



GROUND

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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@ad.wsu.edu

Editor's Note: the focus of this issue is on gardening opportunities during these challenging times.

Did you Know It's Not Too Late to Plant a Garden in June . . . *By Diane Escure*

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GARDENING RESOURCES

We may all think that growing your own vegetables produces the best tasting vegetables; and, according to the Washington State University Extension (WSUE) office, that is certainly true in many cases. If you haven't already started, there's still time in June or later to plant a garden in the Columbia Basin for many vegetables and even to plant several successive crops. Some like spinach, onions, peas, broccoli, cabbage, and lettuce planted from seed prefer an earlier start in the spring when the weather is cooler, and for some of them with a short growing season, you can sow them in the ground in early fall for later fall harvest.

Do you wonder how much of what you plant you'll be able to pick on average at harvest?

If you're wondering about the quality of the produce you grow versus what you can buy in the stores and their differences in cost, WSUE has also identified which crops are superior to those you find in the stores in terms of quality and relative price.

For home-grown vegetables that are considered far superior in food quality to the store-bought versions, consider planting corn, edamame, Swiss chard, green onions, peas, summer squash, and tomatoes. Vegetables that are somewhat superior to their store-bought versions include green beans, beets, broccoli, Brussels sprouts, carrots, collards, cucumber, eggplant, kale, leeks, leaf lettuce, peppers, rhubarb, and spinach. Those that indicate little difference in quality between the home-grown and store-bought versions are bok choy, cabbage, cauliflower, celery, kohlrabi, cantaloupe, parsnips, potatoes, pumpkins, radishes, turnips, and watermelon.

As for cost savings regarding what you grow versus the cost at the stores you get the best return on your money when you grow your own asparagus, broccoli, Brussel sprouts, cauliflower, cucumbers, edamame, eggplant, kale, leeks, green onions, peas, peppers, rhubarb, summer squash, and tomatoes. Those that still beat the prices at the stores include green beans, bok choy, carrots, celery, Swiss chard, kohlrabi, cantaloupe, parsnips, radishes, spinach, and turnips.

A summary chart below provided by WSUE gives you an idea of how many plants you could grow, the quantity of produce it could yield, and on average how many pounds of each type of produce is consumed per adult per year.

Home-grown Vegetable Productivity and Consumption for Crops Commonly Grown in Washington					
Plants per 10-ft Row		Production per 10-ft Row (lb/amount)	Average Pounds/Vegetable Consumed per Adult per Year		
			Fresh	Processed	Total
Asparagus	10	5-8	10	10	20
Bean, Green	35	6-8	15	25	40
Beet	50	10-12	3	4	7
Broccoli	10	10-12	5	6	11
Brussels Sprout	10	6-8	3	0	3
Cabbage	8	10-15	10	10	20
Carrot	60-80	12	8	8	16
Cauliflower	9	8-10	6	9	15
Celery	20	15	5	0	5
Chard, Swiss	20	30	3	5	8
Corn, Sweet	20	36 ears	17	33	50
Cucumber	5	24-36	6	12	18
Eggplant	5	15	2	3	5
Kohlrabi	30	7-8	4	2	6
Lettuce, Head	10	10	5	0	5
Lettuce, Leaf	30-60	5	5	0	5
Muskmelon (cantaloupe)	3	10-15	5	0	5
Onion, Bulb	40	10	10	0	10
Onion, Green	60-80	2	2	0	2
Parsnip	40	10-15	5	0	5
Pea	60-100	10-12	5	8	13
Pepper	6	20	3	7	10
Potato	10	20	70	0	70
Pumpkin	3	10	10	10	20
Radish	100-200	3	1	0	1
Rhubarb	3	100-200	1	0	1
Spinach	30-40	5	3	5	8
Squash, Summer	3	25	7	10	17
Squash, Winter	2	20-30	20	20	40
Tomato	8	30-50	35	50	85
Turnip	30-40	20	3	0	3
Watermelon	3	6-12	10	0	10

If you're new to vegetable gardening and need some advice, stop by one of the Master Gardener plant clinics at your local Farmer's Market during the summer. We're here to help answer your questions.

