The Gardener's Pen

A Publication of the Oregon Master Gardeners™ Association in Cooperation with OSU Extension Service™

OSU Extension Service Awards

All three winners of **Ask an Expert** awards at OSU Extension this year are bee people. (Left to right) **Anna Ashby** is one of two Master Level Oregon Master Beekeepers, **Andony Melathopoulos** is program lead for OSU's Pollinator Health Program and **Michael O'Loughlin** is on the Advisory Committee of the Oregon Bee Project and Oregon Bee Atlas (and a might good melittologist too). "**Ask an Expert**" is a service of the Cooperative Extension Service and provides timely answers to all of your questions online.

Congratulations to Rich Little who was awarded the prestigious **OSUEA Cooperators Award.** For greater than 10 years, Rich has not only taught hundreds of us on mason bee culture and native bee curation and identification, he also served on the 2015 Legislative Task Force on Pollinator Health and started **BEEvent** (as a Linn County MG), the biggest annual pollinator conference in the PNW. Somehow, he has also been able to teach dozens of entomology courses for OSU MG Program and volunteer at the Oregon State Anthropod Collection. Phew!! **Thanks for all your work, Rich – you are an example to us all!**

Changing of the Guard (newsletter editor)

Since December 2012, I have been sending the Gardener's Pen newsletter to MG's from across the State trying to keep you updated on OMGA/MG news, events, both local and statewide along with educational and information articles, and sometimes, a few fun pages. I appreciated all of the information, articles and positive feedback that you have sent me. It has been a **fun experience** and I actually learned *quite a bit* from researching various topics that, I thought, would be interesting to you and were not on your regular radar. It was challenging sometimes to make the graphics interesting and worth your attention - and yes, my computer skills in that department were raised a notch or two. **Thank you** for being avid readers and supporting the Gardener's Pen newsletter over the past years. What started as a two year commitment, lasted for many enjoyable years. As they say, **time flies when you are having fun!**

At this point, I want to make note of the "**Changing of the Guard**", so to speak and introduce **Renee Taylor** from Central Gorge as the new newsletter editor. Please welcome and support Renee on her new endeavor - the Gardener's Pen.

January 2020

Gardening to Save the World

OMGA™

Inside this issue:

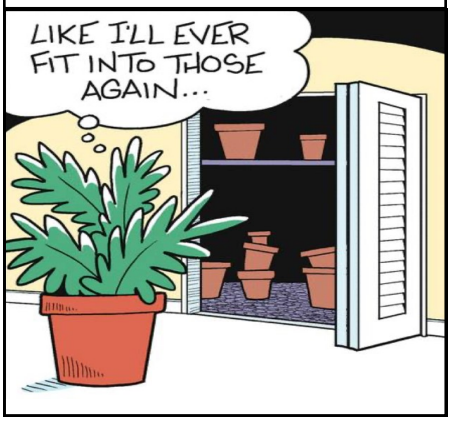
The deadline for the April 2020 issue is:

No later than Mar. 15th, 2020

"Insects and Gardening Pests"

Send your articles to:

GardenersPenNewsletter@gmail.com



from the past President's desk...

...by Eric Bosler, 2020 OMGA Past President, Central Gorge

It was with great pomp and circumstance that, at the culmination of the OMGA election during the 4th quarter Board meeting in Tillamook, I **passed the gavel, crown and scepter to our incoming President, Chris Rusch.** Actually it was not all that formal and we had a great fun with it. My thanks for the lovely parting gift bag. Probably not the best things for my waist line but I'll enjoy sharing them with my wife Shari especially this week as I recoup from knee surgery.

First some housekeeping.

A sincere thank you to the **Tillamook County Master Gardeners** for their generous hospitality as they hosted the OMGA 4th quarter Board meeting, Educational Forum (formerly Leadership) and Treasurer's Workshop. It was great to see the new Extension facility which not only provided comfortable meeting spaces but also accommodated a very successful mini Silent Auction.

All of OMGA's meetings this year were excellent. Marion, Linn, Jackson and Tillamook Counties each put the welcome mat out to the Board and did wonderfully. Also thanks to Linn County for providing us space for the OMGA ExCom meetings.

My heartfelt appreciation to all of the Chapters, their officers and representatives for participating in the business of OMGA. It is through your input, guidance, consent and assistance that OMGA is able to fulfill our mission of supporting you, our members, in your Chapter functions, activities and educational outreach.

I will be expressing my gratitude individually to each of the members of the Executive Committee. Their dedication to the Master Gardener program cannot be matched. Whether an office holder, committee chair, or advisor each role is vital to our mission and each was conducted with diligence and skill. Two people must enjoy my special attention. First is Sue Nesbitt. She is my mentor and confidant and played a pivotal role in any success that I or OMGA enjoyed this year. Second is my wife Shari. Longer a MG than I, it was only because of her commitment of support that I took on the role of OMGA President. Her knowledge and advice were key to what we've achieved this past year.

I'm not going to recap the details of the year. There are minutes, reports, and data to provide those. I do want to touch on one particular issue as it becomes ever more a factor in our work as Master Gardeners. While OMGA and our Chapters remain strong and generally financially stable such is not the case with Extension. Positions go unfilled, job responsibilities are condensed to unreasonable levels, budgets are frozen or diverted, and funding levels continue to shrink. These are conditions that every chapter in Oregon has, is, or will, be experiencing. I cannot begin to count the number of times, as I have traveled around Oregon this year, when I have been asked what amounts to the question, "Does OSU care about the Master Gardener program?"

