GROUNDED

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Grant-Adams Master Gardeners

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Master Gardeners – 50 Years and Counting

The Master Gardener (MG) program began in 1973 as a grassroots movement at Washington State University (WSU) and has since expanded across the United States and into Canada and South Korea. Its mission has been to engage university-trained volunteers to empower and sustain diverse communities with relevant, unbiased, research-based horticulture and environmental stewardship education. MG volunteers teach best practices for creating sustainable landscapes that enhance and protect our natural resources and improve the health and well-being of individuals and communities. Next year, the Master Gardener Program will celebrate its 50th anniversary.

Before the introduction of the MG program, WSU, a land-grant institution, used its horticulture faculty at county extension offices to promote horticultural practices dealing exclusively with crop production. With rapid growth in cities and an increasingly popular interest in gardening, WSU Extension began to develop programs emphasizing urban horticulture.

In the early 1970s, Extension agents Bill Scheer (Pierce County) and David Gibby (King County) began to address urban and commercial horticultural issues. Since the public demand for information was overwhelming, they jointly developed a new way to deliver gardening support to the public. Their idea was to create a "teach the teachers" program for volunteers who would receive university education on the science behind gardening and then offer that knowledge free to the general public. They knew they were onto something when advertisements for their first class attracted more than 600 applicants. Two hundred applicants were accepted into that first training session, and the Master Gardener program was born.

The MG concept addressed a need beyond King and Pierce Counties. By the end of 1973, David Gibby left WSU; and Sharon Collman, who replaced him, helped to solidify a strong foundation for the program within Washington State and then promoted the expansion of the program into other interested land-grant universities. Today, the United States has over 85,000 certified Master Gardeners, Washington State has over 4,000, and Grant-Adams Counties has 20, with five interns currently in training.

To celebrate its first 50 years, the state MG program is planning several activities in 2023:

- A kickoff event at the Puyallup Research and Extension Center on April 8, 2023.
- An event at the Irrigation Agriculture Research and Extension Center in Prosser on May 20, 2023.
- Presentations at the Tree Fruit Research and Extension Center in Wenatchee on June 20, 2023.
- Presentations at the Northwestern Washington Research and Extension Center in Mount Vernon on July 13, 2023.
- WSU Master Gardener Advanced Education Conference in Tacoma, WA on September 27-30, 2023.

Interns Excel at New MG Training

Five WSU Master Gardener interns began training in August to become certified WSU Grant-Adams Master Gardeners. The training is intensive, offered about every two years in Grant-Adams Counties, and requires that the interns successfully complete online WSU classes on plant biology and identification, pathology, and problem diagnosis; soils and plant nutrition, woody and herbaceous landscape plants; fruit and vegetable crops, sustainable gardening, entomology, integrated pest management and pesticides; vertebrate pests; weed management; houseplants; and greenhouse management.

MG trainees (left to right) Mary Love, Deb Russell, Maria Reimers, Sharon Hastings, and Bobbie Bodenman. Photo credit: D. Escure

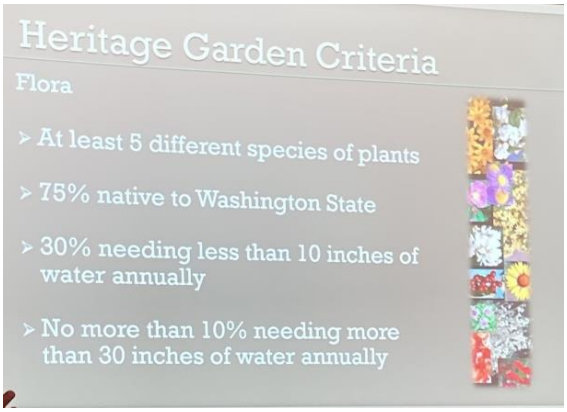
MG training is sanctioned by Washington State University and classes are organized by local MG Program Coordinators. Grant-Adams 2022 MG classes and field tours were held August through November.

In addition to the interns completing WSU's online course, they have attended in-person classes every few weekends from September through November.

