GROUNDED

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Grant/Adams Master Gardeners

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http://county.wsu.edu/grant-adams/Pages/default.aspx · ga.mgvolunteers@ad.wsu.edu

Governor Honors Master Gardeners . . . *By Kris Nesse*

In late April, Governor Inslee issued a proclamation designating May 10-16, 2015, Washington State University (WSU) Master Gardener (MG) Volunteer Week. In it he noted the program's 42 years of service to the citizens of the state and declared it a model of volunteer service. Founded by WSU in 1973, the program offers trained volunteers who dedicate many hours using their love of gardening and desire to contribute in positive ways "to enhance natural resources and environmental stewardship, improve health and wellness of Washington residents, and create and sustain vibrant communities and urban neighborhoods". The Governor noted that in 2014 about 3,300 MG volunteers served more than 330,000 Washington residents, and this remarkable service returned to Washingtonians over ten times the funds spent on the program's maintenance.

Locally, 18 Grant-Adams MG volunteers contributed over 2,000 volunteer hours in 2014. This year is off to a great start. During the first 5 months of 2015, MG volunteers worked to ready for the season the Moses Lake Library Drought-Tolerant Demonstration Garden, the Ephrata Community Garden Pollinator Border, the Othello Drought-Tolerant Garden, the Adams County Pet Rescue Community Garden, the Quincy Reiman-Simmons House Native Plant Garden, and the Soap Lake Healing Waters Demonstration Garden.

MG volunteers have also educated Grant-Adams residents by holding a first-annual symposium, offering classes and presentations, writing newspaper articles, and answering questions at its annual plant sale. Topics covered have included:

Trees and Shrubs for Low-Water-Use Gardens
Becoming Water-Wise for Lawns
Drought-Tolerant Plants
Birds in the Backyard
Tomatoes 101
The Importance of Pollinators
Planting Landscape Trees
Watering Wisely
Winter Sowing
Making Hypertufa Tubs
Mother's Day Garden in a Pot

Over 183 local folks benefited from this education. MG volunteers also wrote, edited, and published the quarterly newsletter *Grounded*, which can be accessed at http://ext100.wsu.edu/grant-adams/ gardening /master_gardeners/.

January through May 2015, 12 of our 22 MGs logged almost 600 volunteer hours (volunteers are encouraged to record volunteer hours via a WSU

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website and many save and record close to year end). Many other regular clinics and services are slated for 2015. So far this year, the WSUE office clinic (online and live), as well as the first community plant clinics of the season, have answered questions for at least 90 local gardeners/ homeowners.

If you or your group have questions to ask Master Gardeners or would like a presentation, use the email link at ga.mgvolunteers@ad.wsu.edu, check the website at grant-adams.wsu.edu, or contact Program Coordinator Jeannie Kiehn at 754-2011, Ext 2313. Thanks to all the Grant-Adams Master Gardener volunteers for their service to our communities.

2015 Annual MG Fundraiser A Success . . . *By Kris Nesse*

Sunshine, a huge variety of quality plants, enthusiastic customers, and knowledgeable Master Gardeners all contributed to Grant-Adams Master Gardener Foundation's successful plant sale held May 9th at the Moses Lake Farmers Market in McCosh Park.

All ages participated in the sale

The plant sale offered hundreds of heirloom and hybrid tomatoes, a variety of other vegetables, herbs, annual ornamentals, locally adapted perennial trees, shrubs, flowers and grasses, as well as garden gift items and books. Hundreds of customers took plants home along with descriptions and cultivar information.

Veteran and new Master Gardeners spent many hours at the Big Bend Community College greenhouse and their home greenhouses growing plants for the sale. In addition, plants from MG homes and demonstration gardens were propagated, dug, and nurtured to offer at the sale. These WSU-trained experts were also on hand to describe plants and help customers with growing information.

Local patrons donated items that were packaged in seven groups for the annual raffle held in conjunction with the plant sale. MGs pre-sold raffle tickets as well as offered them for purchase at the plant sale. Drawings were held at noon to determine the winners for each category.

