2024/2025 IR-4 Environmental Horticulture Survey

Thank you for your participation in this survey.

The IR-4 Project's Environmental Horticulture Program helps provide safe and effective pest management solutions for greenhouse, nursery, landscape, Christmas tree and forestry producers. Every other year, we prioritize the next two-year research plan at our Environmental Horticulture Workshop. We invite you to help us focus our research by answering a few questions about the diseases, insects, and weeds which impact your business.

1. Please check one affiliation:

☐ Grower (Greenhouse and/or Nursery)
☐ Landscape Care Professional
☐ Interiorscaper
☐ University or USDA-ARS Researcher
☐ Cooperative Extension
☐ Federal, State, or Local Government
☐ Allied Industry Member

2. Please check all types of operations and pest management strategies relevant to your business:

☐ Greenhouse
☐ Nursery – Container
☐ Nursery – Field-grown
☐ Landscape
☐ Interiorscape
☐ Christmas Tree Farm
☐ Sod Farm
☐ Public Garden
☐ Garden Center

☐ Biological Control
☐ Chemical Control
☐ IPM
☐ Organic
☐ Standard Weekly/Monthly Program
☐ Spray Program based on Thresholds

3. Please check all plant materials relevant to your business:

☐ Bedding Plants
☐ Cut Flowers
☐ Christmas Trees
☐ Foliage Plants

☐ Herbaceous Perennials
☐ Ornamental Grasses
☐ Palms
☐ Seasonal Potted Plants (ie Poinsettia)

☐ Shrubs
☐ Trees
☐ Turf

4. Consider the plant materials you grow or maintain.

Then consider situations over the last year where you had *difficulty managing* diseases, pests, or weeds.

For all three areas, list the top three situations where your product arsenal was **limited**.

Be as specific as possible; for example, "Japanese beetle on rose" or "Rhizoctonia wilt on impatiens seedlings".

Then put a '√' or 'X' for each type of plant material where this issue occurs in your operation.

Type of Plant Materials

	Bedding Plants	Cut Flowers	Christmas Trees	Foliage Plants	Herba. Perennials	Ornamental Grasses	Palms	Seasonal Potted	Shrubs	Trees	Turf
Diseases (including bacteria, fungi, nematodes) with few to no available tools											
1. _____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2. _____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3. _____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Insects and/or mites with few to no available tools											
1. _____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2. _____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3. _____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Weeds with few to no available tools											
1. _____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2. _____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3. _____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

5. Think about the crops you grow. Which three crops need more crop safety (phytotoxicity) information?

1._____   2._____   3._____

6. Please comment about other needs not covered above:_____

_____

_____

_____

7. Please check one of the following:

☐ I need crop safety (phytotoxicity) data more than efficacy data

☐ I need efficacy data more than crop safety data

☐ I need crop safety data and efficacy data equally

8. Protecting beneficial organisms including pollinators is a key crop production strategy. Please check all methods below that you currently use:

☐ Apply crop protection tools when beneficial organisms are not present.

☐ Grow crops without pollinator attractive flowers.

☐ Apply only biopesticides.

☐ Scout for pest and disease hot spots and apply to only those areas.

☐ Apply best tool possible for crop situation knowing that some beneficial organisms may be harmed.

☐ Apply foliar tools when they offer greater safety than systemic tools.

☐ Grow flowering plants in greenhouses.

☐ Apply biorational tools.

☐ Use products without pollinator toxicity.

☐ Apply the optimal rate to manage pests or diseases without harming pollinators and other beneficial organisms.

☐ Apply systemic tools when they offer greater safety than foliar tools.

☐ Other_____

9. Please enter the state where you work: _____

10. What is today's date? _____

(Optional) Please fill out your name and address below:

Name: _____

Affiliation: _____

Address: _____

City _____ State ____ Zip _____

Phone Number _____

Email Address: _____

Please mail completed survey to:

IR-4 Project
NC State University
1730 Varsity Drive
Venture IV, Suite 210
Raleigh, NC 27606