPACT, MONITORING, AND EVALUATION AGAINST ENVIRONMENTAL PERFORMANCE</p> 	<p>CHOOSING DISEASE RESISTANT AND WATER EFFICIENT CROPS</p> 	<p>OPTIMISE PRODUCTION OF HIGH QUALITY TO MINIMISE WASTE</p> 	<p>USE COVER CROPS TO REDUCE TILLAGE AND HERBICIDE USE</p> 
<p>INCREASE BIODIVERSITY BY USE OF MIXED PERENNIALS</p> 	<p>FIND MARKETS FOR ALL GRADES OF FLOWERS</p> 	<p>GEO THERMAL HEATING</p> 	<p>CONSISTENT REGULATIONS ABOUT PEAT REDUCTION</p> 
<p>USE WASTE MATERIALS AS AN ALTERNATIVE HEAT SOURCE</p> 	<p>PLASTIC RECYCLING</p> 	<p>CIRCULAR ECONOMY</p> 	<p>SEA TRANSPORT</p> 
<p>EFFICIENT ROAD TRANSPORT THROUGH COLLABORATION</p> 	<p>STORMWATER MANAGEMENT</p> 	<p>BIOBASED MATERIALS FOR GROWING PLANTS</p> 	<p>RECOGNITION OF THE BENEFITS THAT NURSERY PRODUCTS DELIVER TO THE ENVIRONMENT</p> 
<p>POLLINATOR-FRIENDLY PLANTS AND BEE HOTELS</p> 	<p>CIRCULAR AGRICULTURE SCHEMES</p> 	<p>REDUCTION OF CARBON</p> 	<p>FARM REFORESTATION</p> 

Social welfare aspects of a business are also part of sustainability. Despite the fact that 66% of organisations reported that they initiate or support campaigns or practices that promote fair working conditions, almost 80% still have some concerns about staff welfare issues

Some organisations report that gender equity and diversity are covered in national legislation and these are therefore not industry-specific actions. Similar comments were received in relation to social equity, yet the survey suggests that there is good industry involvement in promoting social equity regardless of any legislative requirements.

Many organisations report that labour conditions, pay scales, diversity, and gender equity are set in government legislation, and these form part of the required business ethics. Some organisations report that they encourage improved regulations for additional social measures, such as compensation for dangerous or heavy work, fair disclosure of trading data, and specific women-friendly policies.

Many sectors of horticulture rely on seasonal workers, and this presents additional social concerns for industry organisations to consider, such as visas, health-care, and culture.

Communicating, monitoring, and rewarding sustainability initiatives

Some sustainability practices are required by government policy and regulations, as already discussed. Only 15% of organisations reported that there is no legislation.

Monitoring pesticide use was the sustainability activity with the highest overall uptake, and this is likely to reflect government regulations about chemical use (see Figure 6).

If encouraging best practice and creating awareness of legislative requirements are considered to be effective in promoting sustainability throughout the industry, it is valuable to understand the current and preferred means of contacting industry members.

There are many ways that industry organisations communicate with growers, and this may vary around the world. The survey shows that the most common way for organisations to inform growers about legislation is by newsletters and articles on their website, and many organisations also provide webinars and training events. Beyond complying with legislation, recognition can

