



GROUND

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Washington State University (WSU) Master Gardeners Provide Public Value for Food Sustainability

WSU Master Gardeners (MGs) volunteers are the go-to resource for home gardeners seeking research-based, innovative solutions for their ever-changing horticulture and environmental stewardship needs. But did you know that MGs throughout the state also offer many benefits to its citizens to improve Washington’s food sustainability, health, and wellbeing through its many local plant clinics, demonstration gardens, training and educational programs?

INSIDE THIS ISSUE

MGs Provide Public Value

Winter Sowing

Annual Gardening
Symposium – April 20, 2024

MG Plant Sales

Getting to Know Your Zone

MGs of the Year

Recruiting new MGs for Fall
Training

Mark Your Calendar

The MG Program mission embraces four pillars to help our counties create an adaptable work force, provide a secure food supply system, maintain sustainable natural resources, and support healthy communities. Food insecurity in Washington State is significant, according to four WSU and University of Washington food security surveys conducted over the past few years. They showed that between 27% - 49% or up to 1.5M of Washington households experienced food insecurity from 2020-2023, resulting in decreased academic success, chronic physical health conditions like diabetes and obesity, and mental health disorders (WAFood Brief 14). Additional studies show that food insecurity causes an economic and mental health burdens across Washington:

- Diabetes costs Washington’s healthcare system \$ 6.7 billion a year (WA DOH)
- Mental health care cost estimates are \$708 million a year (JAMA)
- Obesity costs Washington’s healthcare system \$2 billion a year (CDC)

Addressing these concerns, MGs throughout Washington in 2022 held 900 classes, workshops, demonstrations, and field days, answered 10,000 questions on growing food through plant clinics, podcasts, newsletters, tip sheets, food demonstration gardens, community gardens, partnered with SNAP-Ed, 4-H, Veterans Affairs, immigrant and low-income communities, and correctional facilities. MGs donated 36,500 lb of produce and 5,000 vegetable seedlings (valued at \$135K), making nutrient-dense foods easily accessible and locally feeding 160 households for a year. With your participation even more can be accomplished in the coming years.

References:

WAFood Brief 14-Washington State Food Security Surveys: Cross-sectional findings from survey waves 1-4, 2020-2023

<https://foodsystems.us.edu/wp->

CDC <https://www.cdc.gov/obesity/about-obesity/why-it-matters.html>

Diabetes Epidemic and Action Report December 2023

<https://doh.wa.gov/sites/default/files/2024-01/140255->

[DiabetesEpidemicActionReport-20240124.pdf](https://doh.wa.gov/sites/default/files/2024-01/140255-DiabetesEpidemicActionReport-20240124.pdf)

JAMA Health Forum, Economic Burden Associated With Untreated Mental Illness in Indiana, Heather L. Taylor, PhD, MPH, RDH; Nir Menachemi, PhD; Amy Gilbert, JD, MPH; Jay Chaudhary, JD; Justin Blackburn, PhD, 10/13/2023

Old Hotel Winter Sowing Class . . . By Terry Rice

Grant-Adams Master Gardeners Terry Rice, Linda Crosier, and Deb Russell demonstrated winter seed sowing techniques during a class offered to the public at the Old Hotel Master Gardener Drought Tolerant Garden in Othello, WA, on February 15, 2024. Eleven adults and seven children planted marigolds and a few other hardy flower seeds in gallon jugs that they then took home and set outdoors after planting. This method is also an ideal way to start a wide variety of vegetables, herbs, and flowers.

I have been using this method for over 10 years and find it is an effective way to start seedlings. Once the containers are filled with soil and seed, they are then left in a sunny area outside until they sprout. This type of seed starting produces sturdier plants than those started on windowsills. It is also a great way to reuse some of the plastic containers that would just be tossed into the landfill. It's important to make holes in the bottom for drainage and the top so moisture can get into the containers. My soldering iron works well to accurately make the holes. With my experience through the years, I discovered the pots in the bins dry out a little faster than using milk jugs so that supplemental additions of water are needed. It is a lot easier to pop the lids off and give them a good soaking than it is getting water in the tops of the milk jugs although other plastic containers also work well for winter sowing.

