GROUNDED

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Grant-Adams Master Gardeners

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Grant-Adams Counties Master Gardeners, 1525 E. Wheeler Road, Moses Lake, WA 98837
http://county.wsu.edu/grant-adams/Pages/default.aspx · ga.mgvolunteers@wsu.edu

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WSU Extension Welcomes New Master Gardeners into the Grant-Adams Counties Program

Bobbie Bodenman, Sharon Hastings, Mary Love, Maria Reimers, and Deborah Russell are our newest additions to the Grant-Adams Master Gardener (MG) program as certified Master Gardeners. They joined as trainees in the fall of 2022 and began the process of attaining certified Master Gardener status during the past year and a half. They completed four months of intensive horticultural training provided by Washington State University through self-paced online education classes and also attended local in-person field trips and classroom instruction from September to December 2022. These activities amounted to ~60 hours of science-based education during the training.

Coursework topics included growing landscape plants, vegetables, fruits, and lawns, along with weed management; plant identification, diseases, and diagnoses; basic botany; integrated pest management; soil science; and best fire-wise landscape practices. The trainees completed chapter quizzes throughout the online class instruction and took a final exam on all their class material by December 2022, scoring at least 80% on these tests. In 2023, each of them completed another requirement of providing a minimum of 50 hours of volunteer service in Grant-Adams Counties to attain certified Master Gardener status.

In working closely with Grant-Adams MG mentors this year, our trainees gained a wide variety of gardening knowledge and experience and provided valued community service in Grant-Adams Counties.

Volunteer experience included:

- Researching WSU plant clinic questions posed by the public, both online and in person.
- Maintaining MG drought-tolerant and native plant demonstration gardens in Othello and Moses Lake.
- Participating in the planning of and working at the annual Eco-Gardening Symposium held in April to educate the public on sustainable gardening practices.
- Working at the MG greenhouse in Quincy to grow plants from seed for the MG annual plant sale at the Moses Lake Farmers Market, as well as participating at the event, advising shoppers on plant selection, hardening off, and care of the fruit, vegetables, and flowers that they purchased.

- Providing invaluable support at plant clinics held annually at the Grant County Fair in August and the Othello Fair by answering gardeners' questions and at the Ephrata Library by developing and making an evening presentation to the public on how to save some of their nonhybrid seeds from their gardens to donate to the Ephrata Seed Library.

Master Gardener
Bobbie Bodenman

Master Gardener
Sharon Hastings

Master Gardener
Mary Love

Master Gardener
Maria Reimers

Master Gardener
Deborah Russell

As newly certified Master Gardeners, Bobbie, Sharon, Mary, Maria, and Deborah will continue in 2024 and beyond to enrich our various Grant-Adams MG programs. They join the dedicated cadre of Master Gardeners serving our communities who educate the public about sustainable gardening practices.

New Master Gardener Training Classes Offered in Fall 2024 . . . *By Mark Amara*

Grant-Adams Master Gardening training is offered in the fall every two years. The next scheduled training program for anyone interested in becoming a certified WSU Grant-Adams Master Gardener volunteer starts in September 2024. Further information on training dates and times will be announced by summer of 2024.

Requirements for Master Gardener candidates:

- Have a strong volunteer ethic.
- Commit to becoming a volunteer home gardening educator for the Grant-Adams WSU Extension.
- Pass federal background screening.
- Complete WSU on-line education classes between Sept-December 2024 and 50 volunteer hours in 2025.
- Abide by WSU Master Gardener regulations.
- Be willing to take additional required training annually and participate in MG volunteer activities.

Background. The focus of the Master Gardener Program statewide has evolved from staffing plant clinics and answering specific gardening questions to include outreach on broader priorities including clean water, water conservation, wildfire preparedness, local food, pollinators, climate change, plant diversity, soil health, and nearby nature. Certified Master Gardeners serve as volunteer home gardening educators in these areas for the WSU Extension program in Grant and Adams Counties. Through the MG program, they continue to expand their horticultural knowledge on all aspects of gardening by taking annual classes based on current scientific research and by sharing that knowledge with the public. They work with community members of all ages to solve gardening challenges.

