

### Master Gardener Newsletter



### REFLECTIONS FROM THE GARDEN

Gary Fredricks

JULY 2023 304 COWLITZ WAY, KELSO, WA 98626

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# WSU Gardening Websites mastergardener.wsu.edu/gardening.wsu.edu cowlitz.wsu.edu

HortSense Fact Sheets hortsense.cahnrs.wsu.edu/ PestSense Fact Sheets

pestsense.cahnrs.wsu.edu/

WSU Educational Pubs <a href="http://pubs.wsu.edu">http://pubs.wsu.edu</a>

WSU Cowlitz Co. MGs extension.wsu.edu/cowlitz/mg/

# Master Gardener Foundation

www.cowlitzcomg.com/

Reasonable accommodations will be made for persons with disabilities and special needs who contact the office at least two weeks prior to the event. Extension programs and employment are available to all without discrimination. Evidence of noncompliance may be reported through your local Extension office. Who manages MG programs?

"A comfort zone is a beautiful place – but nothing ever grows there." ~ John Assaraf

A man burst through the doors, pounds his fist on the counter and says, "Who's in charge around here?" It started out as a simple question, but as he was passed from person to person and directed to different offices, his patience wears thin. No one he talked to seem to have the answer to his question and nobody was willing to take action to address his concerns. Now he just wanted to meet the person who could make a decision and give him an answer.

It can be equally confusing with the MG (Washington State University Master Gardeners) program and MGF (Master Gardener Foundation) here in Cowlitz County. Who oversees Master Gardener volunteers?

Washington State University directs the MG program. Guidelines from the MG State Director Jennifer Marquis is handed down to county leadership, provided by the program coordinator in Cowlitz County. They direct MG activities, administer guidelines engaged by the state, determine which local projects should be emphasized and work to support the volunteers. Volunteers must successfully complete training to become a certified MG and be accepted into the MG program. WSU personnel are responsible for directing MG educational programs so that volunteers receive certification, recognition, and protection. A county MG program does not operate financially. It does not have a checking account, authority to spend money on activities, nor raise funds thru donations, sales, or workshop registrations. The MG program does not have a governing Executive Board.

Then there is the Cowlitz County MGF which is a self-governing, non-profit organization, independent from Washington State University. The Executive board and membership develop the guidelines by which they operate. Membership is thru invitation by the organization. The MGF is directed by an executive board. The MGF does manage finances and operates a checking account. The MGF can fundraise thru events such as plant sales. While a MG is encouraged to be a MGF member, it is not required. It is their choice if you want to join this wonderful organization that supports its members and the MG program. A person may be a MGF member without being a MG volunteer.

I know, still seems confusing to know who is in charge when both organizations oversee MG volunteers. Picture two islands with a bridge between them. On one island is the MG Program governed by WSU and the MGF on the other island. The MG program determines which programs the volunteers will get emphasis. If funding is needed to administer a MG program, leadership will have to cross over the bridge to request funding from the MGF for the event. The MGF Executive Board makes the decision to support or withhold funding for the event. If funding is approved, then the MG leadership returns to its island to manage the event. MGF can hold its own events.

Hopefully, this provides some clarity to these equally important organizations. Each has an important role to fulfill with success or failure in one organization critically impacting the other. Please contact me or your state MG director with questions.

### **Announcements**

#### **Plant and Insect Clinic is open!**

In-clinic visits, calls, and emails. In office April-Oct: MWF, Nov-March: Wed. only, 10-noon. 360-577-3014 Ext. 1

All of our workshops-with slides, handouts, and videos: <a href="mailto:cowlitzcomg.com/workshops-videos">cowlitzcomg.com/workshops-videos</a>

#### In this issue

If you enjoy the MG articles below, PLEASE LET THE AUTHOR KNOW!