Or visit the WSUE website at <http://county.wsu.edu/grant-adams/gardening/> for further vegetable gardening information. WSUE (Home Vegetable Gardening in Washington-BulletinEM057E)

My Straw Bale Garden . . . By Duane Pitts

I saw a copy of Joel Karsten's book in an advertisement on growing a garden with straw bales, and I thought, "Why not?" I ordered it (though I also depend on WSU extension references too).

I liked what I read and decided to start small with two bales. I decided to grow potatoes using this method. In the past, I had grown tired of brushing dirt off potatoes once I dug them up. In addition, using my conventional method, I would all too often cut them in half while shoveling up a hill and then spend considerable time washing off dirt before cooking them. Too much work. I like less work, and the straw bales (I hoped) will provide that.

After reading and following guidance from both Karsten's book "*Straw Bale Gardens Complete*," two WSU Extension sheets on straw bale gardening, and a PowerPoint presentation by Morrissey listed in the references below, I was set to go.

On April 7, 2020, I purchased two straw bales from a local farm and feed supply store. I set them atop a small raised bed in my garden which, I reasoned, would not require plastic sheeting on regular soil or lawn to keep weeds from growing up into the bales. I made sure the blue baling twine was facing outward, not down on the ground to help hold the bales together as long as possible.

The bale rested overnight in the garden, as I read how to prepare them.

I followed Karsten's preparation schedule for the bales before planting in them. Of course, you can use the preparation schedule provided in the WSU Extension Fact Sheet FS 109E. On April 8, 2020, I began Day 1 preparation.

- Days 1, 3, and 5: I added ½ cup of 10-10-10 fertilizer per bale and watered thoroughly.
- Days 2, 4, and 6: I skipped the fertilizer but thoroughly watered the two bales.
- Days 7, 8, and 9: I added ¼ cup of 10-10-10 fertilizer per bale and watered to saturation.
- Day 10: I added 1 cup of 10-10-10 fertilizer per bale and saturated each bale with water.
- Day 11: I let the bales rest to decompose and heat up.
- Day 12 (April 19): I anchored a soaker hose atop the two bales and dug down into the bale tops about 6-9 inches and planted potatoes (this year, I am experimenting with Rose Finn Apple potatoes), and covered them up with straw. As I dug into the bale tops, I could feel the heat of the decomposition already at work. The nights can get as cold as they wanted, but my potatoes will be warm and growing!



My straw bale garden on April 25, 2020. The green stems sticking through the top center of the straw bale are volunteer wheat, which are routinely removed. Chives are planted to the left end of the bale garden and 5 lingonberries in front of the two bales. Photo: D. Pitts



The blue baling twine is parallel to the ground, the soaker hose is on top, and 2 strawberry plants are in the soil. The dark spots in the straw bales indicate decomposition at work. Slowly, the bales are turning into mulch and soil. Photo: D. Pitts

Now, I anxiously wait for the potatoes to peek out of the straw - any day now. I hope they thrive and prosper.

References:

- Chalker-Scott, Linda. Using Cereal Straw bales in Home Gardens. Washington State University Extension. FS329E. September 2019.
<https://pubs.extension.wsu.edu/using-cereal-straw-bales-in-home-gardens>.
- Desta, Kefyalew and Marianne Ophardt. Straw Bale Gardening. Washington State University Extension Fact Sheet FS109E. 2013.
<https://sjcmastergardeners.files.wordpress.com/2013/03/straw-bale-gardening-fs109e.pdf>
- Karsten, Joel. Straw Bale Gardens Complete. Updated Edition. Quarto Publishing, 2019.
- Morrissey, Sharon. Straw Bale Gardening. Milwaukee County, University of Wisconsin Extension. PowerPoint presentation.
<https://pddc.wisc.edu/wp-content/uploads/sites/39/2016/03/Straw-Bale-Gardening.pdf>.
- Straw Bale Gardening. Benton County Extension. Washington State University.
<https://s3.wp.wsu.edu/uploads/sites/2071/2013/12/Straw-Bale-Gardening.pdf>.

An Easy Way to Grow Lettuce and Other Greens . . . *By Barbara Guiland*

We are in the midst of a pandemic that limits how many times we (of a certain age) can leave the safety of our homes even for trips to the grocery store. What I miss most are fresh greens. Even before Covid-19, I started mine early in a large pot, but about a month ago I ran across a post from a friend of a friend on Facebook who had a great idea for someone who does not ordinarily garden but who would like fresh greens and might enjoy trying to grow their own outside in the fresh air and sunshine. I like easy ways and I think just about anyone could do this after the large bag of potting soil was conveniently placed for them. In our low humidity area, take care not to let your bag dry out but be sure its draining properly too. The soil should be damp but not soaking.