Responsibilities. Primary MG responsibilities include teaching best sustainable gardening practices, serving as a resource for horticulture and gardening projects, staffing exhibits, holding plant clinics to answer gardening questions for the public, and working in MG plant demonstration gardens and at an MG greenhouse. Volunteers frequently interact with the public, WSU Grant Extension staff, and other volunteers to plan and present horticultural information. For example, Master Gardeners contribute articles for its quarterly newsletter *Grounded*, which is published online, and for other news sources. The MG Program co-sponsors a free annual gardening symposium in April, open to the public, with the Columbia Basin Conservation District.

Master Gardeners set good examples, choose to be professional in their interactions with the public, enjoy the company of other dedicated gardeners, and are willing to work under the direction and guidance of Washington State University. Training community members as certified Master Gardeners is one of WSU's most important contributions to the community's health and the environment where its members live. Many MGs have used what they have learned in the classes, workshops, and volunteer work to change the way they garden and view the natural world and their place in it long after they have left the program.

Program Timeline. The MG trainee program takes about one and a half years to complete, beginning in the fall of one year and extending through November of the next year. In August 2024, approved applicants will be contacted to attend a MG program orientation, which will provide introductions to WSU staff and MG mentors and coordinators. The orientation will also provide a program overview, training expectations, a coursework outline, the schedule for fall in-person labs and field trips, a trainee handbook, and the link to self-pace WSU online training. WSU online training must be completed by December 31, 2024.

After successfully completing this phase of the program, the trainees are considered interns, who must then volunteer an additional 50 hours of public outreach in the next year (2025), working with one or more MG mentors. Once the interns' required hours have been completed, Master Gardener certification is awarded. Thereafter, MG certification is maintained with a minimum of 10 hours of education classes and 25 hours of volunteer time.

Application to Become an MG Trainee. If you're interested in signing up to become a trainee in the Master Gardener Program, go to:

https://extension.wsu.edu/grant/gardening/master_gardeners/

Then, on the Master Gardener Volunteer Program page, click on "Gardening Information" and scroll down to "Become a Master Gardener Volunteer." From there you can access the training brochure and complete the WSU MG Program application. Print and mail your completed application to:

Master Gardener Program
WSU Grant County Extension Office
1525 E. Wheeler Road, Moses Lake, WA 98837

Or, drop off your application at the WSU Extension Office at the address above. You can also email your completed application to ga.mgvolunteers@wsu.edu

MG Demo Gardens Offer Plenty of Water-Wise Plant Options . . . *By Mark Amara*

WSU Extension Grant-Adams Master Gardeners created two public demonstration gardens more than 15 years ago. The Moses Lake demonstration garden, established in 2006 at the Moses Lake Public Library, consists of a non-irrigated native plant garden and an adjacent drip-irrigated drought-tolerant garden. The Othello demonstration garden, established in 2007-2008 at the Old Hotel on Larch Street, consists of a drought-tolerant garden irrigated with drip lines.

The MG demonstration gardens are sources of pride and success. Each is not only beautiful but also showcases some of the drought-tolerant and native plants that have adapted well to our area and serves as good examples of what local gardeners can plant successfully in their own yards. To continue to produce sensational results, our MGs schedule multiple work sessions at each location each year. These demonstration garden work sessions help the gardens remain, vibrant, healthy, visible, and attractive in their respective communities and also provide an opportunity for MGs to get together and talk about and work on one of their favorite activities, sustainable gardening.

The Othello Master Gardener contingent made significant improvements to the Old Hotel demonstration garden in Othello in 2023. MGs R J Lembcke, Terry Rice, Deb Russell, and Linda Crosier were instrumental in making revitalizations. Grant County has four approved heritage gardens, and Adams County, two.

The MG Othello team – Left to right: R J Lembcke, Terry Rice, Deb Russell, and Linda Crosier
Photo credit: Terry Rice

Demonstration garden after mulching
Photo credit: Terry Rice

In the spring of 2023, MGs added a fresh layer of bark and more drought-tolerant perennials, introduced geraniums and herbs, and repaired the drip irrigation system. Then in September, the group partnered with Dinah Rouleau, Columbia Basin Conservation District Manager, to plan two different themed heritage gardens. One section is now dedicated to Native American plants, while the other is focused on medicinal plants. In addition, the group is helping the new owners of the Old Hotel Restaurant with plans for a new heritage garden.