This 8th annual fundraiser earned more than $3,300 to help support MG demonstration gardens, educational presentations, and training. The Grant-Adams Master Gardener Foundation thanks the raffle prize donors and all the gardeners who came out to support our sale!

Greenhouse plants grown for sale

Raffle Sale Donors

Cynthia Calbick, George Roper, Jeannie Kiehn, Edris Herodes, Terry Rice, Ken and Angela Greene, Nancy and Dennis Parr, Nicole Meaney

Master Gardener Spotlight: Linda Crosier . . . *By Terry Rice*

Linda Crosier, a Master Gardener since 2003, has been actively involved in plant clinics and helped plan and implement the drought-tolerant demonstration garden at the Old Hotel in Othello. Last fall, 2014, she worked on planning and planting the gardens around the Adams County Pet Rescue building that will be the focus of the Animal House TV pilot program. Crosier also teaches classes in hypertufa, container gardening, and mosaic stepping stones for the Othello Community Schools program and at a local nursery. Linda is an active member of the Othello Beautification Committee where she serves as treasurer.

Succulents in a tire rim

When you visit Linda's yard, the first thing you notice are her unique planters and yard art. She has always loved antiques and has extended this collection to her garden. It's hard to pass an antique store or a flea market when you travel with Linda. She always finds a treasure.

Unique use of mosaics on a tire rim and plate

Linda has been a stained glass artist for many years and some of her creations find their way into the garden. Her latest project is a mosaic wheel rim that she has planted with annuals.

Linda with her stained glass garden creation

Linda's favorite plants are succulents and hostas. They are both ends of the spectrum, but she places them in her yard in pots and old sinks and all kinds of repurposed containers. She prefers container plantings that sit on ground cover and mulched flower beds so she doesn't have to spend so much time weeding. More time to play!

She suggests the following resources for inspiration:

FleaMarketGardening.org
HighCountryGardens.com
Succulent Fanatics on Facebook

References

Ext100.wsu.edu/kittitas/wp-content/uploads/sites/19/.../Hostas1.pdf
www.pnwplants.wsu.edu/PlantDisplay.aspx?PlantID
Ext100.wsu.edu/clark/wp-content/uploads/.../HostasAndFerns.pdf
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Waterwise Gardening Tips

As we head into the summer months and much warmer weather, here are some ideas to consider for conserving water and lowering water bills. These ideas were compiled by Linda McMahan, horticulturist with the OSU Extension Service.

- When you're considering new plants, take a look at common waterwise plants, such as black-eyed Susan, sunflower, blanket flower, California poppy and coneflower. Once established, these plants require minimal irrigation. Group waterwise plants together for maximum water savings.
- If you like colorful bedding annuals such as zinnias, marigolds, impatiens and petunias, consider putting them in pots or hanging baskets where you can provide water directly, rather than watering the entire garden.
- Hand-water if possible. Research shows that hand-watering can be the most efficient way to irrigate because you often can see when the soil is moist and provide water only when the plants need it. "Turn off the automatic sprinkler this summer and enjoy the outdoors in a new way," McMahan suggested.
- Weeds won't be watered if you fill a milk-type jug and put it upside down beside a plant, burying the spout in the soil. Or bury a coffee can, used gallon pot or milk jug right beside the plant after poking drainage holes in the bottom or sides. Fill the container with water and let it drain out slowly.
- Soaker hoses are an alternative. Hook them to an automatic timer of some kind so you don't forget to turn off the water. This works for both vegetable and ornamental gardens. Drip irrigation is another possibility and works particularly well for shrubs.

Reference

Oregon State University Extension Service, *Waterwise Gardening Tips*, Linda McMahan, 7/10/2010

Get Drought Ready: New Extension Site Offers Updates and Conservation Tips for Dry Year

Let's face it. Washington State is in a drought. And there is a lot that we can do about it, with help from the just-launched WSU Extension drought website (http://drought.wsu.edu).

This new website, which was developed by WSU Agricultural Weather Network Program (AgWeatherNet) and WSU Extension, shares timely updates and a wealth of water conservation information to help state residents and farmers handle a dry year, and perhaps beyond.