Speakers and topics at classroom and field sessions featured:

- Heather Wendt, Heritage Gardens Coordinator for Benton and Franklin Conservation Districts, and Dinah Rouleau, Columbia Basin Conservation District Project Manager: Landscaping with Native Plants and Heritage Gardens
- Karen Lewis, WSU Extension Director of Agriculture and Natural Resources Program: Tree Fruit, with a tour of the WSU organic apple orchards
- Mike Bush, Pest Biologist for WSDA Plant Protection Division: Invasive Species, Exotics, and Beneficial Pests and Controls
- Kole Tonnemaker: Sustainable Agricultural Methods and Organic Production with a tour of his organic farm
- Andy McGuire, Agricultural Systems Educator and Director at WSU Grant County Extension: Soils and Soil Fertility
- Katie Doonan, Extension Coordinator, Center for Sustaining Agriculture and Natural Resources: A Gardening Response to Climate Change

Heather Wendt, Heritage Gardens Coordinator, Benton-Franklin Conservation District, presented criteria about establishing native plant gardens in the Columbia Basin Photo credit: Mark Amara



Dinah Rouleau, Columbia Basin Conservation District Project Manager, discussed criteria to qualify property as a Heritage Garden. Photo credit: D. Escure

Program coordinators Mark Amara and Duane Pitts will hold the last class in the series for the interns in late November to discuss what's next in the training process once the interns complete their coursework. MG coordinators will describe a variety of volunteer activities to help the interns complete at least 50 hours of training next year, working alongside a certified MG to finish their certification process.

To maintain their certification, all MGs must volunteer a minimum of 35 hours per year of pre-approved classes and activities involving outreach and community support, such as:

- Working at plant clinics provided for the public
- Maintaining any of the three area MG demonstration gardens.
- Making presentations to the public
- Supporting the Ephrata Seed Library
- Writing articles for the quarterly MG newsletter Grounded
- Helping organize and staff the annual Eco-Symposium, a half-day seminar held jointly with the Columbia Basin Conservation District, which is provided free to the public to learn about sustainable gardening practices.

Andy McGuire, WSU Grant County Extension Director and Agricultural Systems Agronomist, gave a comprehensive talk about soils, soil fertility, fertilizers and cover crops. Photo Credit: Mark Amara

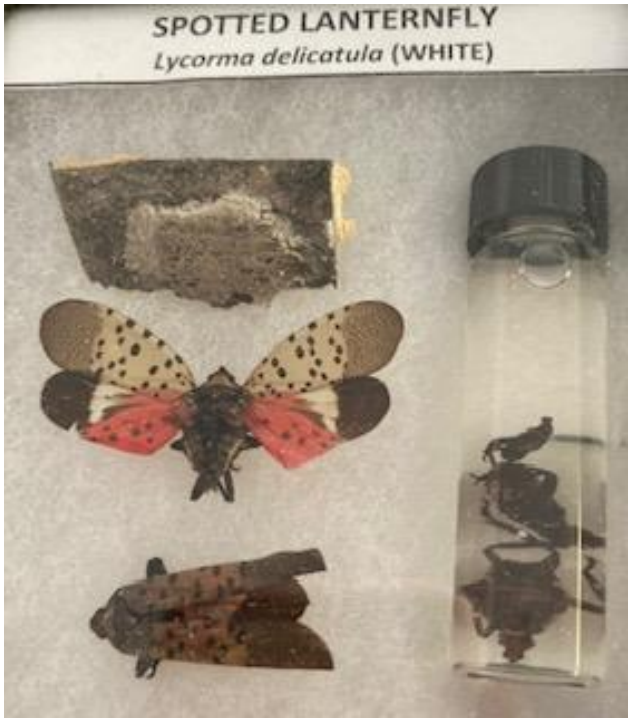
Karen Lewis at the WSU organic apple orchard discussing Cosmic Crisp plantings. Photo credit: D. Escure

Cosmic Crisp apples were abundant in late September and close to picking. Photo credit: D. Escure

Kole Tonnemaker, owner of Tonnemaker Hill Farm, gave the Master Gardeners a tour of his organic fruit and vegetable farm in the Frenchman Hills of Grant County and discussed sustainable agricultural methods. Photo credit: Mark Amara