This is a method that works well in our climate and offers lots of options. I hope that many of you will try it. Many people start as early as the Winter Solstice and continue planting through March. Just remember to be patient because your winter sown seedlings will start sprouting when nature says it's time.

Grant-Adams Master Gardeners will hold future classes for the public during 2024 at the Old Hotel in Othello:

- Thursday, May 9th –Mother's Day Geranium
- Thursday, May 30th—Pesto Pots
- Thursday, June 20th—Lavendar Wands

A class on native plants and Heritage Gardens will also be offered later in the year, but a date has not been set yet. For more information or to sign up for an upcoming class, contact the Old Hotel Art Gallery at (509) 488-5936 or talk to one of the Grant-Adams Master Gardeners.

References:

Brown, Pam. Seeds for Winter Sowing: Lots of New Plants for Little Dough, with Little Effort, in Little Space. North Carolina State Extension, Master Gardener, Mecklenburg County. 2010.

<https://www.mastergardenersmecklenburg.org/seeds-for-winter-sowing.html>

Goldberg, Marsha. Master Gardener. Fairfax County, Virginia. Sow Your Seeds Outdoors --- in Winter! No. date. Winter Sowing - Fairfax Gardening

Rice, Terry and Duane Pitts. WSU Grant-Adams Master Gardeners. Plant Your Spring Garden Now! GROUNDED. Vol. 9 #4. Pp. 8-9. November 2020

Takajain, Elizabeth. Winter Sowing. Cornell University Cooperative Extension of Suffolk County. 2014.

<https://blogs.cornell.edu/ccesuffolkfhw/2014/01/20/winter-sowing/>

Winter sowing forum at gardenweb - Winter Sowing FAQ - Home Design Discussions, Winter sowing FAQ page



Terry Rice and a child prepare planters. Photo credit: Linda Crosier



Plastic container with holes drilled into top. Photo credit: Terry Rice

Register Now for the 7th Annual Eco-Gardening Symposium April 20th . . . by Sharon Hastings

This exciting free event co-sponsored by WSU Grant-Adams Master Gardeners & Columbia Basin Conservation District will be held Saturday, April 20th, 2024, from 9 am to 1 pm at the ATEC Building at Big Bend Community College. It will bring together gardening enthusiasts, experts, and nature lovers from across Grant and Adams Counties. Together we will learn innovative, waterwise tips and techniques to produce beautiful and productive gardens in harmony with the land we all love.

Specifically, the symposium will address “what is the water situation” in Grant-Adams Counties and “why should you as a gardener care?” You will acquire easy and frugal skills to respond to water challenges, whether you have a few pots on your deck or a large garden plot. You will also see examples of how successful, waterwise gardeners in Grant-Adams Counties are creating ornamental and food gardens you would be proud to have at your own home.



Harold Crose

Harold Crose, Associate Supervisor for Grant County Conservation District, 6 years as Commissioner on the State Conservation Commission, Moses Lake Watershed Council Chairman, leads off our waterwise education day. You will learn about the aquifer that lies beneath all of us in Grant and Adams Counties—from Ritzville to Othello to Moses Lake to Quincy. What will we do with water available to us? Is our shared aquifer in good shape? How do we compare with folks living in the Southwest, Midwest, California, or Western Washington?

Next, Tim Kohlhauff, Certified Arborist and the Urban Horticulture MG Program Coordinator for WSU Extension, Spokane County, will tackle waterwise gardening specifics. How does a Grant-Adams gardener begin to water more efficiently? What equipment do you need? What plants? Lawn? How about soil, weeds, pests? Then, there is always the expense and return on investment. Tim has the research-based answers to gently step you through ways you can begin saving water (and irrigation costs) as soon as this summer.