- ♦ Reflections from the Garden Gary Fredricks
- **♦ Foundation news** Art Fuller
- MG Reporting: Cougar Cottage Jerry W
- Dreadful Growcoons! Nancy Andrews
- **♦ MG Reporting: Double Digging Carolyn W**
- **♦ MG Reporting: Wildfire Protection Alice S**
- **♦ MG Reporting: Herbicide Drift Alice S**
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- **♦ Thank-Yous from Raised Bed Recipients**
- ◆ E-Bike For Sale Doug M
- **♦ Foundation Mtg. Minutes**

### Log your Volunteer Hours



wsu.givepulse.com/group/453100-WSU-Cowlitz-County-Master-Gardeners

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### - Article Opportunity -

If you specialize in a specific type of gardening, then why not share your knowledge by writing a short article for the newsletter? It's a great way to contribute, and help inspire fellow gardeners. Not to mention that the time spent writing can be turned in as volunteer hours!

If you have an article you'd like to share, please email them to: Alice Slusher: alslush@gmail.com

Articles for August issue due August 20, 2023

## **Meetings & Event**

### **Foundation Meeting**

August 8, 2023 10 am- ZOOM



MASTER
GARDENER
CALENDAR

Upcoming Workshops
(Tues. 12 pm on Zoom unless otherwise noted)

7/25	Deer and Elk management	Chip Bubl
8/1	Summer Care of Your Lawn	Gary Fredricks
8/8	Start Your Winter Garden	Carolyn Winchell
8/15	Weeds	Jennifer Men- doza
8/22	Harvesting the Garden	Art Fuller
8/29	Seed Saving	Alice Slusher

# **Master Gardener**

# **Directory**

On members' page of website

cowlitzcomg.com/public-events

### **Foundation Announcements**

### **Art Fuller (Master Gardener Foundation of Cowlitz County, President)**

Summer has definitely hit us with lots of heat. Watering becomes a huge challenge during the summer months ensuring our gardens are getting enough. Make sure you know whether your soil retains the moisture or the water drains through. This is a main factor in figuring out how often to water your plants. Remember, sandy soils retain less water and require more watering than clay soils. When checking for soil moisture go down a couple inches to check don't just look at the surface area. Less, slow, deep and long watering is much better than short, shallow and quick watering. The water needs to reach the roots. Taking the time to install drip irrigation saves water by just watering the plant area and minimizes time by not having to hand water. This is a win, win, situation for a gardener.

On another note, our Foundation has had a few changes. If you happen to run into the following volunteers, take the time to thank them:

Roxanne Nakamura for her time she has spent volunteering as Cougar Cottage Demonstration Garden Chairperson and as a Cowlitz County State Foundation Representative team member to the Master Gardener Foundation of Washington State assisting Patricia Bosh.



Mardell Pettit for her time she spent volunteering as Greenhouse Chairperson assisting Connie Haas in managing our very successful greenhouse operation.

Thank you, Roxanne and Mardell, you are both greatly appreciated for all your dedication and time.

As people step down, luckily, there are people who step up to fill positions. Please congratulate and thank the following volunteers for filling the vacant positions:

**Michele Thomas**: Michele was born and raised in Portland OR, went to Oregon State University studying Ecology for two years when bad allergies changed her career path. But allergies didn't stop her from gardening. She has been an organic gardener since she was a toddler as both her father and mother were organic gardeners. Over the years she has grown just about everything but subtropical plants. She has belonged to several groups, with her longest being the Portland Rose Society and Master Gardeners, both over twenty years. She got her first rose bush for her third birthday, started planting annuals and vegetables from seed when she was four, but didn't start growing perennials from seed until she purchased her home in Portland in 1987. In 1989 she put her first rose bed in. She has done speak-



ing engagements on roses for MG training for years, she also did a talk on Victorian Gardens for the Daughters of the American Revolution, Container Gardening for Seniors in Independent Living, Her current projects are Black Tail Deer Resistant Plants which she is still developing the plant list for, and working as co-chair for the Friends of Library Rose Garden.



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Plants which she is still developing the plant list for, and working as co-chair for the Friends of Library Rose Garden.