Kole Tonnemaker discussed the benefits of black plastic, drip irrigation and furrow planting of vegetables in his fields. Photo credit: D. Escure

Mike Bush, WSDA Entomologist, presented material on invasive and beneficial pests. Photo credit: Mark Amara



An invasive pest not yet found in the Columbia Basin but has been found in other parts of Washington State. Photo credit: D. Escure

Want Berries? Prune! . . . *By Duane Pitts*

The best way to help berry plants produce more berries is to prune them. That's right. Prune them. I know that sounds counter-intuitive, but pruning does that. Last winter and early spring of this year, I pruned my blackberries, grapes, currants, gooseberries, quince, blueberries, and raspberries. I wrote an article about them in the March 2021 MG newsletter *Grounded* (pp. 3-5, found on WSU's website ga.mgvolunteers@wsu.edu). This article updates three more berry plants: two that I currently have growing and a third arriving in spring 2023, just in time for planting.

Strawberries. Photo credit: Pixabay.com

Strawberries are everyone's most popular berry. These red delicious berries, ever-bearing or otherwise, need to be pruned to produce more. Actually, the proper term used in pruning strawberries is renovation. I like that! Make them "new again! "

To renovate them, take hedge clippers or loppers to cut back the tops of the plants. I used a weed-whacker during the last week of October 2022 to cut the tops off the berry plants, which was easier on my arthritic hands and knees. I made sure not to cut into or damage the crowns on the plants. From spring onward, I will be rewarded with a plentiful harvest from the early-season, mid-season, late-season, and every-bearing strawberry plants. Yummy!

Aronia (Black Chokecherries). Photo credit: Pixabay.com

I have one *aronia* plant (aka black chokecherry or *Aronia melanocarpa*). It arrived, bare root and all, about 3 weeks ago. I just trimmed one broken stem above a bud. Until the plant is 8 years old, I am off the hook in pruning. During these 8 years, I need only to remove dead branches back to the crown. Thereafter, the "hard" work begins in mid-winter. In year 8, the *Aronia* can be pruned to a height of 3 feet once every 4-5 years thereafter! That's the "hard" work. I can handle that. Easy peasy!

Now, the last berry is the honeyberry (*Lonicera caerulea*). I have two of them scheduled to arrive in Spring 2023. I will be prepared by then to prune as required. Besides being winter-hardy and soil-tolerant, pruning is easier than with the *Aronia*. After they are 3 years old, all I need to do is to thin any dense growth spots in the plant. That's it! Currants take a bit more work, so I know that I can prune honeyberry.

Yes, Honeyberries are this big! Photo credit: Pixabay.com

In fact, I might – just might – reduce my berry patch to these 3 berries. Then when I am 76 or 79 or 83, I have easy work in pruning! And I don't need to kneel or slug away through thorns or whatnot.

Wow! Who could have guessed that pruning would be so easy.

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Soil Your Undies Takes on New Meaning

. . . By Mark Amara

This past spring and summer, gardeners of all ages were encouraged to take the Soil Your Undies Challenge. The challenge consisted of "planting" a new clean pair of men's cotton underwear in the soil to evaluate soil health. Carolyn Russo, WSU Grant County 4-H Coordinator, encouraged children from the WSU 4-H program to participate, and there were also entries from 4-H-ers in Quincy and Moses Lake as well as adults in the community, including those from the WSU SNAP-Ed program.

The goal of the challenge was to get people to inspect their soil and see evidence of major biological activity, which indicates healthy soil. Most of us are unaware that billions of microbes in the soil feed on organic matter, including cotton in underwear. Since bacterial activity can occur quickly, the underwear experiment is a wonderful way of showing how active or inactive a soil is.

Undies were buried three inches in the ground for at least two months during spring and summer when soil microbes are most active. Most of the buried materials were placed in gardens, although one was put under a trampoline in the lawn and another was planted in a fallow area. Some spots were irrigated, while others were not. After two months, the soil where underwear had been planted was dug up to see how much deterioration there was in the cotton. Results were astonishing. Most, if not all, of the samples were so deteriorated or eaten away that only the waistband and seams remained. The work of the microbes indicated that most soils in this experiment were in good shape and quite healthy. The results were displayed at the Grant County Fair in mid-August 2022.