Tim Kohlhauff

Dinah Rouleau, Project Manager for the Columbia Basin Conservation District, is the coordinator of the Heritage Garden Program in Grant County. Her talk will focus on how to create a beautiful landscape for your home using native and heirloom perennials, shrubs and trees that thrive in Grant-Adams Counties. She will share photos of gorgeous gardens at homes throughout the Columbia Basin. Waterwise gardens can be attractive and productive! Dinah will show us how.



Dinah Rouleau

The Symposium includes great mini demos: “Thriller, Spiller, Filler” pots using perennials and tips on how to care for your orchids. We’ll look at the lovely demonstration garden developed by MGs at the Old Hotel in Othello for more ideas. Our exhibitors from Grant-Adams Counties will connect you with the local waterwise supplies and services you need. The Symposium offers free food and beverages and drawings for three generous and amazing waterwise door prizes. Tickets (FREE!) are going fast, but registration is required.

Register online by going online to the Master Gardener website:

extension.wsu.edu/grant/gardening/mastergardeners/

or clicking on the QR code to the right



Master Gardeners Hold Plant Sales at MG Spring Events in Moses Lake

Master Gardeners have been busy in the Quincy greenhouse planting and tending hundreds of drought-tolerant flowers and grasses as well as a variety of heirloom vegetables and herbs since late January in preparation for two community events coming up soon.

The first event is the 7th annual Eco-Gardening Symposium on April 20th at the ATEC building at Big Bend Community College. Attendees can purchase hardy quart-size drought-tolerant plants for their landscapes, including three varieties of echinacea and ice plant, two varieties of gaillardia, and dianthus, penstemon, liriopie muscari, creeping thyme, blue marble salvia, rosemary, artemisia silver mound, pussytoes, Corsican mint grass, lemongrass, and Kar Foerster grass.

MGs will have many more plants available for purchase for the second event on opening day of the Moses Lake Farmers Market at McCosh Park on Saturday, May 4th, from 8 am to 1 pm. Our annual fundraising event will include a variety of vegetables such as tomatoes, peppers, eggplant, cucumbers, squash, pumpkins as well as herbs and perennial and annual flowers.



Marylou Krautcheid by three tables of geraniums raised at the Quincy greenhouse. Photo credit: Diane Escure



Three greenhouse tables filled with drought-tolerant plants for upcoming plant sales in Moses Lake. Photo credit: Diane Escure

Greenhouse operations have relied heavily on support from a core group of Master Gardeners: Marylou Krautscheid, Glenn Martin, Maria Reimers, Diane Escure, Marta Tredway, Bobbie Bodenman, Patience Harris, and Don McGraw.

Getting to Know Your Zone . . . By Mark Amara

In 2023 USDA introduced updates to the Plant Hardiness Zone Maps for regions throughout the United States (and Puerto Rico). The 2023 USDA hardiness map for Washington State, shown below, is based on average annual extreme minimum winter temperatures in 10°F divisions displayed in identified hardiness zones throughout Washington State. The map covers the entire United States, and users can enter their zip codes to target zones in their region (<https://planthardiness.ars.usda.gov/>).

2023 USDA Plant Hardiness Zone Map Washington



Zone 1 is the coldest and Zone 13 is the warmest. Notice that in Washington State, zones range from 4-9. Each zone is divided into half zones designated as a and b, which are in 5-degree increments. Zone numbers are important because they typically coincide with descriptions of perennial plants in catalogs and other places where plants are sold. This zone map is a general guide for growing perennial plants. It can help gardeners determine which woody and herbaceous perennial plants should grow well in their yards and gardens and which ones are most likely to be affected by winter injury.

Additional research sought clarification on specific last frost dates from national and regional scientists so gardeners could plan for planting. According to Dr. Todd Rounsaville at USDA, “the Plant Hardiness Zones are calculated using annual extreme low temperatures. Within any given zone, additional variables such as first/last frost date can vary significantly due to local conditions. Accordingly, there are no set frost dates that correspond to Plant Hardiness Zones.” However, Christopher Daly, Oregon State University, says the data “indicates that for areas identified as agricultural lands, the approximate median date of the last 32°F freeze for the period 1993-2022 is May 6 in Adams County and April 20 in Grant County [Washington].”