This is how I grow lettuce, radishes and sometimes salad onions.

- With a large- sized bag of commercial potting soil, poke several drainage holes in one side.
- Turn it over onto whatever surface you plan to keep it on.
- Wipe the bag clean then put a row of duct tape around the outer edges. This helps keep the bag from stretching out.
- Cut around the inside of the duct tape to remove the bag.
- Scoop out some of the potting soil so that the rest is flat. I use a mini muffin pan to mark where my seeds will go. It is a great tool when wanting to space your plants. I use it for spacing carrots in my raised beds, too.
- Put a seed or two in each space then cover with a thin layer of potting soil, water lightly and keep moist until your seedlings appear. This will keep you in lettuce all summer! If you plant radishes in this, it is easy to plant every couple of weeks for continued harvest.



Using a bag of potting soil to start a garden is a relatively easy process. (Anonymous picture credit).

I will use a bag of potting soil for two years then I add it to my raised beds, flower pots, etc., and start a fresh bag for the next two years. I first started doing this to help my dear friend with a garden she could take care of while she convalesced until her health improved. Now, it is a part of my regular gardening routine.

References:

Heilig, Gary, Potting Soils and Seed-Starting Mixes for Your Garden. Michigan State University Extension. March 1, 2013
https://www.canr.msu.edu/news/potting_soils_and_seed_starting_mixes_for_your_garden

Smith, Tina and Doug Cox, Bagged Potting Mixes and Garden Soils for Home Gardeners. The Center for Agriculture and the Environment. University of Massachusetts Amherst Extension. August 3, 2013.

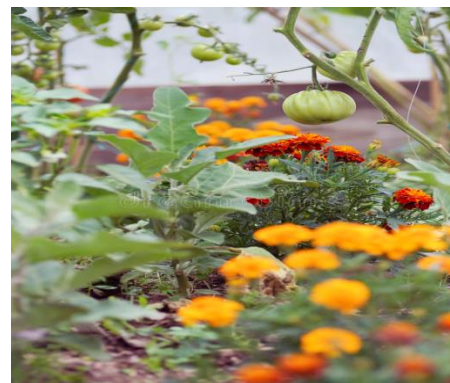
<https://ag.umass.edu/home-lawn-garden/fact-sheets/bagged-potting-mixes-garden-soils-for-home-gardeners>

Companion Vegetables to Plant Together . . . by Duane Pitts

No, companion plants do not date or marry. Sorry. They do, though, appear to benefit each other when planted next to each other.

No, there is no science behind companion planting. Sorry to disappoint. However, much myth, story, and anecdote go back centuries to an agrarian past that no longer exists. This does not mean that companion planting does not work - just that we have no science to prove that it does work.

So it is up to the home gardeners to decide what they would like to place next to each other — either trial and error, or keep what works, or plant by color, or plant a medley by aromas and harvesting dates.



Marigolds and tomatoes Photo: dreamstime.com



Parsley, onion, Swiss chard, kale Photo: dreamstime.com

The following vegetable list compiled from various university extension sites suggests which plants seem to help one another. Test for yourself to find what works well for you and your green thumb. I am doing just that.

The Three Sisters (beans, corn, and squash or pumpkin) date back to the Native Americans long before Europeans came to this continent. Corn would be planted as supports for beans to climb, and squash gave shade to block out weeds. I'm trying this triple-header this year to see how it works for me.

Beets seem to grow well with bush beans, onions, lettuce, and brassicas (cabbage, bokchoy, turnips, Brussels sprouts) as companions. I will try beets and onions - probably more onions than beets.

And what is a garden without carrots? Leeks, onions, rosemary, sage herb and lettuce complement carrots. Since I already have some rosemary in the garden, I know where my carrots will go.