"We are all dependent on our waters," said Gerrit Hoogenboom, AgWeatherNet director. "The long-range weather outlook continues to suggest enhanced odds of warmer and perhaps drier than normal conditions for Washington through early 2016."

That's why the drought website was developed: to provide farmers, ranchers, homeowners, foresters and the general public with research-based publications, drought updates, useful links, as well as news on drought-related issues. Topics covered include conservation tips for the home and garden, irrigation management, forestry, crops and livestock.

A Drought Basics page helps residents understand what happens in a drought. There's also a Washington Drought Twitter feed, where you can sign up to follow updates, and a link to AgWeatherNet, which operates 160 automated weather stations in Washington and Oregon and helps farmers plan and react to weather.

The current drought began last winter. Although Washington had average to above-average precipitation this year, there has been significantly less snowpack due to higher-than-normal temperatures. This, in turn, affects water supplies for irrigation and stream flows that depend on melting snowpack throughout the summer and early fall. According to AgWeatherNet, Washington may not only be facing a low-water-supply situation, but also higher demand, since water may evaporate more in warmer, drier conditions.

Links to more information

- Learn more and sign up for WSU Extension Drought Website updates at http://drought.wsu.edu.
- Learn more about AgWeatherNet and follow weather updates at http://www.weather.wsu.edu.

Biodegradable Plastic Mulch Research Benefits Northwest . . . *By Mark Amara*

Last fall 2014, a federally funded USDA SCRI (Specialty Crops Research Initiative) program (2- to 5-year multi-million dollar grant) was awarded to researchers and extension personnel at the University of Tennessee Institute of Agriculture, Washington State University, and Montana State University to test biodegradable plastic mulches. The purpose of the SCRI program is to address the critical needs of the specialty crop industry by awarding grants that support research and extension efforts to address key challenges of national, regional, and multi-state importance in sustaining all components of food and agriculture, including conventional and organic food production systems. Others may find its relevance on smaller-scale operations which include smaller acreage farms or in home gardens.

Growers all over the US annually wrestle with how to dispose of plastic mulches that they use to produce their crops. Commercial specialty fruit and vegetable crop growers, especially, depend on mulches for assisting them with tomato, strawberry, and pumpkin production.

Plastic mulches form an impermeable barrier that helps reduce weed competition, conserve water, and minimize soil erosion. However, how and when mulches are removed after the growing season often inflates labor and disposal costs and increases adverse soil impacts. Mulches are routinely taken to landfills, burned, or left out to degrade on their own in and out of the field. In essence, there are no good environmentally friendly alternatives to dispose of them. Residual plastic left in the field or elsewhere takes a long time to deteriorate and can negatively impact wildlife and water quality.

Growers and gardeners throughout the nation have no effective strategy for disposing of the plastic mulches they use to produce crops, so they often pile them on their property or are illegally burned. Image courtesy UTIA.

To address the challenge, 19 experts at UTIA, WSU, and MSU are working on a $1.9 million dollar 2-year USDA grant to study the performance and adoptability of biodegradable plastic mulches (BDMs) for sustainable specialty crop production. If enough progress is shown in the first two years of the program, it could be extended to five years with an additional $3 million dollars. The effort is led by Doug Hayes, a polymer scientist with UTIA's Dept of Biosystems Engineering and Soil Science (BESS), Annette Wszelaki, a UT Extension vegetable production specialist, and Jennifer DeBruyn, a soil microbiologist, also with BESS.

The team includes an advisory committee of experts with government regulators, industry experts, plastic mulch manufacturers, growers, representatives of producer groups, and research and extension specialists. One of the advisory committee members is Master Gardener Mark Amara, who traveled to Knoxville, TN, in March 2015 to attend the first annual advisory committee meeting. His group interacted with and made recommendations to the researchers. The March meeting included 35 team members and advisors who engaged stakeholders and worked to help ensure team wide collaboration.

UTIAs Ag Research and Education Center in Knoxville, TN and WSU's Mt. Vernon Research Center are being used for field trials, offering different climates and soil conditions although additional on-farm testing will be conducted in each state to represent varying conditions and unique environmental challenges (like ours in the Columbia Basin). According to Doug Hayes, BDMs have been substituted for conventional plastic mulches for more than 30 years, but growers have not widely incorporated them into their operations. "Their high cost, a lack of knowledge about how they might benefit long term sustainability, and their unpredictable breakdown have all contributed to their limited adoption," says Hayes.