What is interesting is that our zones in Grant and Adams Counties have shifted a little. The 2012 Hardiness Zone map showed that Moses Lake was in zone 6b (-5° to 0° F / -20.6 to -17.8 C), but with the new 30-year averages, temperatures are warming, and the Moses Lake area is now in Hardiness Zone 7a (0 to 5° F / -17.8 to -15 C). Throughout Grant-Adams Counties, average temperatures have warmed 2-5 degrees over the last

30 years. Even though our zone has changed, plants that are doing well now should continue to do well, and for those that are not, consider the range of factors that could be affecting them and make changes as needed to ensure successful growing conditions.

The 2023 USDA plant hardiness zone map is based on long-term average lowest temperatures from 1991-2020, covering a 30-year time span for a given location, not the lowest temperatures ever. For gardeners, the map is a tool and not the final word especially if, for example, there is an extreme cold snap. Also, past weather records don't provide guaranteed forecasts. Gardeners should be aware that several factors affect plant survival including wind, moisture, soil type, humidity, plant location in the landscape, temperature, light, size, and health.

References and personal communications:

Daly, Chris. Professor (Sr. Res.), Chemical, Geological and Environmental Engineering Director, PRISM Climate Group and Chief Scientist, Northwest Alliance for Computational Science and Engineering, Oregon State University. February 29, 2024. phzminfoZ@usda.gov and daly@nacse.org

Rounsaville, Todd, PhD. Woody Landscape Plant Germplasm Repository, USDA-ARS, U. S. National Arboretum. February 29, 2024. phzminfo@usda.gov

2023 USDA Plant Hardiness Zone Map. Agricultural Research Service. U. S. Department of Agriculture <https://planthardiness.ars.usda.gov/>.

2023 Master Gardeners of the Year Announced

Each year the WSU Extension Grant-Adams Master Gardener Program recognizes one or more individuals who have met the highest standards as Master Gardeners from their outstanding efforts in the previous year and awards them the honorary title of Master Gardener of the Year. Glenn Martin and Marylou Krautscheid received the 2023 Grant-Adams Counties Master Gardener of the Year awards at a recent MG Foundation meeting.

Both MGs met or exceeded the statewide MG Program criteria, which includes accomplishments in the following categories: community involvement, educational impact within the program and/or community, promotion of the WSU Master Gardener (MG) program and its goals, leadership role, time commitment, and legacy by making a lasting contribution to the program.

Glenn Martin set a high standard for the continuing success of the MG program. Glenn has been a volunteer since 2017, has served since 2020 as president of the Master Gardener Foundation of Grant-Adams Counties and was just reelected for another two-year term. Through Glenn's leadership in the MG Foundation of Grant-Adams Counties, which provides funding for the MG program, our program has endured and prospered from pre-COVID to the post COVID years, ensuring that it will be sustained into the future.

During 2023, Glenn helped in negotiations to obtain a Quincy greenhouse for raising plants for an annual MG fundraiser and contributed one of the highest number of hours in 2023 towards its operation and plant propagation activities there. Glenn was instrumental in working with the City of Quincy to organize and manage a Master Gardener plant clinic at the Quincy Farmers Market one Saturday per month, increasing visibility of the program in the community. He also made the extra effort to work plant clinics outside his community at the Othello Fair, the Grant County Fair, and the Master Gardener online clinic, mentoring interns on clinic procedures. Additionally, he helped with the annual plant sale and the Eco-gardening Symposium in Moses Lake.



Glenn Martin with his 2023 Master Gardener of the Year award.
Photo credit: Mark Amara

Marylou Krautscheid contributed 97 hours of volunteer service to the Master Gardener program in 2023. As a major contributor to the success of the 6th annual Eco-Gardening Symposium, she served on the event planning committee, obtained door prizes and attendee swag bags, grew/transported an assortment of plants for sale to the public, and handled attendee registration at the event.