Most people have a few hills of potatoes. Mix in some marigolds or nasturtium for color, summer savory herb, peas, or beans. I have potatoes in soil and straw bales, so marigolds will go with the soil spuds. Sweet pepper and basil go well together as do radishes with cucumbers, lettuce, beans, squash and spinach. Radishes and lettuce sound good to me, as do sweet pepper and basil. And, I have space to grow lots of combinations.

I had an uncle who just loved hot peppers - the hotter, the better. He planted his rows of hot peppers away from the rest of the garden to keep the "heat" or bite at a distance and in the shade for moisture. If you lack space or shade, then these companions seem to work with hot peppers - tomatoes and okra. If you do not have space or shade, then plant hot peppers very close to each other to provide their own shade and moisture. I will have okra, but am not sure I want hot peppers in the garden yet.

Of course, every garden should consider strawberries. Intersperse garlic, onions, lettuce or spinach. If you want herbs instead, then mix in thyme, borage, coriander, caraway, fennel, sage, or mint (in pots so it does not take over the strawberry bed!). I have a few strawberries, and I like thyme - so my plan is complete.

References:

Cartwright, Cindy, compiler. "Cool Season Planting Chart for Companion, Interplanting & Square Foot Gardening." Washington State University, Thurston County Extension. April 2015.

<https://s3.wp.wsu.edu/uploads/sites/2056/2018/10/Cool-Season-Planting-Chart-for-Companion.pdf>

Chalker-Scott, Linda. "The Myth of Companion Plantings." Puyallup Research and Extension Center, Washington State University. 2015. <https://s3.wp.wsu.edu/uploads/sites/403/2015/03/companion-plantings.pdf>

Cornell University Cooperative Extension. Companion Planting. <https://www.slideshare.net/Bakas16w/companion-planting-cornell-university>

Flowerdew, Bob. Bob's Basics: Companion Planting. Skyhorse Publishing, 2012.

<https://www.dreamstime.com> free photos of companion planting

Master Gardeners Eager to Answer Your Question . . . *By Mark Amara*

Master Gardeners have been providing public outreach in Washington State for almost 50 years! The first Master Gardener program began in 1973 by the Washington State University (WSU) Cooperative Extension in the greater Seattle area to meet a high demand for urban horticulture and gardening advice. The program has since grown to offer Master Gardener programs in all 50 states as well as in eight Canadian provinces.

The WSU Master Gardener program came to Grant County in 1982 when four interns were certified after completing rigorous training through the Cooperative Extension office. By the third year of the program, the number of certified Master Gardeners had risen to 32. Numbers have fluctuated over the years because to remain certified, Master Gardeners have to take annual educational training to expand their knowledge and keep current on gardening issues. In addition, Master Gardeners have to annually volunteer in a variety of public outreach activities that support the program.

Currently, there are 24 Master Gardeners and interns here in Grant-Adams Counties under the auspices of the WSU Grant County Extension office to help you with your home gardening questions. The Master Gardeners have been trained by WSU Extension and local industry specialists in subjects such as taxonomy, plant pathology, soil health, entomology, cultural growing requirements, sustainable gardening, nuisance wildlife management, and integrated pest management.

With the new emphasis on staying at or close to home with the new normal conditions and what Washingtonians have been experiencing with the COVID-19 pandemic and associated guidelines, gardening seems to be a more popular activity for individuals and families. The WSU Master Gardeners are eager to help.

How do you find local Master Gardeners? WSU Grant-Adams Master Gardeners are available to answer your questions through a free online service. Our answers are based on using science-based research produced by Washington State University or other university extension programs. Right now, we offer a year-round email helpline: ga.mgvolunteers@wsu.edu. WSU Master Gardeners staff the helpline via email and phone. Individuals may contact us through this medium with questions and can provide digital pictures of their gardening and landscape issues, or send us pictures of plants or insects for identification and control.

Additional information can be accessed by going to:

https://extension.wsu.edu/grant/gardening/master_gardeners/. We are available via phone (509) 754-2011 extension 4313, email (above), and videoconference, when available.

Once the governor's orders are relaxed, we hope that plant clinics at farmers markets or other venues will resume as well as having Master Gardeners available to speak at public events. For the last five years, the WSU Master Gardeners, Master Gardener Foundation of Grant and Adams Counties, and Grant County Conservation District have organized and held an annual eco-gardening symposium. We are planning for the sixth annual event on April 17, 2021.