Barbara Guilland in her element at the Moses Lake Demonstration Garden
Photo credit: Mark Amara

Similarly, dedicated Master Gardeners in Moses Lake spent several weekend sessions working at the Moses Lake demonstration garden. This group was instrumental in keeping the native and drought-tolerant gardens pruned, weeded, and mulched. Barbara Guilland led the effort accompanied by Mary Love, Bobbie Bodenman, Don McGraw, and Mark Amara. They collected and removed dozens of garbage bags full of weeds, plant prunings, and other materials, inventoried plants, and planned new additions to put in the garden. New signage is in the works, and they noted that the new hoses installed fall of 2022 have worked without failure. This fall of 2023 they cut back dead plants, pulled weeds, or dug them out. In addition, the MGs shoveled and laid a new mulch layer on the two paths in the drought-tolerant and native plant gardens.

Mary Love and Mark Amara unloaded and spread buckets of a shredded/chipped maple tree from Mark's yard onto the two paths separating the MG drought-tolerant and native plant gardens at the Moses Lake Public Library. Photo credits: Mark Amara

It seemed like the Moses Lake native plant garden was in full bloom for much of the year. Photo credit: Mark Amara

At the Moses Lake drought-tolerant garden in November 2023, spring and summer signage was replaced with seasonal winter signage. Photo credit: Mark Amara

WSU Master Gardener Grant-Adams Demonstration Gardens Receive Recognition as Columbia Basin Heritage Gardens . . . *By Mark Amara*

The Heritage Garden Program, administered through the Columbia Basin Conservation District (CBCD), is dedicated to fostering the establishment of water-wise landscapes and gardens in arid portions of the Columbia River Basin in Washington State. The Program originated as a way to reduce the needs for supplemental irrigation (after establishment) in the arid portions of eastern Washington (annual rainfall of 10 inches or less). It advocates for planting native plants and other low-water-use plants to help save water and money and provide important habitat for wildlife. The program also honors the cultural and natural heritage of the Columbia River Basin and recognizes landscaped areas using sustainable gardening methods that reduce the need for supplemental irrigation (once established) in arid portions of eastern Washington.

A representative from the Heritage Garden Program recently inventoried both the Grant-Adams Master Gardener demonstration garden in Moses Lake and the one in Othello to see if they meet the Heritage Garden criteria outlined below to qualify as a heritage garden.

- Annual area rainfall of 10 inches or less.
- 30% of the total population of plants in a garden or yard get less than 10 inches of water annually.
- No more than 10% of the plants get more than 30 inches of water annually.
- The site must have at least five different plant species. The purpose is to have a diverse plant population that will support a variety of wildlife species (preferably birds, insects, and butterflies), resulting in greater biodiversity.
- Two of the five preferred species must be of value to wildlife.
- The plant population at the site must have at least 75% of plants native to Washington State.
- The garden displays at least one unique geologic feature indigenous to our area, such as basalt, or rock, stone, or boulder deposited from ice age floods.
- The site must have a (drip) irrigation system designed to apply the appropriate amount of water and then plans to remove the water once plants are established.
- Noxious weeds are controlled and eradicated when discovered, and the garden is kept weed free.

The Moses Lake demonstration garden qualified as a heritage garden with no additional plants required. The Othello demonstration garden, however, required more plant diversity to meet the Heritage Garden standards, so the CBCD donated a variety of plants in mid-October 2023 to enhance this garden. Below is the list of plants added to the Othello garden to attain heritage garden status.