BDMs are supposed to act as well as conventional plastic mulches and be 100% biodegradable, either in the field or when composted, without leaving toxic residues says UT researcher Annette Wszelaki. However, none are performing adequately. They do not break down completely in the field and have the potential of exacerbating an already costly disposal issue. Examining the rate and kinds of breakdown of BDM products and whether they are beneficial or detrimental may have important implications for conventional and organic crop production and gardeners alike.

According to project leader Doug Hayes, the project will study the use and breakdown of five BDMs and their effect on the soil ecology and crop production as well as barriers to adoption of this technology and an assessment of the impact of these mulches on the environment. Hopefully, the barriers to adoption can be overcome by the production of quality products that can help us in the development of best practices for BDM deployment and disposal. If this goal can be reached, then increased use by BDM stakeholders should result, followed by economic and environmental benefits for growers, gardeners, and consumers.

The biodegradable mulch project is evaluating products that can have far reaching benefits for large and small growers and even home gardeners. It is important to continue encouraging the industry to look for formulas that are environmentally friendly. This collaborative effort encourages researchers, industry, and farmers to work together to test products that biodegrade into inert elements or are nearly fully utilized by organisms, are sturdy (durable) enough to last through the growing season, and do not adversely impact the soil. They also should help with retaining soil moisture, controlling weeds, minimizing soil erosion, and be easy to use. Quantifiable outcomes of these grants can provide the justification for continued studies and possible realistic end products (for example, compatible with the high winds indicative of the Columbia Basin's dry climate). Testing biodegradable mulches in a variety of soil and climatic conditions and environments, especially with interested farmers, both large and small, can help iron out some of the challenges, and may help with earlier adoption. This project realistically can be on the cutting edge of technology. Having growers involved adds a real-world element to the process, brings the science to the field and, perhaps, offers other common sense approaches.

As the project continues, there may be opportunities to test some of the BDM materials at the local level in the Columbia Basin through the Master Gardener program. Stay tuned for further developments.

References

https://ag.tennessee.edu/biodegradablemulch/Pages/default.aspx.
http://biodegradablemulch.org. Biodegradable Mulch for Organic Production, WSU Mt Vernon NWREC Report 102 by Carol Miles and E. Scheenstra. May 5, 2015 Biodegradable Mulch Products
https://ag.tennessee.edu/biodegradablemulch/Pages/biomulchprojects.aspx.

HORTUS MUSTUS

Grant-Adams MG Recommended (or Appreciated) Plants—Wildflowers . . . *By Kris Nesse*

(This regular feature of *Grounded* presents plants loved by one or more Grant-Adams Master Gardener volunteers.)

The Hortus Mustus column this month takes a hike, literally and figuratively. May walks revealed once again the incredible diversity of plants blooming in the wild in our part of eastern Washington. So, instead of featuring beloved species from our gardens, we thought a glimpse of some of the wildflowers from our part of the world was in order.

Shrub-steppe is the dominant ecosystem of the Columbia Basin. We live in a "cold desert", a semi-arid place. As in other ecosystems, annual precipitation and temperature from season to season determine what plant and animal communities exist here. Drought is one of the characteristics of Grant-Adams Counties, with as little as 3-6 inches of rainfall per year, and temperatures ranging from over 100°F in the summer to below freezing in the winter.

These harsh conditions mean plants and animals have had to adapt in interesting ways to survive. For instance, many plants have summer and winter dormancy with large, deep below-ground storage organs.

Other species have waxy coatings on leaves to limit water loss, while sagebrush has developed tiny hairs to deflect the drying wind.

Arrowleaf balsam root

These adaptations mean we have plenty of beauty and diversity all around us! In May alone, a walk, or even a drive down the highway, revealed fields of yellow arrowleaf balsamroot, punctuated with blue larkspur and white lupine. Closer observation, and a bit later in the month, other wonders have appeared, like orange globemallow, lovely and ephemeral Sagebrush Mariposa Tulip, clumps of pink wild rose, and many more. Check out resources at Washington's Native Plant Society, http://www.wnps.org, including plant lists for each county.