**Amy Norquist:** Amy spent 25 years in various leadership positions with environmental non-profits. In 2007, she founded and was President/CEO of NYC's first green roof/green wall company until 2018. The company designed and installed over 1M square feet of green space—primarily with native drought tolerant, Mediterranean, and high alpine plants--on the roof tops of NY and California.



Mardell Pettit: Mardell decided to step down from the greenhouse chair due to still working fulltime, not being able to commit the time needed to succeed in the chair position putting more of a load on her good friend, Connie Haas. Mardell wanted to still stay engaged within our Foundation and decided with her catering background she would be able to fulfill the newly created Hospitality Chair position. She felt this position would allow her the time to stay fully engaged while she still worked full time.



The staples of our Communication Team have been Nancy Andrews, Alice Slusher and Cindy Castillo. If you get the opportunity please thank **Sara Birch**, **Jan Heaton**, **Rae Davenport**, **Holly Krieger and Kristen Buchanan** for joining the Communication Team this year lightening the load on Nancy and Alice and assisting taking this team to new levels.











Thank you, Michele, Amy, Mardell, Sara, Jan, Rae, Holly and Kristen you are greatly appreciated.

The new Demonstration Garden at the Extension Office chair position is still open if anyone is interested, please either call or email me.

Thank you for all you do.

Art Fuller Master Gardener Foundation of Cowlitz County, President



## MGs reporting: Cougar Cottage

# It's the New Cougar Cottage! Well-almost...

Wednesday PM June 28<sup>th</sup> Doug Moffat called me and said, "Phyllis is really going to be bummed out..." A tree had fallen on the arbor and the house roof at Cougar Cottage. I stopped by and--sure enough—well, you can see the pictures. Thursday AM Rhonda, Roman, Devin (my grandson) and I attacked the mess with ropes and chainsaws. Soon Jenny, Carolyn, Jane, Trisha, Wanda, Charlene, Dean, Patti and Phyllis came by and "Poof!" Cougar Cottage emerged again from under the branches. In the process the kiwi got a haircut because it didn't want to let loose of some of the branches of the mulberry tree! All said and done—we lucked out because Cougar Cottage and even the Kiwi Arbor were undamaged. Thanks everybody! Too bad we couldn't have harvested all those mulberries we shoveled off of the driveway!

Jerry Winchell



### MGs reporting: New problem: Growcoons

#### From Nancy Andrews:

Have you experienced annuals purchased from a retailer starting to wilt and die 4-6 weeks after purchasing them despite regular watering and fertilizing? I purchased annuals from a chain store back in May and potted up several hanging baskets. Inoticed that several of the annuals started turning brown and looked like they were dying. Upon pulling them out of the pots, I discovered root mesh strangling the roots. These little "baskets" around the roots are being used like cocoons to make it easier for growers to transplant and transport plants to retailers. It would be interesting to know if others have had trouble with plants and have discovered these little thingamajigs strangling the plants' root systems.

These are called Growcoons (<u>more info</u>). The website states that they are completely biodegradable, but that has not been my experience, nor have others who have commented on Facebook about them.

We sent an email inquiry to Growcoon, but haven't received a response yet.



Check plants that aren't doing well, check their roots. If Growcoons are a problem, contact the vendor who sold them to you.



### MG Reporting: Double Digging Experiment

By Carolyn Winchell

This year we decided to experiment with three different methods of ground preparation for vegetable planting: single-dig, double-dig, and no-till garden preparation. We're using one of our vegetable beds in the Demo Garden for that purpose. We decided that we wanted to know which method works most successfully for home gardens.

Single-dig or tilling has been used for generations. In the sense we are using it, single-dig just means digging/loosening the soil one shovel's depth.

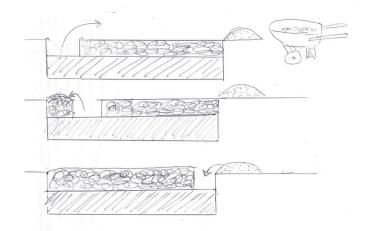
Double dig (sometimes called French Intensive Gardening or other names) has been practiced for hundreds of years by Gallic market gardeners near Paris. Alan Chadwick imported this method to the United States in 1967 and dubbed it "double-digging."