New Master Gardener Training Registration Open . . . *By Mark Amara*

New Washington State University (WSU) Master Gardener training is scheduled every other year for Grant-Adams Counties. The next session is set to begin in September 2021. However, now is the time for adults to learn about the program and decide if it is right for them.

Certified Master Gardeners are dedicated and committed to becoming volunteer educators for WSU Extension in Grant and Adams Counties. Master Gardeners have the opportunity to expand and extend their horticultural knowledge on all aspects of gardening to the general public, including youth; work as team members to solve gardening challenge; and enjoy the company of other dedicated gardeners. Primary responsibilities include teaching and serving as resources 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, or write for the Master Gardener quarterly newsletter or other news sources. Besides all that, Master Gardeners set good examples, are professional, and are willing to work with 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 about a year 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 three months. After successfully completing this phase of the program, the intern volunteers provide an additional 50+ hours of public outreach, working with one or more mentors the following year. Once completed, certification is granted and is maintained with a minimum of annual training and volunteer time each year thereafter.

Many of the people 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 of us use what is learned in the classes and workshops to change the way we garden and view the natural world and their place in it.

The WSU Grant-Adams Master Gardener website provides a leaflet explaining the program at <https://s3.wp.wsu.edu/uploads/sites/2082/2020/03/0MGBasicTrainingBrochure2021.pdf> , and an application to become a Master Gardener can be found at <https://s3.wp.wsu.edu/uploads/sites/2082/2019/01/MGVolApplication.pdf>.

Virtual Food Drive Supports Food Banks

The Master Gardener Foundation (MGF) of Grant and Adams Counties, a local nonprofit organization, enhances and supplements the efforts of the WSU Master Gardener program by providing financial support, communication, and education to improve horticultural practices and benefit the citizens of our two counties.

MGF understands that many unemployed citizens in our communities are currently struggling to put food on the table due to pandemic-related business closures and unemployment. Through the WSU Grant-Adams Master Gardeners, the MGF helps operate demonstration gardens in Othello, Moses Lake, and Soap Lake;

none of them is currently in food production. However, efforts are made annually to contribute home-grown produce to local food bank and educate people about gardening at plant clinics, through workshops and our annual gardening symposium (cancelled this year).

To help with the unprecedented food needs of the communities that we serve, the Master Gardener Foundation of Grant and Adams Counties recently made financial contributions to all eight food banks in the two-county area because the local need for food is high and donations of food are low. The food drive is part of our effort as an emergency response to the needs caused by COVID 19.

Join the Master Gardener Foundation as a supporting member

The Grant-Adams Master Gardener Foundation is a nonprofit organization whose primary purpose is to raise funds to support the Grant-Adams Master Gardener Program. You do not need to be a Master Gardener to be a member, and joining does not confer Master Gardener status.

The Foundation is a separate and distinct organization from the Master Gardener program. It supports the Washington State University (WSU) Extension Master Gardener Program of Grant-Adams Counties through financial support, communication, education and advocacy and furthers the mission of the Master Gardener Program in educating the community with research-based horticultural information. The organization also enriches its membership through continuing education and fellowship.

- Quarterly membership meetings that include time to mingle with other gardeners and lectures by notable garden experts.
- Regular e-mail updates on local gardening events and resources.
- Opportunities to learn new skills and contribute to the health of the community.
- Friendships with like-minded people.

What are Foundation Activities?

The Grant-Adams MGF primarily raises funds through plant sales in the spring and holiday community markets several times a year. The Foundation also receives donations from individuals. Money raised by the Foundation supports administration costs of our local WSU master diagnostic clinics in Moses Lake, Quincy, Othello, and Coulee City; demonstration gardens in Soap Lake, Moses Lake, and Othello; an annual Eco-Gardening Symposium open to the public; and on-going Master Gardener training.

Who are Master Gardeners?

As trained and certified members of a volunteer program sponsored by Washington State University Extension, Master Gardeners assist the WSU Extension in providing information to home gardeners about sound and sustainable gardening practices. This includes integrated pest management, efficient watering technologies, recycling of garden wastes, and cultural methods for preventing and treating plant disease.

Foundation Membership

Membership is for a calendar year, January-December.