Yarrow

Wild Rose

Orange Globemallow

Sagebrush Mariposa Tulip

April Eco-Gardening Symposium Catered to Local Gardeners

The first annual Columbia Basin Eco-Gardening Symposium was a success by all who attended the half-day event held on April 15th at Big Bend Community College. The effort was jointly sponsored by Grant County Conservation District and the Grant-Adams Counties Master Gardeners. The focus for this year's event was low-water use landscaping, lawns, and drought-tolerant plants. All told, 62 people attended the event. Based on the 60% response from participants, the second annual Columbia Basin Eco-Gardening Symposium is being planned. So, set your schedules for April 23, 2016.

Spring Classes Shape Up Othello Area . . . *By Terry Rice*

Master Gardeners Terry Rice and Linda Crosier have worked closely with Othello Community Schools coordinator Chery Kresge to bring gardening classes to the Othello area. Three classes were taught this spring, including making hypertufa and Mother's Day pots and creating mosaic stepping stones.

Making Hypertufa Pots

Hypertufa is an artificial stone material that is made of several different aggregates and mixed with Portland cement to create pots, planters, stepping stones and more.

It is much lighter than cement but can still withstand harsh weather conditions. It is

Making the pot

primarily used as garden art and is fairly easy to make. The hypertufa mix can be molded around almost any container. The finished results are well suited to succulent plantings.

Finished pot

Mother's Day Pots

The weekend before Mother's Day, an annual potting class was held at Seed Cupboard Nursery near Royal City working with Lisa Villegas. Lisa explained the technique using Thrillers, Fillers and Spillers to create beautiful pots for the home gardener which was demonstrated by Crosier and Rice. Participants left with beautiful arrangements to use as Mother's Day gifts or for their own yards.

Terry Rice, Lisa Villegas, and Linda Crosier demonstrate how to plant with Thrillers, Fillers and Spillers

Mosaic Stepping Stones

A wonderful way to enhance your yard is with one or more mosaic stepping stones. This class has been a favorite for many years, so much so that Linda Crosier and Terry Rice held two sessions in 2015. The leaders chose a design and cut the central piece out of stained glass. After securing this in place students add mosaic pieces to finish out the design.

Birdhouse stepping stone

Addendum to Winter Sowing described in the March 2015 issue of *Grounded*

Grant-Adams Area Master Gardener Terry Rice winter sowed zinnias, dill, basil, delphiniums, rudbekia, petunias, marigolds, and about five varieties of tomatoes shown left in cut-off milk jugs, and most of them survived to be transplanted into the earth in the spring. Winter sowing definitely shows promise here even with our cold winters.

New Turf Pest in WA State . . . *By Todd Murray, WSU Klickitat & Skamania County Extension*

Move over crane flies, Washington State has a new turf pest, the European Chafer (*Rhizotrogus majalis*: Scarabaeidae). A homeowner in SeaTac, WA, just south of Seattle, submitted a large c-shaped grub in association with major damage to the lawn. This was later confirmed by Jenni Cena from the WA State Department of Agriculture.

Turf damage can appear similar to that of European Crane fly. Inspect areas with turf damage for C-shaped scarab larvae. Turf damaged by animals such as raccoon and skunks can also be a sign of infestation (as with crane flies). Adult beetles have been detected in other areas, but no established infestations have been reported.

This is a good year to look for the infestations in lawns because reports of crane fly damage have been the highest in many years. There could be confusion in diagnosing damaged lawns. If you find other lawns infested with European Chafer, please email Todd Murray at tmurray@wsu.edu or call 360.303.2223.

How do you recognize European Chafer and its damage? Visit this website to get a fact sheet to learn more and help you determine whether the grubs you are finding in your lawn sample are European Chafers or another insect larva: http://cru.cahe.wsu.edu/CEPublications/FS078E/FS078E.pdf.