The Double-dig method involves more work. First plan out a garden bed, then turn and chop (or discard) any sod. Starting at one side of the garden bed, dig a trench about 12 inches deep (about one shovel's depth) across the bed. Place this soil into a wheelbarrow or bucket. Next, use a garden fork to loosen the soil in the bottom of this trench another twelve inches or so all across the bottom of this trench. After completing the trench, dig a row of soil next to the first trench and place each shovelful into the empty space in the first trench. Then loosen the soil in the bottom of the second trench as described above. Repeat this process until the entire bed has been completely double-dug. After completely doubledigging the entire bed, take the soil in the wheelbarrow/ bucket and place it as the top layer of the soil on the last area dug. This process only needs to be done every seven years or so.

In our garden we added a no-till bed to the experiment. We have chosen to use the Direct Seeding variety of Notill farming. This cuts the plants growing above ground and leaves the plant residue on the surface and plants the seed or plant via a slit in the ground or inserting the plants into the ground without tilling the rest of the soil. In our bed we had already harvested the potatoes that grew there last year (and volunteered this year) and we didn't leave any above-ground vegetable crop left-overs. Harvesting the potatoes loosened the soil somewhat. A repeat next year should yield a somewhat better comparison if the vegetable detritus from this year's crop is left in the ground and on the surface of our no-till bed. In each of the beds we dug a hole just big enough to place the corn which we had started in 3 ½ inch pots in a greenhouse two weeks earlier.

We fertilized all the beds equally with organic fertilizer and mulched them equally. Water will be applied at the same time in all beds with a drip irrigation system.

A limitation for all beds is that they are somewhat shaded by nearby trees. A specific "Back



limitation for a no-till bed is that this is the first year the bed has been treated as a no-till bed which does not allow for the ongoing buildup of vegetable matter, mulch in the soil, or additional mycorrhizal buildup. An additional limitation is that we may be unable to accurately measure yield due the ongoing theft that occurs in the garden. For this reason, our means of comparison will be the height of the corn plants at the end of the season.

Because double-dug bed provides the largest amount of loose soil for root development we hypothesize that t will yield taller corn than the single-dug bed and that the notill bed will yield less height than the single-dug bed. Come watch our experiment's progress as the summer continues.

Since tilling helps with weed suppression in conventional farming methods large amounts of selective herbicides are used. In organic no-till farming, crop rotation and/or a cover crop will likely be used to suppress weeds. I am assuming that a heavy mulch could also be used for a weed-suppression method. The vegetable detritus from the previous crops if used as a mulch can also help protect the young seedlings.

No-till agriculture or till-less agriculture involves only making a slit where the seeds are planted or a hole where the plant is planted with no digging

No-till methods reduce the time and labor required, the need for fertilizers, improves soil-aggregate formation, helps with water retention, improves microbial and invertebrate interactions in the soil, fosters carbon sequestration, helps reduce soil erosion, aids in water retention, and makes it possible to farm land even at a 15% slope. Certain crops are particularly suited to no-till agriculture such as corn, cow peas, and soybeans. A variant of no-till would be permaculture.

We put the same amount of arborist wood chips on the surface of our beds. We may add more as we have more available. We also used the same amount of organic fertilizer on all areas. We planted Latte (F1) corn (an early synergistic bicolor.) We also chose to plant the corn



### MG Reporting: Double Digging Experiment (continued)

(started in the greenhouse on June 8<sup>th</sup>) in triangles since it has been demonstrated that a triangle planting pattern in a raised bed can allow about 1/3 more of a crop to be planted. to Eden "a documentary about Paul Gautschi's permaculture method talks about using arborist wood chips as a method for creating soil fertility, moisture conservation, and soil regeneration. He finds that in Squim, WA (where they average 15 inches of rain a year) he does not need to water his garden or trees.

https://www.backtoedenfilm.com/ watchfreeorganicgardeningmovie.html OR

#### https://www.youtube.com/watch?v=OiGof48XVCQ

Several years ago, one of our Master Gardeners, Jon Griffin, used this method at the Cougar Cottage garden. Linda Chalker-Scott PhD from WSU has listed some additional advantages of no-till gardening.