New plants added to the Othello Garden this fall 2023 were donated by the Columbia Basin Conservation District. Photo credit: Terry Rice

Heritage Garden Plants

<u>List of plants</u>*

N -Great Basin Wildrye *Leymus cinereus*
N -Idaho Fescue Festuca *idahoensis*
M -Sand Penstemon *Idahoans acuminatus*
M -Snow Buckwheat *Eriogonum niveum*
M -Shaggy Fleabane *Erigeron*
N -Lewis' Blue Flax *Linum lewisii*
X -Silky Lupine *Lupinus sericeus*
N -Venus Penstemon *sericeous venustus*
N -Indian Ricegrass *Achnatherum hymenoides*
X -Munro's Globemallow *Sphaeralcea munroana*
X -Showy Royal Penstemon *minorant spectabilis*
M -Wyeth Buckwheat *Eriogonum heracleoides*
M -Oregon Sunshine *Eriophyllum lanatum*
N -Nodding Onion *Allium cernuum*

*** N - Native M - Medicinal X - Restaurant or front of garden**

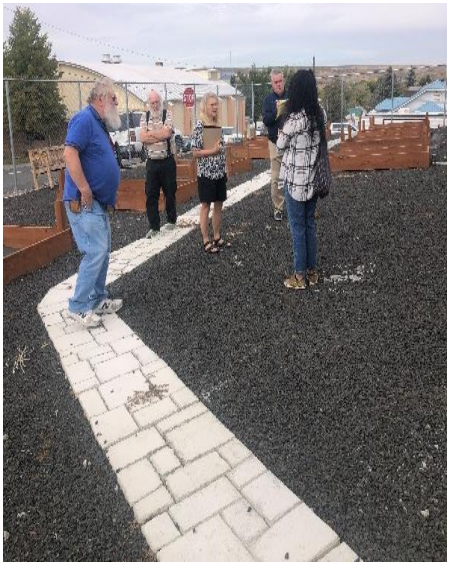
Grant-Adams MGs Provide Outreach to Lincoln County . . . *By Mark Amara*

Lincoln County does not have a Master Gardener program and is outside of the Grant-Adams Master Gardener service area. However, a request came to assist the town of Odessa in setting up a community garden. Grant-Adams Master Gardeners George Roper, Maria Reimers, Mary Love, and Mark Amara accepted the challenge to provide outreach to Lincoln County. They met at the Odessa site with the Odessa School District to discuss plans with Steve Fisk (Superintendent, Odessa School District), Ed Deife (Chairman of the School Board), Justin Parr (Facilities and Transportation), Devin Nelson and Ashley Zagalow, Odessa HS FFA, and Kendra Dean and Mindy Wallace, Administrators from ESD 101 in Spokane.

The plans are to create spaces for the Odessa community to grow vegetables and flowers, reserving at least two of the ten new planter boxes for their elementary students. The Odessa FFA representatives discussed using some of the material in the FFA greenhouse to support its annual plant sale in 2024.

Planter boxes have been set up
Photo credit: Mark Amara

Administration of the garden has yet to be determined. It is expected that FFA students would be assigned to weed the gravel around the boxes without using herbicides and to help with general maintenance. Standard operating procedures will be established to ensure that the spaces are managed properly. Grants for obtaining soil and setting up drip irrigation were discussed. Kendra Dean indicated grants might be sought through Kids in the Garden, Healthy Schools, and Farm to School Programs. The plan is to find funds to bring in soil and after the first of the year start general planning and determine community interest.



George Roper, Ed Deife, Mary Love, Steve Fisk, and Maria Reimers view the site. Photo credit: Mark Amara

To date, land has been purchased, a PEP (Physical Education for Progress) grant provided funding in the last three years to install chain link fencing around the perimeter of the site. A boxcar-style storage unit is located next to it and ten planter boxes have been set up. In addition, water is provided via a hose, and the entire area has been graveled and a brick path installed.

The Master Gardeners provided recommendations on improving the site, adding untreated wooden panels to the sides of the planter boxes to make them higher for ease of access and/or to ensure handicap accessibility. They also discussed filling with (organic) soil and setting up irrigation to each planter box. Grant-Adams Master Gardeners will provide additional assistance and give talks on subjects like drip irrigation, soil amendments, or other gardening topics.