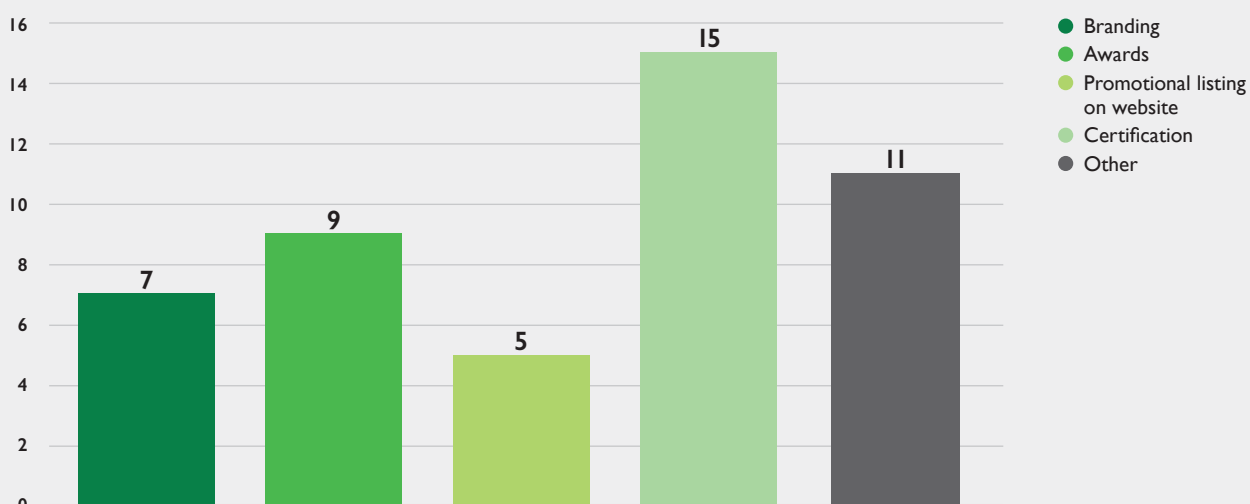
be a powerful motivator for businesses to implement sustainable practices. Survey results revealed that 30% of organisations provide certification, and 20% present awards for commitment and action in sustainable practices.

Branding and listing on websites are also ways in which organisations recognise growers for operating sustainably, and some organisations provide multiple types of recognition. However, almost 20% don't provide any recognition.



Figure 7:

Does your organisation provide recognition for businesses and individuals showing commitment and action in sustainable practices?



A sustainable and resilient ornamental horticulture industry

Sustainability has many facets: responsibility to the environment, respect for staff, compliance with legislation, and we also must consider sustainability of the industry as an attractive and fulfilling career.

The survey asked about careers and education in horticulture.

The answers indicated that the majority of organisations were involved in some way, including supporting landscape and vocational schools and colleges, apprenticeships, professional development, collaborating with universities, webinars and seminars, and providing space on websites to advertise jobs in horticulture.

In addition to supporting people who have already chosen horticulture as a career, industry organisations around the world also engage in educational programmes for schools and the general public. Some respondents commented that **attracting young people to horticulture is quite difficult**.

Activities to promote horticulture as a career include direct dialogue with high schools when scholars are deciding on a career choice, and indirectly by creating an awareness of the benefits of plants through flower displays and festivals, school gardening projects, and design competitions.

Horticultural therapy, healthy eating campaigns, and annual garden and flower shows were described as activities to promote the industry to the general public.



Conclusions

This survey provides a first glimpse into how the global industry is performing through a sustainability lens. It highlights areas where the industry is active though not yet recognised.

Concluding comments from respondents to the survey suggest that the ornamental horticulture industry is recognising that the importance of sustainability is increasing, and the industry is likely to be required to provide evidence of its sustainable actions and strategies.

Enhancing the visibility of the industry as a compliant and sustainable industry is important in securing its future. With this in mind, it is important to consider how the results from this survey can serve to align the ornamental horticulture industry with the **UN Sustainable Development Goals (SDGs)**.

These are the reference point for many cities and organisations against which they commit and measure their sustainability. The UN SDGs that relate to the work of AIPH arise from the strength of our international member network, the **AIPH International Expos**, and particularly our activities in the **Green City** programme.

The responses to the survey suggest areas where more attention is needed. There is concern in the industry that addressing sustainability could be better rewarded, either in brand recognition as a preferred supplier or in financial incentives from consumers, or grants to cover the increased investment that some sustainability initiatives require.

Many growers believe that their commitment to sustainability is a personal as well as a business responsibility.

It is clear from the final comments provided by survey respondents that there is wide variation in the sophistication of sustainability action across the globe. **The industry would benefit from an accepted guidance on sustainability issues and recommendations for best practice.**



Recommendations

In support of a visibly sustainable global industry, AIPH proposes that an annual sustainability survey is developed and conducted to track progress against the five topics of the AIPH Sustainability Policy as indicated below.