The 4-H program plans to reintroduce the concept as an exercise again in 2023, to entice others to take the challenge. However, the challenge isn't reserved exclusively for children; all ages are encouraged to participate! The best time to test the soil for this is in spring or summer when soil bacteria is most active. In the fall and winter, soil is too cold for much microbiological activity, so it is not recommended to try it until next spring. Participants for this experiment can pick up a new pair of cotton underwear from the Grant County Extension Office at 1525 E Wheeler Road, Moses Lake.

All undies were buried for approximately two months and then dug up. The results were on display at the Grant County Fair in August 2022. Photo credit: Mark Amara

One Potato, Two Potato: Update on Straw Bale Growing . . . *by Duane Pitts*

In 2020, I grew my first potatoes (fingerlings) in two straw bales. I was pleased with the results. So, following Karsten's prep schedule (see References below), I planted potatoes last spring 2022 in one straw bale in the berry patch. I also ended up with room to plant two yam pieces.

Karsten's prep schedule recommendations:

- Days 1, 3, and 5 – I added ½ cup of 10-10-10 fertilizer to the bale and watered thoroughly.
- Days 2, 4, and 6 – I skipped the fertilizer but thoroughly watered the bale.
- Days 7, 8, and 9 – I added ¼ cup of 10-10-10 fertilizer to the bale and watered to saturation
- Day 10 – I added 1 cup of 10-10-10 fertilizer to the bale and saturated it with water.
- Day 11 – I let the bale rest to decompose and heat up.
- Day 12 – I anchored a soaker hose atop the bale and dug down into the bale top about 6-9 inches and planted 6 baking potato hunks and two yam chunks with sprouting eyes. Digging into the bale top, I could feel the heat of the straw decomposing! The spring nights were cold, but my potatoes and yams were warm and growing! I could almost taste them then.

During this past summer's blistering heat, I watered the bale twice a day: once in the morning and once later in the afternoon. The potatoes thrived, and the yams took their sweet time. Finally, the yams took off in the hot August heat and spread over the compost pile and the herb garden and tried to creep into the daisies and raspberries.

In the third week of October, I harvested the yams first. The bale had shrunk to about eight inches high and was rotten through and through. Terrific compost and just what was supposed to happen. The yams were HUGE! Much bigger than the original yam. I was surprised and ecstatic and could hardly wait to see the bakers.

Huge yam (12") and knobby potato (5")
Photo credit: Duane Pitts

Yams measured about 10+ inches long
Photo credit: Duane Pitts

As I dug into the baking potatoes, I saw small knobby, deformed potatoes, but nothing like the original baking potato. Most were tiny versions or deformed tiny potatoes. The biggest baking potato is the length of a regular baking potato, but it has four knobs. Upright, it looks like a telecommunication tower. They would cook. However, were they worth the effort? I mean, one or two bites and the tater would be gone!

I take what nature produces and enjoy anyway. I can't return to sender. I could dump the tiny potatoes in the compost heap, but that would be a waste of food. Plus, the compost pile would produce potatoes next year – more knobby ones, of course. I will count my potatoes – one potato, two potato, three potato – and count myself lucky. Such is the outcome of gardening.

Original seed potato. Photo credit: Duane Pitts

Knobby, deformed baking potatoes. Photo credit: Duane Pitts

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Editor's note: ***The following information was paraphrased and modified from the history of the Grant-Adams Master Gardener Program. Assembled and written by WSU Grant-Adams Master Gardener, Barbara Guilland.***

Master Gardeners Reign in Grant-Adams Counties

By 1982 Ray Hunter, the Grant County Cooperative Extension Agent, tracked as many as 80 calls from gardeners on the two days a week designated for taking calls as well as visits from home gardeners who dropped into the extension office in the Grant County Courthouse in Ephrata. He started formal Master Gardener training with four people who finished 50 hours of classes, labs, field trips and then completed 50 hours of public outreach to earn Master Gardener certificates (which is basically the same regimen required of new master gardener interns today!). The popularity of the program soon became clear. By the third year, the number of gardeners who had become certified Master Gardeners had risen to thirty-two.