Plant Clinics Are Ways to Connect . . . *By Mark Amara*

The WSU Extension Grant-Adams Master Gardeners offer the public free online plant and insect clinics 365 days/24 hours per day/7 days per week. A clinic email is established so that the public can interact with the MGs every day of the year with their gardening questions and concerns, and a dedicated MG is on call to service and provide answers for urban and rural gardeners.

The public can ask their gardening questions through this service and provide photographs and/or samples, describe their issues in detail, and then send them by email to our year-round email account:
ga.mgvolunteers@wsu.edu

The public may also leave messages for the Master Gardeners at the WSU Grant County Extension Office by calling (509) 754-2011 x 4301 or drop off samples at the Grant County Extension Office at 1525 E. Wheeler Road, Moses Lake, Monday to Friday from 8-5 PM. Additional resources for you to investigate available on our website: https://extension.wsu.edu/grant/gardening/master_gardeners/

MG Volunteers are available to serve Grant County and Adams County communities with workshops or field demonstrations. The public is always welcome to view one of the demonstration gardens located in Moses Lake and Othello. The Grant-Adams Master Gardeners provide information on common sense science-based gardening and pest management principles, conservation and protection of water quality, composting of kitchen and yard waste and identifying and providing solutions to plant and pest problems. Our volunteers also inform and encourage the public to be an 'early warning system' for identified new threats to home and gardening and commercial agriculture. Plants or insects that we cannot identify are passed on to WSU or WSDA specialists for analysis.

The public is encouraged to view our specialty gardens that serve as teaching tools, are examples of plant selections that do well in our area and illustrate sustainable gardening practices. The Master Gardeners maintain both native plant and drought-tolerant demonstration gardens. These gardens are located on the grounds of the Old Hotel in Othello and at the edge of Civic Park at the Moses Lake Public Library.

Build Better Soils with Cover Crops . . . *By Mark Amara*

Consider planting cover crops whenever the ground is bare between plantings in the garden. Cover crops provide wonderful weed control and (wind and/or water) erosion control. They shade and cool the soil and keep it from drying out as quickly. Cover crops can be left standing, mowed, flailed, crimped, or tilled into the soil. As they grow, cover crops can break up compacted layers (plow pans or tillage pans), improve soil structure, recycle nutrients, and take up excess fertilizer. They also reduce weed pressure and can help control soil borne diseases and insects. As cover crops mature, their flowers and pollen help attract beneficial insects to the garden. When cover crops are worked into the ground they are referred to as green manure which adds nutrients and organic matter to the soil and can reduce or eliminate the need to add additional fertilizer. Since soils in the Columbia Basin are naturally nutrient poor and lack organic matter that helps maintain fertility, planting annual or perennial cover crops can be of great benefit.

Cover crops are divided into perennials, planted for year-round cover, and annuals for partial year or seasonal coverage. Though perennial cover crops take longer to become established, having year-round grasses and/or legumes between trees and shrubs or garden rows helps control weeds and reduce erosion. Planting short season varieties of grass and grain seems to be a common method in the Columbia Basin as these crops come up quickly and cover the ground fast, put down extensive root systems, can capture unused nitrogen in the soil, and can be replanted over and over. Cover crops are mowed or tilled into the soil whenever they are fully mature. Many of the crops grown by commercial farmers are also available to gardeners and can be grown easily.

Some gardeners plant cover crops in the fall to provide winter cover while others plant them in spring, summer and/or fall. The reasons for planting at different times vary with the gardener, species planted, and expected benefits. Legumes (preferably accompanied by an inoculant) are natural choices to add nitrogen

to the soil. Grasses and grains are good choices to help compete with weeds. Mixes can increase biodiversity, but dominant species tend to out compete with other plants in a mix. Planting a legume and a grain at the same time could provide complementary benefits: one adds nitrogen while the other adds biomass. Both single species or mixes provide some benefits. Almost any cover crop provides some benefits so gardeners can try one or the other or both using some experimentation to find treatments that work. Examples of annual grasses and grains that thrive in our area include winter wheat, triticale, oats, barley, and annual ryegrass. Recommended annual legumes include vetches, clovers, Austrian winter pea, and fava bean (though planting this later in the season provides limited benefits since it winterkills in eastern Washington). Additional cover crops are restricted to frost free periods, typically planted in late spring and summer, and include buckwheat, yellow mustard, sorghum-Sudan grass, and millets.