These five thematic areas are material to what we do and where we believe we can make the most positive impact:



CLIMATE ACTION

Using plants and green spaces to support climate adaptation and resilience programmes in urban environments



BIODIVERSITY CONSERVATION

Promoting nature in cities and sustainable plant-growing practices worldwide



SUSTAINABLE SOURCING & RESOURCE MANAGEMENT

Adopting circular economy principles, reducing plastic waste, supporting local growers and ethical supply chain management



EQUITY & INCLUSION

Promoting plant growing and green spaces for all, upholding fair and equitable practices across the horticultural value chain, diversity and human rights



EDUCATION & AWARENESS RAISING

Engaging, informing and inspiring people to appreciate the importance of plants and the places where they grow



Each AIPH member would be requested to complete an online survey, and the responses would be entered in the table. The sum of positive responses in each of the columns of **INFORM**, **EDUCATE**, **ACT**, and **ADVOCACY** would be recorded in the column of **GLOBAL COMMITMENT**, and this would indicate progress of the industry toward a sustainable future.

This table would provide a very broad and general outline of the sustainable performance of the global industry.

AIPH Sustainability Topic	GLOBAL COMMITMENT	INFORM	EDUCATE	ACT	ADVOCACY
Climate Change					
Biodiversity Conservation					
Climate Change					
Sustainable Sourcing & Resource Management					
Equity & Inclusion					
Education & Awareness Raising					

This AIPH 2021 Sustainability Survey serves as a pilot to develop a robust online, annual survey that captures the intention, action, and leadership of the global ornamental horticulture industry in our commitment to a sustainable future for the industry and the planet. An annual survey would enable the industry to take account of evolving policies, standards, best practices and technology, and share what we learn.

This forms the core of a strategic action plan to implement the **AIPH Sustainability Policy**, leading to the capacity to develop and promote the most sustainable, ethical, and advanced practices in ornamental plant production, trade, and management.

The survey also serves to guide a pathway for individual horticultural businesses to consider how they monitor and report on sustainability.

Businesses in every sector have become familiar with the requirement and processes of financial reporting. Time and resources are allocated to monitoring, documenting, and analysing financial performance as part of normal business practice.

The same is not yet true of sustainability performance at the business level. **Non-financial reporting is in its infancy, and clarity is not universal of the value of this to a business.** There are two main reasons why a business might monitor and report on sustainability: if it was a regulatory requirement of operating a business; and/or if it were demanded by customers either directly or implied by purchase choices.

A theme that came out of the ALPH Sustainability Survey 2021 was that the extra resource investment in implementing sustainability activities and reporting is not yet recognised by consumers to reflect as financial incentives.

It was also clear that the industry expects visibility of commitment to sustainability to become increasingly important. In preparation for anticipated sustainability regulations to come in the future, the recommendation from this survey is that the global ornamental horticulture industry takes a proactive approach.

A first step in this approach is to consider which aspects of sustainability are material to business success. This will identify gaps in performance and highlight priorities to address.

The term materiality in relation to sustainability refers to issues that are likely to have a significant impact on the company – either positive or negative: they are material to business success. This includes social, environmental, and economic concerns (also called *People, Planet, Profit*) that impact directly or indirectly on business performance.