After Ray Hunter retired, Elvin Culp and Robert Gillespie supervised the volunteers until Colleen Irwin, a gardener from Warden who was certified as a MG in 1983, was hired as the coordinator for the program to manage the volunteers and provide assistance to Grant and the irrigated portion of Adams County. MG trainers included Hunter, who retired from WSU Extension in 1986, and Karen Lewis, who replaced him as Tree Fruit Specialist in the Grant-Adams County Extension Office as well as extension agents from other counties. After twenty-two years as Program Coordinator, Colleen Irwin retired in 2005. In 2009, a rose garden at the Grant County Courthouse became a memorial and reminder of her service to the many Master Gardeners and community members who had been educated through the WSU Master Gardener Program in Grant and Adams Counties.

Karen Lewis, a long-time supporter of the MG program, is still asked to teach classes for the Master Gardener Program, although her responsibilities to the extension in her specialty have now gone well beyond Grant County. In 2020, Lewis became the new director of Washington State University Extension's Agriculture and Natural Resources (ANR) Program Unit.

Funding to support the MG program was gradually reduced. In 2003, the Master Gardener Foundation of Grant-Adams Counties took over responsibility for fund-raising from the Master Gardener Program Coordinator and became the major source of support for program projects. George Roper from Othello was elected first Master Gardener Foundation of Grant-Adams Counties president. In 2004, Pat McAfee, Pat Lamphere, George Roper, Mary Shinn, and Mona Kaiser collaborated to write bylaws for a Master Gardener Foundation of Grant Adams Counties and applied for incorporation and 501(c)3 non-profit organization designation. Its mission as a nonprofit organization was to give financial support to the WSU Master Gardener Program in Grant-Adams Counties. Its major fundraiser was (and continues to be) an annual plant sale. Serious cuts in state and county budgets to county extension offices were looming, which would affect the program deeply.

In 2006, Erik Lampi was hired by Christine Price, Grant-Adams Extension Director, as the WSU Grant-Adams Master Gardener Program Coordinator but within four years, the Grant-Adams Extension budget could no longer cover the cost of even a part-time Program Coordinator. During Lampi's four years from 2006-2010, he initiated more community projects, which included creating demonstration gardens and helping start community gardens at town sites in Grant and Adams Counties.

In 2010, when the budget no longer supported a full-time program coordinator and Lampi had left the program, two Master Gardeners, Barbara Guilland and Kristine Nesse, volunteered to temporarily take on the coordinator responsibilities as well as to continue to serve as officers of the Master Gardener Foundation. They were volunteer co-coordinators for the 2011-2013 seasons. Later that year, Christine Price, the Grant-Adams County Extension Director, asked Jeannie Kiehn to use 10% of her paid time to fill some of the needs of the program.

In 2015, the WSU Grant-Adams County Extension office moved from the Grant County Courthouse in Ephrata to the Grant County District Court building on Wheeler Road in Moses Lake. At the same time, Christine Price, long-time Director of the Grant-Adams Extension, retired, and Andrew McGuire became the Extension Director. An attempt was made to return a Master Gardener clinic to the extension office, but not enough active Master Gardener volunteers were available to staff a permanent plant clinic at the office. The online Master Gardener plant clinic became more important. Answering questions over the internet and by phone gave Master Gardeners time to research and respond in a timely manner to clients' gardening questions. It did not require their presence in the extension office.

In 2018, budgets were trimmed again in the WSU extension office, and the Master Gardener Program lost the assistance of Jeannie Kiehn. The program was in danger of ending when both WSU funding and support from Grant County was dropped to zero, but again veteran Master Gardeners Mark Amara, Duane Pitts, Diane Escure, and Terry Rice made a case for the value of the Master Gardener Program in Grant and Adams Counties. They rallied to save the program by assuming all the duties of program coordinator with oversight and support staff from the extension office and the full support of the Master Gardener Foundation of Grant-Adams Counties. Though Terry dropped out after the first year, Duane Pitts assumed the role as co-coordinator with Diane and Mark, who have maintained and expanded the program.