Buckwheat
Photo credit: Mark Amara

Columbia Basin soils in Grant and Adams Counties are most susceptible to wind erosion whenever the soil is left bare. Our critical wind erosion periods are in the spring and fall. Grant and Adams Counties have light textured soils consisting mainly of sandy loams, sands, or silt loams that have a high tendency to blow if left unprotected. Also, if there is excessive rain or too much irrigation on unprotected soils, runoff or leaching of essential nutrients, fertilizers and chemicals can occur. Columbia Basin soils are naturally low in organic matter, typically with less than 1% in the top foot of topsoil. Whatever gardeners can do to add beneficial vegetal material is good for the soil to help deter erosion, improve tilth, control weeds, and build a healthier soil. Adding organic matter in this way is not a one-time fix – it should be done annually to maintain or improve soil tilth. Cover crops go a long way to providing these benefits.

Austrian winter peas
Photo credit: Mark Amara

Check out the sources below for seeding rates, availability, planting dates, species, and further justifications.

References

Cogger. Craig, Chris Benedict, Nick Andrews, Steve Fransen, and Andy McGuire. Cover crops for home gardens East of the Cascades. Washington State University Extension Fact Sheet FS117E. 2014. http://cru.cahe.wsu.edu/CEPublications/FS117E/FS117E.pdf

Cover Crops. Oregon State University Extension. https://extension.oregonstate.edu/search?search=cover+crops

Florence, Angela and John Lindquist. Cover Crop Mixture Diversity and Function. University of Nebraska-Lincoln. Institute and Natural Resources CROPWATCH. November 30, 2016. https://cropwatch.unl.edu/2016/cover-crop-mixture-diversity-and-function

Granestein, David, Andrew McGuire and Mark Amara. Improving Soil Quality on Irrigated Soils in the Columbia Basin. Washington State University Extension. FS252E. February 2017. http://www.tilthalliance.org/about/lenwood-farms-booklet

McGuire Andrew. Cover crop best bet is monoculture, not mix. Center for Sustaining Agriculture and Natural Resources. Washington State University. December 21, 2016. http://csanr.wsu.edu/cover-crop-monoculture-not-mixture/#comment-116042

Managing Cover Crops Profitably. Sustainable Agriculture Research and Education (SARE). Handbook Number 9. Third Edition. June 2012. **http://www.sare.org/Learning-Center/Books/Managing-Cover-Crops-Profitably-3rd-Edition/Text-Version/Benefits-of-Cover-Crops.**

Rackham. R. L. and R McNeilan, Cover Crops for Home Gardeners. Oregon State University Extension. Corvallis. Revised September 1994. Reprinted February 1999.
https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/fs304.pdf

Mark Your Calendar

April 20, 2024: Eco-Gardening Symposium

Plans are being made to co-host the 7th Annual Columbia Basin Eco-Gardening Symposium with the Columbia Basin Conservation District on Saturday, April 20th, 2024. The theme is water conservation: what the home gardener needs to know about the water situation locally, why gardeners should care, and what options gardeners might have to respond to water availability challenges. More details to come.

May 4, 2024: Annual Master Gardener Plant Sale

The Grant-Adams Master Gardeners' annual plant sale will be held at McCosh Park in Moses Lake on opening day of the Moses Lake Farmers Market, which begins Saturday, May 4, 2024. MGs have selected a wide variety of seeds to grow in its Quincy greenhouse from January through April and have already started growing over 100 plants from cuttings taken in the fall for this sale. The focus for 2024 is to offer the public a greater selection of drought-tolerant plants that grow well in the Columbia Basin as well as offer a wider selection of perennial plants that require less watering than annuals. As in past years, a variety of heirloom vegetables will also be available for this sale.

The MG annual plant sale is the primary fundraising effort to support the Master Gardener program in Grant-Adams Counties. Proceeds from the sale make it possible for our Master Gardeners to offer free or low-cost, research-based gardening and environmental stewardship, and learning opportunities in our community.