The MG program recognizes Marylou’s efforts at the Master Gardener greenhouse in Quincy where she spent countless hours providing seed identification and plant ordering, planting, pruning, transplanting, watering, tagging, and pricing over 1000 plants from February through May and worked at three successful MG plant sale events. She worked with the Columbia Basin Conservation District last summer to plan and plant drought-tolerant and native plants along the N. Washington Way walkway to the front of the City of George Recreation Center, and she grew and planted 100 geraniums for the Lamb Weston city beautification project in Quincy.

In addition, Marylou worked at the Master Gardener plant clinic last summer in Quincy, answering gardening questions from the public and judged 4-H produce entries at the 2023 Grant County Fair in August.

She serves on the board of the WSU State Master Gardener Program, representing Grant-Adams Counties and attends the annual WSU State Master Gardener Advanced Education conference.



Marylou Krautscheid with her 2023 Master Gardener of the Year award. Photo credit: Diane Escure

Training New Master Gardeners in 2024 . . . By Mark Amara

The next scheduled training for anyone interested in becoming a certified Washington State University (WSU) Grant-Adams Master Gardener volunteer will begin in September 2024. Those interested in joining the program are encouraged to apply.

Requirements for Master Gardener candidates:

- Have a strong volunteer ethic
- Commit to become a volunteer educator for WSU Extension
- Pass federal background screening
- Complete on-line WSU education classes between Sept-December 2022
- Abide by WSU Master Gardener regulations
- Be willing to take additional required training annually and participate in volunteer activities.

Certified Master Gardeners are dedicated and committed to becoming volunteer educators for WSU Extension in Grant and Adams Counties. Through this program, Master Gardeners can expand and extend their horticultural knowledge on all aspects of gardening and share it with the general public, including youth, work as team members to solve gardening challenges, and enjoy the company of other dedicated gardeners. Primary responsibilities include teaching and serving as a resource on horticulture and gardening topics, staffing exhibits, holding plant clinics, and working in demonstration gardens. There are frequent interactions with the public, extension staff and other volunteers to plan and present horticultural information and write for the Master Gardener quarterly newsletter *Grounded* or other news sources.

Besides all that, Master Gardeners set good examples, are professional, 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 communities’ health and the environment in which we live.

The program takes part of two years to complete from start to finish. Applications are approved and training classes are organized. The first class begins with an introduction to the program, expectations, introductions, and scheduling face-to-face meetings and classes. An online component, which introduces the applicant to many of the subject areas that Master Gardeners may delve into, is self-paced and the intern completes assignments and quizzes.

Part of this initial training is accompanied by labs and field trips to farms, research plots, and gardens which amount to 60 hours or more in the first 3 months. After successfully completing this phase of the program, the intern volunteers an additional 50 + hours of public outreach working with one or more mentors the following year. Once there, certification is maintained with a minimum of annual training and volunteer time each year. Many who become Master Gardeners teach classes, staff plant clinics, answer questions from the public about gardening through the online plant clinic or are prolific writers. Many use what is learned in the classes and workshops to change the way they garden and view the natural world and our place in it.

If interested in signing up for the Master Gardener Program, go to:

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

Then, 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. You can mail your completed application to:

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

or drop your completed application off at the Extension Office. Applications can also be emailed to ga.mgvolunteers@wsu.edu. Further information will be provided this coming summer 2024 on class orientation and the training class schedule.

Mark Your Calendar

7th Annual Columbia Basin Eco-Gardening Symposium. April 20, 2024, 9 am to 1 pm. Water conservation is the theme for this free event.

Master Gardener Foundation of Grant-Adams Counties Annual Plant Sale. Saturday, May 4, 2024, 8 am to 1 pm at the first Moses Lake Farmers Market in McCosh Park.

Grant-Adams Counties Foundation Officers:

Glenn Martin, President, 509-699-8466
Barbara Guiland, Vice President, 509-765-3912
Diane Escure, Treasurer, 509-289-6022
Mark Amara, Secretary, 509-760-7859
Marylou Krautscheid, At Large, 509-750-8660

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