

Advancing Gardening Skills in Broadwater County

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Introduction & Need

Studies indicate a growing interest in gardening, particularly among millennials. This is a trend that began before the COVID-19 pandemic and intensified during it. This national pattern aligns with the increased demand for gardening classes and educational outreach observed by Montana State University Extension in Broadwater County.

In early 2024, MSU Extension implemented changes to the Montana Master Gardener Program, eliminating its previous tiered level system. As a result, plans for a Level 2 Master Gardener Class were canceled. Pivoting quickly, MSU Extension Agent, Allison Kosto, developed an Advanced Gardening Course to address the county's growing need for advanced gardening education, which could no longer be fulfilled through the revised Master Gardener program.



Methods

The Advanced Gardening Course was conducted in two parts. The first part consisted of a four-week series held in the spring. This class was open to community members with prior gardening experience and Master Gardeners who had completed the core program (formerly Level 1). Course topics were identified through a survey of Master Gardeners and included native plants, season extension methods, plant propagation, and advanced plant growth. Instruction was delivered through a combination of classroom lectures and hands-on activities.

The second part of the course took place during the summer at a home garden, focusing on advanced garden and tree integrated pest management, with an emphasis on pest identification. The session began with a Pest Scavenger Hunt, where participants matched listed pests or pest damage to numbered flags placed throughout the yard. After completing this activity independently, Extension Agent Allison Kosto led a guided tour to demonstrate proper pest identification and discuss management strategies. Highlights included successfully trapping a pocket gopher and conducting a demonstration of systemic pesticide application for aphid management in fruit trees.

Results

Due to the hands-on nature of the program, participation was capped at 25 participants to ensure an engaging and interactive learning experience. The course reached full capacity quickly, reflecting high community interest. A total of ten hours of instructional time was provided across both the spring and summer sessions.

The program showcased the following topics:

- Plant Propagation—Allison Kosto, Extension Agent/Associate Professor, Montana State University Extension
- Advanced Plant Growth—Dria Walker, Land Escapes Nursery & Level 3 Master Gardener
- Native Plants—Heather Nack-Culbreth, Level 2 Master Gardener
- Season Extension Methods—Abi Saeed, Horticulture Specialist, Montana State University Extension
- Advanced Garden & Tree IPM—Allison Kosto, Extension Agent/Associate Professor, Montana State University Extension

Outcomes & Impacts

Master Gardeners who participated in the program were able to get up to 10 hours of continuing education. Workshop participants were asked to evaluate the spring classes and provide feedback regarding knowledge gain and intent to change behaviors as a result of the program. The following results were reported:

Knowledge Gained:

As a result of participation in this program:

- 100% of participants Strongly Agreed (63.6%) or Somewhat Agreed (36.4%) that their knowledge of general gardening had increased.
- 100% of participants felt that the content in plant propagation was Highly Useful (60%) or Useful (40%).
- 100% of participants felt that the content in advanced plant growth was Highly Useful (40%) or Useful (60%).
- 90.3% of participants felt that the content in season extension methods was Highly Useful (81.2%) or Useful (9.1%).
- 54.6% of participants felt that the content in native plants was Highly Useful (36.4%) or Useful (18.2%).

Participants in the summer IPM program gained hands-on experience with pest identification, control and management



thresholds. This resulted in a large increase in knowledge for class participants. For many people, the first reaction to a pest is that it needs to be controlled when that may not always be the case. One participant said, "It's nice to know that I don't have to control everything."

Proper pest identification is key to successfully controlling pests. During the class, the Extension Agent successfully trapped a pocket gopher and was able to show damage and dirt mounds caused by pocket gophers. No one in the class had ever seen an actual pocket gopher before. One person in the class said, "I always thought I had voles. Now I realize I actually have pocket gophers."



Behavior Change:

Additionally, 91.7% of workshop participants indicated the following intended behavior changes as a result of participating in the spring classes.

Planned changes included implementing plant propagation techniques, adopting season extension methods, incorporating more native plants into landscapes, and improving general gardening skills such as seed selection and seed-starting techniques.

A participant in the summer IPM Tour shared, "I have NEVER seen that many pests in real life. It was a good exercise to go around and see what our sleuthing skills came up with, but then go a second time and have you show us what we missed or should have been looking for. I have a whole new appreciation for diagnosing pests and much more foundation on where to start looking. Plus the pesticide application demo made me realize I don't think nearly enough about options for treating issues."

Implications for Future Programming

This program reaffirmed the strong community interest in advanced gardening workshops beyond the standard Master Gardener course, which also remains popular. The hands-on instructional approach proved highly effective and should be replicated in future programs. Providing real-life examples, particularly for pest identification and management, had a greater impact than traditional classroom presentations or screen-based learning. Moving forward, specific topics and community needs will continue to be assessed to ensure relevant and engaging programming.