NEW OR REVISED WSU EXTENSION PUBLICATIONS—free except where noted

- **FS160E Using Arborist Wood Chips as a Landscape Mulch (HGS)—NEW** Online Only
  https://pubs.wsu.edu/ListItems.aspx?Keyword=FS160E
- **FS161E Pesticide Ingredient: Acetic Acid/Vinegar (HGS) — NEW** Online Only
  https://pubs.wsu.edu/ListItems.aspx?Keyword=FS161E
- **PNW508 Fertilizing with Biosolids—Revised** Online Only
  https://pubs.wsu.edu/ListItems.aspx?Keyword=PNW508
- **EB0482E Home Lawns—Revised** Online Only
  https://pubs.wsu.edu/ListItems.aspx?Keyword=EB0482E
- **FS046ES Podredumbre por Botrytis en la uva para producción comercial en Washington: Biología y manejo de la enfermedad— NEW** Online Only
  https://pubs.wsu.edu/ListItems.aspx?Keyword=FS046ES
- **FS153E Knotweed Alert—NEW** Online Only
  https://pubs.wsu.edu/ListItems.aspx?Keyword=FS153E
- **EB0419 2015 Crop Protection Guide for Tree Fruits in Washington—Revised-- $9**
- **EM058ES Oídio de la uva para producción commercial en el este de Washington: Biología y manejo de la enfermedad— NEW** Online Only
  https://pubs.wsu.edu/ListItems.aspx?Keyword=EM058ES
- **PNW172S Guardado de vegetales en conserva— NEW** Online Only
  https://pubs.wsu.edu/ListItems.aspx?Keyword=PNW172S
- **EM042ES Evaluación y Manejo del Daño por Frío en los Viñedos de Washington—NEW** Online Only
  https://pubs.wsu.edu/ListItems.aspx?Keyword=EM042ES
- **FS162E Vegetables: Growing Garlic in Home Gardens—NEW** Online Only
  https://pubs.wsu.edu/ListItems.aspx?Keyword=FS162E
- **PNW668 Integrated Management of Downy Brome in Winter Wheat—NEW** Online Only
  https://pubs.wsu.edu/ListItems.aspx?Keyword=PNW668
- **FS163E Rubber Mulch use in Home Landscapes (Home Garden Series) —NEW** Online Only
  https://pubs.wsu.edu/ListItems.aspx?Keyword=FS163E

Cover crops: Not just for fall planting

Did you know that whether you live east or west of the Cascades, you can improve your garden soil while suppressing weeds by growing cover crops? Even in the summer?

WSU Extension offers a series of short factsheets to get your cover crop planting plan in order, come summer or fall. Read them, plan and plant your cover crops, and sit back and relax knowing you're doing your part to build a precious resource – soil – right in your own backyard.

- Methods for Successful Cover Crop Management in Your Home Garden FS119E
- Cover Crops for Home Gardens East of the Cascades FS117e

Check out this website about healthy soils being the basis for healthy food production. Since this is the year of the soil, this is a good forum to see other work being done to improve soil conditions.

- http://www.fao.org/documents/card/en/c/645883cd-ba28-4b16-a7b8-34babbb3c505/

Master Gardener Plant Clinics:

For face-to-face contact, or if you have a plant or insect sample that needs to be identified, please see the Master Gardener volunteers at one of the following plant clinics:

Moses Lake Farmers Market	1st and 3rd Saturdays 2nd and 4th Saturday (at an alternate vendor location at McCosh Park) May-October	8 am - noon	McCosh Park (Dogwood St side), Moses Lake
Grand Coulee Farmers Market	1st Saturdays May-October	9 am - 1 pm	Morrison St across from Safeway, Grand Coulee
Ephrata Farmers Market	1st and 3rd Saturdays June-September	8 am - noon	C St NW between the Courthouse-Bureau of Reclamation Building, downtown Ephrata
Othello Plant Clinic	1st Saturdays June-September	9 am - noon	Lep-Re-Kon Market, 1115 E. Main, Othello
WSU Grant-Adams Extension Office	Mondays April-October, except for August 31st, September 28th, and October 26th	9 am - noon	1525 E. Wheeler Rd, Moses Lake