Dues: • Individual - \$20 • Couple - \$40 • Business or corporate members - \$100 for the year

By becoming a member, you become part of a network that encourages sustainable gardening and promotes environmental stewardship practices, thereby improving quality of life for Grant-Adams residents.



Master Gardener Foundation

of Grant-Adams Counties
1525 E. Wheeler Rd. Moses Lake, WA 98837 509-754-2011, Ext 4313

Application for Foundation Membership

I wish to join the Master Gardener Foundation of Grant-Adams Counties. I understand my duties as a member of the Master Gardener Foundation are separate from my obligation to the WSU Extension Master Gardener Program in my county and that membership in the Master Gardener Foundation is not required for my participation as a local Master Gardener Volunteer. Foundation members will be expected to support the mission of the Foundation and follow its by-laws. Note: No dues are required for active WSU Grant-Adams Master Gardeners to join the foundation.

Date: _____

Print Name: _____

Address: _____

Phone: _____ email: _____

I have experience, training, special knowledge or talent that may be a resource to the Foundation.
For example: nonprofit fund raising, marketing, technology, artistic ability, grant writing, photography, graphic arts,

I am a current Master Gardener or intern: Yes_____ No _____

May we publish your name in the membership list for Foundation business? Yes___ No___

Signature:_____

Return application to:

Master Gardener Foundation of Grant-Adams Counties
PO Box 1438
Ephrata, WA 98823

Gardener Resources Available to All

“Food security is a growing concern across our state,” says Jennifer Marquis, Washington State University Master Gardener Program Leader. “Demonstration gardens are commonly used as outdoor classrooms to teach sustainable, best gardening practices with food gardening education as a component of the education offered. Hands-on workshops and classes held in demonstration gardens provide community members with practical, science-based information on how to be successful in growing their own fruits and vegetables. Food raised in the beds used for teaching supports food security and the health and wellness of Washington residents.”

Currently, it is difficult to do much hands-on teaching to the numbers of participants that there used to be in the near future due to restrictions on group sizes imposed by the Governor’s orders to minimize close contacts as a result of the COVID-19 pandemic. However, a Master Gardener program is being developed to build a statewide video library of gardening activities that will be available to the public. Once the materials are assembled, they will be publicly announced so the maximum number of people can view them.

In the meantime, there are lots of printed materials that are can be looked at and printed for anyone who wants to learn the best ways to garden productively. With the emphasis on staying home, individuals and families can take advantage of a wealth of resources to help grow your own food and not have to rely on the grocery store as much.

A few examples are:

- Seed Starting. C104 Washington State University Master Gardener Program. Spokane County Extension. <https://s3.wp.wsu.edu/uploads/sites/2076/2017/07/C104-Seed-Starting-14a.pdf>
- Vegetables: Growing Tomatoes in Home Gardens. Washington State University Extension Fact Sheet FS145E. <https://s3.wp.wsu.edu/uploads/sites/2070/2019/09/FS145E.pdf>
- Inland Northwest Vegetable Gardening. Washington State University. Walla Walla County Extension Bulletin # 228. 2005. Author: Tonie Fitzgerald. <https://s3.wp.wsu.edu/uploads/sites/2070/2013/07/INW-Vegetable-Gardening.pdf>
- Container Gardening. Washington State University Extension Master Gardener Program. Puget Sound Gardening Tip Sheet # 6. Updated 12/20/2019. <https://s3.wp.wsu.edu/uploads/sites/2058/2020/01/TS6-Container-Gardening-Dec2019.pdf>
- Preparing Garden Soil. Utah State University Cooperative Extension. Horticulture Fact Sheet 01. Author: Duane Hatch. 1990. https://extension.usu.edu/yardandgarden/ou-files/HG_H_01.pdf
- Gardening in Washington State. Washington State University. Website with dozens of fact sheets on numerous vegetable crops. <http://gardening.wsu.edu/vegetable-gardens/>
- Garden Construction. Washington State University. <http://gardening.wsu.edu/garden-construction/>
- Soils, Compost and Mulch. Washington State University. <http://gardening.wsu.edu/compost-and-mulch/>
- Gardening in Grant and Adams Counties. https://extension.wsu.edu/grant/gardening/master_gardeners/
- Gardeners of all ages can ask questions of the WSU Grant-Adams Master Gardeners through the online plant clinic at: ga.mgvolunteers@wsu.edu.

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