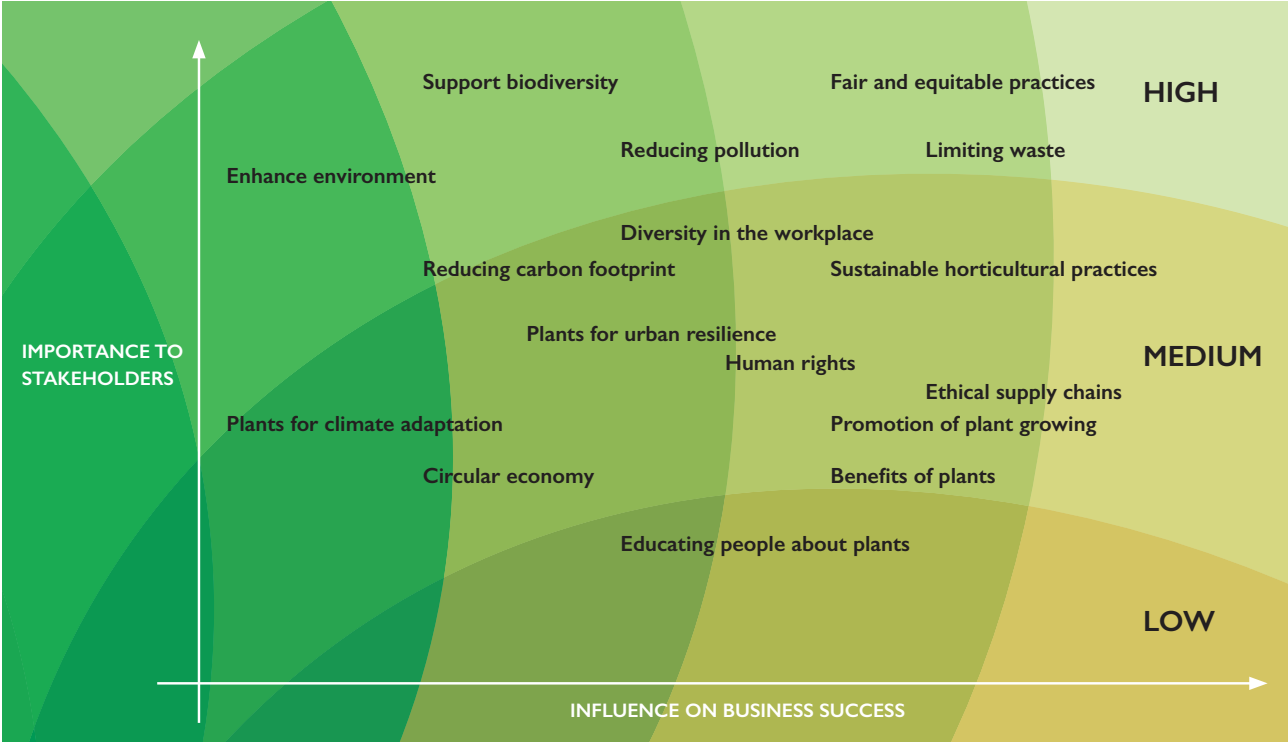
These can be expressed as a materiality matrix by rating the factors and features of sustainable business performance in terms of their relative importance to stakeholders and influence on business success. As with financial success, there are long term and short term considerations.

From the ALPH Sustainability Policy for the ornamental horticultural industry, a range of indicators can be defined/ extracted that can be monitored and inform strategic activities to gain recognition for commitment and achievement to sustainability for different stakeholders across a gradient of priority and time.

The questions for the ALPH Sustainability Survey 2021 were largely informed by the ALPH Sustainability Policy, and the results from the survey aid in positioning these indicators on the matrix.

This materiality matrix, shown below, is a first draft to illustrate how the sustainable performance of the ornamental horticulture industry could be monitored and reported.

ALPH proposes to open discussions with its member organisations to further develop the indicators for the matrix, and to define a suitable monitoring process and regularity of reporting that will enable the industry to demonstrate its commitment to and action for sustainable business and global industry performance. In this way, the industry can provide evidence of substantially engaging with the core sustainability issues in the ALPH Sustainability Policy.



AIPH is grateful to its member organisations for their participation in this survey.

Region 1

Denmark, Finland, Sweden,
United Kingdom, Ireland



Region 2

Belgium, Germany, Italy,
The Netherlands, Switzerland



Region 3

Czech Republic, Greece,
Hungary, Poland



Region 4

Canada, Mexico, USA



Region 5

Brazil, Colombia, Costa Rica



Region 6

Pakistan, Qatar, Türkiye



Region 7

China, Chinese Taipei, Japan,
Republic of Korea



Region 8

Australia, Indonesia, Thailand



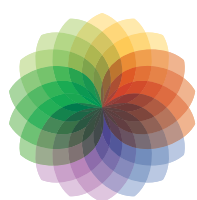
Region 9

South Africa





Our mission is clearer than ever: to reignite and uphold an appreciation of plants that we believe is a basic human instinct.



AIPH

The world's
champion for the
power of plants

AIPH Global Industry Survey on Sustainability 2021

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