Master Gardener-Supported Programs are Diverse and Wide Ranging

Many Master Gardener-supported programs have been initiated over the years. Some have expanded, while others have evolved or disappeared.

Demonstration gardens at the Moses Lake Public Library, a joint effort between the Master Gardeners of Grant-Adams Counties and the City of Moses Lake, began in 2006. The gardens there consist of a native plant garden and a drought-tolerant garden. MG volunteers continue to maintain both seasonally with help from community volunteers. A Master Gardener memorial bench and special plantings are additional features. A leaflet describing plants in the demonstration gardens is available at the public library.

Barbara Guilland (left) and Cynthia Calbick have led efforts to maintain and expand the ML gardens. Guilland took over when Calbick left the program in 2022. Photo credits: left picture – Unidentified; 2013 Master Gardener, right picture - Mark Amara

Also in 2006, a cooperative agreement involving the City of Soap Lake, the Soap Lake Garden Club, and the Master Gardeners of Grant-Adams Counties was initiated to establish a Master Gardener demonstration garden in Soap Lake, with help through a state grant. In Quincy, a small native-plant garden was planted at the Reiman-Simmons House, and a pollinator garden was established at the Ephrata Community Garden (2013), although both were either turned back to their respective towns, as was the case in Quincy, or dismantled as happened in Ephrata. Both gardens were sources of pride while they were in operation. Landscaping at the Adams County Pet Rescue facility in 2014 was a big effort that enlisted many MGs to help plant the grounds around the new shelter.

Speaker Kurt Braunwart discussed cover crops at the 2019 symposium. Photo credit: Mark Amara

Using grants, MGs taught teachers and students at George Elementary School gardening principles and planted vegetables in the school garden. Other grants supported the establishment of the Othello demo garden and the Seed Library at the Ephrata Public Library. With the cooperation of the Grant County Housing Authority, a no-till community vegetable garden was set up at Doolittle Park in Moses Lake as a teaching area for Cub Scout and Girl Scout troops and as a giving garden for housing authority residents. Extra produce produced there was donated to the Moses Lake Food Bank.

2015, the WSU Grant-Adams MGs started the Columbia Basin Eco-Gardening Symposium as a joint effort with the Columbia Basin Conservation District as a free annual event, except for the past two COVID years when the event was canceled. The 6th annual event is being planned for April 2023, featuring resource exhibitors and speakers.

Master Gardener plant clinics are still ongoing, but because of a reduced MG membership, in-office plant clinics have shifted to online question and answer clinics for gardeners. Master Gardeners are meeting face to face at the Moses Lake and Quincy farmers markets and at fairs such as the Grant County Fair, the Othello Fair, and the Othello Sandhill Crane Festival.

Samples brought to the Grant County Extension Office are still received and analyzed on site when requests are made to diagnose issues or identify pests. Master Gardeners also serve as judges for fruits and vegetables at the Grant County Fair each year in mid-August where a plant clinic is also held.

George Roper staffs the MG plant clinic table annually at the Othello Fair. Photo credit: Mark Amara

BFI Native Seeds Co-owner, Matt Benson, led a tour of the grass, shrub, and flower operation north of Warden, May 2022. Photo credit: Mark Amara

Tours and educational events provide learning opportunities for master gardeners and the public.

A quarterly MG newsletter has been published for the last 10 years to help educate gardeners throughout the community and continues to be a way to promote the program. It is sent to interested people and is available on the WSU Master Gardener website. Additionally, periodic articles are prepared for up to five area newspapers and articles are occasionally provided to the state Master Gardener publication.

Master Gardeners have a speaker bureau and offer classes on request on a variety of topics; for example, basic gardening, water conservation, or sustainable gardening practices.

Master Gardeners used a greenhouse at BBCC until 2020 to grow plants for their primary fund-raising sale. Beginning this year, a larger greenhouse located at the Quincy School District Middle School will be used to propagate and grow plants for the annual MG fundraiser, held usually at the first Moses Lake Farmers Market in May. The efforts of Grant-Adams Master Gardeners continue. New Master Gardener training will once again be offered in 2024.