"With a 'No-till' organic approach, you won't disturb the macro-fauna that resides in the soils, beneficial spiders and those things are going to help with pest insects.

In a "no-till" approach, you don't destroy the mycorrhizal networks.:

#### Dr. Lee Reich, PhD says:

- 1. Do not till or turn the soil (which keeps weed seeds buried and dormant, causes better water use, preserves humus. Less labor.)
- 2. Set aside separate and permanent areas for traffic and for plants which avoids soil compaction, and creates more production.
- 3. Cover the ground with a weed-free, organic material which should be replenished as needed. These smothers weed seedlings and protects the surface from sun and rain.
- 4.Use drip irrigation if watering is needed."

Reich says when you are beginning this method to:

"Cover area with wetted paper (not carboard), four sheet or more overlapped thickness, avoiding colored inks if possible.

"Cover the paper with about two inches of weed-free organic materials."

He suggests to maintain your garden:

"Fertilize, if necessary, spreading the fertilizer on the surface.

"Keep the ground covered with some weedfree organic material

"Use one inch of compost in vegetable planting beds

"Cover crops are another possibility.

Flower bed mulches can be: buckwheat hulls,

wood chips, sawdust, etc.

"In paths use any nutrient-poor, weed-free covering such as wood chips, lawn, straw.

"Clean up weeds and spent plants. Minimize soil disturbance by removing only stems and large roots. "Weed on a regular basis removing tops and only large roots of large weeds.

"Use a sharp hoe with a flat blade run just beneath soil surface for small weeds. Household vinegar with 1 T detergent +2 T canola oil per gallon may be used."

So, there you have it. Come watch our experiment progress as the summer continues.







### MG Reporting: Protecting Your Home From Wildfire

By Alice Slusher

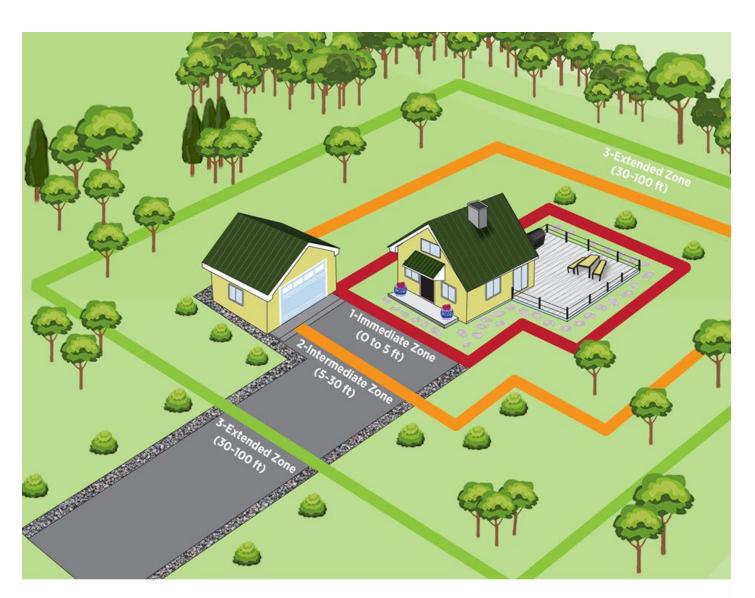
Protecting your home from wildfire danger is crucial, especially in the Pacific Northwest (PNW) region where wildfires are a significant risk. Here are some steps you can take to help safeguard your home:

- Create a defensible space by clearing flammable materials within 30 feet of your home. Maintain a minimum 30-foot space between your home and any vegetation, including trees, shrubs, and grass. Within this zone, keep the grass mowed short and remove dead plants, leaves, and branches regularly.
- **Use fire-resistant building materials for construction and renovation.** These include non-combustible roofing materials (metal, tile), siding made of stucco, metal, or fiber cement, and double-paned or tempered glass windows.
- **Regularly clean gutters and remove debris from roofs**. Remove dry leaves, pine needles, and other debris that could serve as fuel for a fire. Additionally, remove dead branches and leaves from your roof.
- **Install spark arrestors on chimneys, stovepipes, and vents**. This will help to prevent embers from entering your home.
- **Select fire-resistant plants and maintain proper landscaping.** Maintain them properly: trim trees regularly to remove any overhanging branches close to your home. Keep grasses and weeds short and well-watered, particularly during dry seasons.
- **Establish a water source accessible to firefighters.** Install an outdoor water supply, such as a well, pond, or swimming pool, that firefighters can use during an emergency. Keep a garden hose long enough to reach all areas of your property.
- **Keep propane tanks and other flammable materials away from your home.** If you have propane tanks, ensure they are properly anchored and clear vegetation around them. Store firewood and other flammable materials at least 30 feet away from your home.
- **Install ember-resistant vents and screens in vulnerable areas.** Use ember-resistant vents and screens for attic openings, crawl spaces, and other vulnerable areas to prevent embers from entering your home.
- Prepare a wildfire emergency kit with essential supplies. The kit should include first aid supplies, non-perishable food, water, batteries, flashlights, and a battery-powered radio. Keep this kit easily accessible in case of evacuation.
- Stay informed, develop an evacuation plan, and have multiple escape routes. Stay updated on local fire conditions through reputable sources like local authorities or the National Weather Service. Develop an evacuation plan and ensure all family members understand it. Identify multiple escape routes and have a designated meeting point outside your neighborhood.

Remember, these steps are general guidelines. It's essential to consult with local fire officials or wildfire prevention agencies to get specific recommendations tailored to your area's conditions and regulations. Stay vigilant and take early action to minimize the risks associated with wildfires.



# MG Reporting: Protecting Your Home From Wildfire (continued)



#### 1 - Immediate Zone (0 to 5 ft):

Install noncombustible ground cover. Use fire-resistant or noncombustible materials for decks, porches, railings, or fences that attach to the home.

#### 2 - Intermediate Zone (5-30 ft):

Plant trees no closer than 30 feet to the home. Space tree crowns 18 feet apart or further on slopes. Trim branches up to 6 to 10 feet from ground and at least 10 feet from structures.

https://basc.pnnl.gov/resource-guides/defensible-space-protection-against-wildfires

#### 3 - Extended Zone (30-100 ft):

Remove vegetation next to outbuildings. For trees 30 to 60 ft from the home, space so mature canopies are at least 12 feet apart; for 60 to 100 feet from the home, space so tree canopies are at least 6 feet apart.



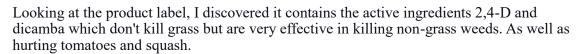
# MGs reporting: Invisible Menace: Herbicide Drift Lurking in Your Garden

By Alice Slusher

About a week ago, I visited my garden to admire my beautiful tomato and squash plants. I was devastated! All the new growth was twisty and stunted. On closer observation, some leaves were oddly shaped, cupped inward at their edges, and flat and "strappy" looking (think strapping tape). Has anyone else seen that on their plants? Several people have come into our Plant Clinic with similar problems...and similar backstories.

Is it a disease? Nope. It's herbicide damage. My garden is toast this summer.

I extracted a confession without pointing fingers or screaming at the weed-hating person I live with (He Who Shall Not Be Named). He finally admitted to spraying a well-known lawn weed killer all over our backyard, with an especially enthusiastic application along the weedy edge of the wire garden fence.



Herbicide drift is a real thing. Even though the garden plants were not directly sprayed, the herbicide vaporized and drifted into my garden, bathing the plants in a toxic mist. Luckily, we live out in the boonies, so no nearby neighbors' plants were affected by it. Good thing, too. By law, whoever does the spraying is liable for any damage caused. If you live in a neighborhood, you may never use herbicides, but your neighbor two doors down might be. It might be a few days to two weeks before damage is apparent.

Several things can be done to minimize the chance of herbicide drift. First, read the label.

