



# Horticultural Research Institute

The  AmericanHort Foundation



*Research Roadmap  
Summary*



# Research Roadmap

**Horticultural Research Institute (HRI)**, the AmericanHort foundation, has developed a strategic vision for the future of horticultural research investment.

HRI will use this vision and corresponding report as a living document to direct future research funding and inform leveraging and outreach efforts with partnering organizations and agencies.

## How we came to our vision

HRI gathered delegates representing all segments of the industry and regions of the country for a face-to-face summit to listen and learn. What resulted was a targeted understanding of how HRI can invest to best serve and grow the horticultural industry.

The advisory group was comprised of informed leaders who are connected to the industry in proactive ways. They often attend regional and national conferences and events, pioneer new technologies and plants, and actively cultivate and maintain diverse professional relationships which keep them in touch with many industry needs and trends.

Over two days of moderated face-to-face sessions, preceded by several weeks of pre-conference preparation, our advisors shared their collective understanding of industry challenges, trends, and opportunities. As a result, HRI has a strategic vision and research priorities to tackle the challenges and capitalize on the trends and opportunities.



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## What is the Horticultural Research Institute (HRI)?

Horticultural Research Institute supports scientific research and students for the advancement of the horticultural industry. HRI was established by industry leaders on the premise that no one could better direct needed research to advance horticulture than the very people who work in it. We adhere to that same vision today: we fund and guide horticultural research efforts with direct input from industry professionals. It is the strong foundation upon which to build the industry.





## What Does Your Thriving Horticultural Business Look Like?

*In describing a future thriving horticultural industry, Research Roundtable Advisors identified the following attributes:*

**Compelling Value Propositions:** the ability to communicate the value of products and services in such a way that attracts customers and employees and increases profitability

**Leading Edge Technology and Systems:** access to production and distribution systems that increase efficiencies throughout the supply chain and that are consistent with progress in other industries

**Enhanced Customer Insights:** knowledge and understanding of the psychology, motivations, and behavior of horticulture customers that increases sales and business loyalty

**Connected Leaders and Advocates:** horticultural representation in influential leadership positions in academia, regulatory and legislative agencies, and policy-making circles that elevate industry needs. Ample and diverse leaders from all industry segments who are connected to one another.





*areas of future  
research focus*



# HRI Will Help Businesses Thrive by Investing in Four Key Areas

*By analyzing industry-defined attributes of success along with the strengths and challenges of the current state of the industry, Research Roundtable Advisors identified four areas of research focus that will best assist industry profitability. Over the next 5 - 7 years, HRI will prioritize research funding in the following areas to achieve the stated desired outcomes. Progress will be measured and evaluated by industry benchmarking surveys, impacts surveys, and outreach metrics.*

## Quantifying Plant Benefits

Research that quantifies and validates the benefits of plants on ecosystems, on human health, and on society creates value propositions that boost sales of horticultural products and services and increases interest in horticultural careers which can be measured by industry surveys.

## Creating Innovative Solutions

Research that creates or adapts biological, mechanical, and technological systems making practices and processes more efficient and productive assists horticultural businesses of all segments and sizes to increase profits which can be evaluated by research impact surveys.

## Gathering Consumer Insights

Research that evaluates consumer behavior, consumer preferences, and consumer trends empowers horticultural businesses to optimize products and services and leads to industry-wide profitability and growth which is measured by the National Green Industry Survey.

## Producing Practical & Actionable Solutions

Research that tackles ongoing and emergent industry challenges in production, resource management, or pest and disease management provides practical and actionable advice for horticultural businesses to improve sustainability and profitability which can be measured by outreach metrics and impact surveys.

# Snapshot: The Industry Today

*To describe horticulture's strengths and challenges, Research Roundtable Advisors synthesized data from interviews with numerous stakeholders representing all industry segments, moderated in-person sessions, and their own informed understanding of global trends, industry challenges, and opportunities.*

## Global Trends

Changes in consumer spending due to evolving socio-economic demographics and generational preferences

Increased consumer interest in personal and environmental health

Consumer desire for immediate access to products, services, and information

Labor challenges related to limited workforce availability, demand for higher wages, and the increasing diversity of needed skill sets

Constant challenge of managing Invasive pests while ensuring exchange of genetic material, propagules and liners

Unpredictable and volatile regulatory environment (local, state, and federal)

Increased public cynicism of established industry, university, and government

Increased use of technologies which impact efficiency, labor, and supply-chain movement

Climate uncertainty and instability which may impact grower success locally

## Strengths

Horticulture consists of an engaged community of professionals from all segments of environmental horticulture that actively collaborate amongst their peers, as well as with research communities, and other agricultural commodity groups.

Horticulture professionals routinely offer industry insight to state and federal funding agencies such as NIFA and USDA ARS in addition to the Horticultural Research Institute.

Horticulture stakeholders produce quality plants and strive to continually improve production systems and plant genetics, exercising innovation and creativity.

Horticulture stakeholders share creative solutions with their peers who have similar challenges, helping to further foster a sense of community.

Horticulture offers multiple, unique career paths featuring both independence and an ability to contribute to improvements in the health and well-being of people, communities, and the environment.

## Challenges

Horticulture fails to communicate the inherent value and benefits that plants provide for people, communities, and the environment.

Horticulture can better convey the keys to success with plants, such as providing information consumers need to plant and care for their products.

Horticultural production and distribution processes vary greatly over many business segments and, as a result, there is little standardization.

Horticultural segmentation can negatively impact collaboration among producers, slowing or limiting innovation.

Horticulture needs more leaders within industry businesses, industry associations, universities and colleges, schools, communities, and policy-making circles who are committed to promoting the industry's unique and gratifying career opportunities.



The background of the entire page is a close-up photograph of several large, multi-petaled flowers in shades of orange, peach, and light pink. The flowers are in various stages of bloom, with some showing more detail than others. The lighting is soft and natural, highlighting the texture of the petals.

# Taking Action

*Research Roundtable participants identified the following areas to be addressed by the Horticultural Research Institute's governing board for action.*

## **Affirm Research Priorities**

Formally adopt the four identified research priority areas to guide future HRI funding and leveraging decisions.

## **Reaffirm Commitment**

Continue support for projects that provide practical solutions for the horticultural industry that address needs related to production, distribution, resource management, and pest and disease management. Maintain connectivity with federal partners and programs like the Floriculture & Nursery Research Initiative.

## **Diversify Collaborations**

Seek and develop partnerships and collaborations with new agencies and potential funding/leveraging sources (for example, partnering with human health groups to achieve validation of human health benefits of plants).

## **Amplify Outreach**

Increase communication and outreach efforts to the industry and further position HRI as a clearinghouse of horticultural research through partnerships with national and regional associations and universities.



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HRI extends gratitude to the many industry professionals who participated in the Research Roundtable during the event or in the months of prework and data gathering in advance of the event. Special recognition to the planning team, the report team, and event attendees.

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*\*Sought input from and represented needs of retail, interior plantscape, and landscape segments*

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