



# EXTENSION IMPACT

## Reducing Harmful Chemicals in Gardens and Fields

The overuse of horticulture chemicals creates significant environmental contamination and pollution. For example, homeowners can apply up to 10 times the amount of pesticides per acre compared to farmers. Although green industry professionals who apply horticulture chemicals are regulated, they may use restricted-use pesticides that have the potential to cause harm to the environment and to people who are nearby. These risks can be mitigated through teaching integrated pest management techniques that can reduce environmental contamination and lead to less fertilizer and pesticide use.

To reduce environmental contamination and pollution, Extension provides horticulture education and answers questions from residents and horticulture professionals through its plant diagnostics services. Extension's plant diagnostics services follow an integrated pest management approach, which encourages using pesticides and fertilizers only when needed and prioritizing the least toxic approaches. Wisconsinites received environmentally friendly advice based on sending Extension samples of insects and plant disease, which were tested in diagnostic labs. In 2021, an estimated 20,000 Wisconsinites obtained individualized plant care solutions by getting their gardening questions answered through a county office, through the Extension statewide diagnostics inquiry system, or through a diagnostic lab. Over 80% of participants reported that they adopted a change to their landscape or garden practices based on the Extension's advice.

To reduce environmental contamination and pollution, Extension developed and carried out a variety of additional educational initiatives in 2021: self-paced online courses, webinars, in-person classroom teaching, educational walks, in-field demonstrations, and tours in educational gardens. Through Extension's local and online support, home gardeners and green industry professionals learned the proper use of pesticides and weed management techniques.

*Extension helps home gardeners and green industry professionals limit the use of pesticides and fertilizers to reduce environmental pollution.*

Additionally, Extension's online Foundations in Horticulture course taught over 500 home gardeners research-based methods in growing plants and managing pests. This self-paced online course included embedded video presentations and interactive learning activities and live question-and-answer webinars with subject matter experts. Nearly 90% of participants reported changing how they gardened due to what they learned. Specifically, gardeners indicated a change in how they amended and fertilized their soil by getting soil fertility tests first. Gardeners also shared that they were more intentional and careful with chemicals to ensure proper usage applying no more than is needed.

in 2021



**34,000+**  
participants in horticulture outreach activities



**20,000+**  
participants in general plant diagnostics and horticulture inquiries answered by County Educators and Master Gardener Volunteers (estimated)



The Horticulture program is part of Extension's Agriculture Institute. Learn more by visiting [hort.extension.wisc.edu](http://hort.extension.wisc.edu).



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