It's there for a reason. You will find toxicity, environmental hazard, and disposal information; weeds controlled, protective clothing, how much to use, etc., and you'll see specific information to reduce the chance of damage to non-target plants. Here are the general guidelines.

- 1. Adjust the applicator spray so it's droplets, not a fine mist. Drops are heavier, more likely to fall to the ground, and less likely to vaporize. Direct the spray toward the ground and directly on the weed. Use a low-pressure setting when spraying.
- 2. Don't spray when it's breezy. It's okay to spray with a gentle breeze between 2-10 mph, but be sensitive to the wind direction! Surprisingly, very calm conditions can increase the risk of drift, even without strong wind. Typically, when there are clear skies and no wind at night, an inversion occurs the next morning.
  - Don't spray when the temperature is above 74° or in low humidity conditions. There is a greater chance of the herbicide vaporizing into the air.

But what about my poor tomato and squash plants? They might recover and not show any outward signs of damage. But is it safe to eat if they produce fruit (and it's a big "if" now)? This is an often-asked question with no easy answer. The residual chemicals in the leaves and fruit would be very low. However, food crops were not listed on the product label, so eating the fruit from any affected plant is not a good idea. I'm not willing to take that chance...are you? Fortunately, I have a lot of Master Gardener friends who may be willing to share a small part of their harvest with me.

If you'd like more information about using pesticides (an herbicide is a pesticide), check out the pesticide products tab on the National Pesticide Information Center (NPIC) website.







# **MG** Reporting: Grape Cuttings

By Trisha Bonipace







### **Thank-Yous From Raised Bed Recipients**







From Rochelle Fassold
Hi, thank you! It's going pretty good so far I think

From Jan Damschen
Thank you Gary! We are learning a lot this year
that we didn't know last year. We are grateful
to have been selected. Some of this years
progress...

### REMINDER:

If you would like to use the <u>Extension Office Conference Room</u>, you must reserve it ahead of time with the administrative assistant, Stephanie.

The MGs are only one of the Extension groups that use the room. Thanks!



# MGs reporting: E-Bike for Sale

Do you deserve a new toy?!

Doug Moffett is selling a new, unused foldable electric bike with helmet. It is fully assembled.

He paid over \$1000 and is asking \$800.

See details: <a href="https://lectricebikes.com/collections/xp-2-0-series">https://lectricebikes.com/collections/xp-2-0-series</a>

## 





### July 11, 2023 Meeting Minutes



#### **Cowlitz County Master Gardener 2023 Foundation Board President WSU Extension Coordinator: Gary Fredricks Art Fuller** 1) MG Training 2) Facilitation 3) Volunteer hours 4) Program oversight Vice President Secretary **Past President** Treasurer State Board Rep. **Dale Wheeler Gail Wells** Jerry Winchell Jen Swanson **Patricia Bosh Program Director: PIC Program Director: Fund Raising Cheryl Coddington Program Director: Education** 2) Longview FM - Phyllis Collins Sara Clark Earth Day -Fair -Home and Garden - Gary Fredricks Hospitality Chair-Composting -Jenny Sorensen **Mardell Pettit** Home VEG -Mason Bees -Billie Bevers Vermi-composting -Jenny Sorensen Program Director: Communication **Program Director: Gardens Nancy Andrews** Flower Arrangement -Sue Fardell Awards - Gary Fredricks Demo Garden Chair—Carolyn Winchell Junior Gardening -Patricia Bosh, Grape Pruning -Art Fuller Cougar Cottage Chair—Michele Thomas Website: Alice Slusher Facebook: Cindy Castillo, Sara Birch, Tree Pruning - Art Fuller JDC Greenhouse Chairs-Connie Haas/Amy LCC Stem night -Lori Martinson **Holly Krieger Norquist** Mt. St. Helens Native Garden Chair- Wendy Hypertufa - Phyllis Collins CRReader column Alice Slusher Soil Class - Art Fuller Graphics, Weekly email: Kristen Buchanan Santiago **Foundation Officer**

**Program Chair**