> *We are in the process of discussing staffing in the Extension Service. The vacancies in Extension are estimated at $2.2 million. We are estimating $500k in available funding. In order to objectively evaluate the needs, we are creating a priority staffing process with the program leaders and regional directors. All priority staffing requests will be considered by the leadership team and recommendations made.*
>
> *There are a great number of needs statewide.*
>
> *Thank you for sharing the criticality of this position.*
>
> *Anita Nina Azarenko, Interim Vice Provost for Outreach/Engagement,*
> *Director of the Extension Service*
> *101 Ballard Hall, Corvallis, OR 97331, P 541-737-2713*

Continued on next page...

cont'd from past President's desk

...by Eric Bosler, Past President, Central Gorge

The challenges are great but I'm very optimistic about the future. The masthead paragraph on the OSU Extension Master Gardener website says:

> *The Oregon State University Master Gardener™ Program is an Oregon State University (OSU) Extension Service program that educates Oregonians about the art and science of growing and caring for plants. This program also facilitates the training of a highly educated corp of volunteers. These volunteers extend sustainable gardening information to their communities through education and outreach programs.*

We do just that and more. Nearly 4000 of us around the state share our passion for horticulture, education and outreach. I sincerely do not believe that there is any other OSU program that provides as much impact, for dollar invested, as does the Master Gardener Program. Every year, through tens of thousands of individual contacts we fondly and enthusiastically do the work we are charged with…making one on one impressions with people in every community around the state that otherwise might have no contact with OSU. This is science, this is education and this is service to our fellow Oregonians.

So my answer to the question…"Does OSU care about the Master Gardener program?"…is: I think it does…I hope so!

Finally…a word about one more person. There is no one I know who has more passion or works harder for the Master Gardener program than **Gail Langellotto**. The work that we do as community volunteers, the education we receive and promote, and the emphasis on science that is the basis of our program, happens in large part due to the dedication, commitment, expertise and passion that Gail brings, every day, to her job. It's been my sincere pleasure to be part of her team.

This has been a wonderful year for me. You've allowed me to serve as your state President and I've shared your highest award. I'm looking forward to 2020 as we restart Mini-College and as we again do our classes, continue our programs and projects, and work with one another on the task that we all love so much…being an Oregon State Master Gardener.

OMGA Retreat: 2020 Goals & Actions *(Draft)*

The following outlines the condensed results of the brainstorming session held at the December OMGA Retreat. The topics were "prioritized" as noted.

***Priority One*:**
Advocate for Extension in general and the Master Gardener Program specifically.
In face of shrinking staffing and funding for OSU Extension *and particularly for the MG program on campus and at the chapter level around the state, OMGA should develop and initiate a program to actively pursue the University leadership and decision makers to reverse the long term trend of eroding support for the MG program*

***Priority Two*:**
OMGA should continue its financial support for "Educational Content."
- Resources that can be used throughout the Master Gardener Program to further our mission of educational outreach. Identification of available educational materials/ information should be undertaken and links for accessing these provided to the Chapters.
- OMGA's Educational Forums (formerly Leadership) should continue to identify topics and provide programs in the same vein.

***Priority Three*:**
Identify and recruit people to take on the tasks/ jobs that need to be done now and in the future.

***Priority Four*:**
Form a working committee to continue developing a better understanding of our "legal" standing.
- How the State of Oregon sees OMGA and the individual Chapters.
- What's the specifics of OSU, OMGA and Chapters with regard to liability insurance/and are there options for coverage.

***Priority Five*:**
Search out ways to enhance membership retention/diversity.

***Non-Prioritized Goals & Actions*:**
- Reach out to the Chapters and ask; "How can we (OMGA) help?
- Outreach: Continue to expand existing goals and actions and search out new avenues of communication.

from the President's desk...

...by Chris Rusch, OMGA President, Douglas County

Thanks to everyone for asking me to be president of this terrific organization – the Oregon Master Gardener Association. I consider it an honor and a privilege to lead us next year. We have many proposed, planned and ongoing projects to work on. I am always amazed by all of the accomplishments of our group. By attending the OMGA meetings in 2019, I learned about the great people that make up our organization and the terrific work that has been carried out by everyone!

We have a lot of work ahead for 2020. This is the time of year to reflect on our past year and to plan for the next year.

- *There are 2 vacant positions that need filling,* ***President-elect*** *and* ***First Vice President****.*
- ***Mini-College for July 2020 to be held at OSU****. This will be a great event for us. If you are interested in helping in organizing or implementing this symposium, please contact your OMGA Executive Committee.*
- ***Chapter hosts are needed*** *for our meetings next year. We offer a stipend to chapters to help with expenses. In 2019 we visited Linn, Marion, Jackson and Tillamook Counties. This is a great opportunity to show off your gardens and your county extension activities.* ***Please consider volunteering your Chapter as a host****.*

On another note, the **Educational Forums** for 2020 are beginning to take shape for 2020.

- *The* ***First Educational Forum will be held March 6th****. It will be devoted to an* ***Orientation for all OMGA Representatives****. We will cover roles and responsibilities, expectations, and answer any questions that you as an OMGA Representative may have. This will also be an opportunity for suggestions to improve our program.*
- *We will not have an Educational Forum in July due to* ***Mini-College****, but will hold a regular Board of Directors meeting prior to it on Thursday afternoon, July 23rd.*
- ***The 3rd Quarter Educational Forum will be September 11th****. This event will focus on* ***Insurance liability for our Chapter organizations****, including the day to day operations as well as events. We will explore the possibility of having the option of an "umbrella policy" through OMGA.*
- *Lastly,* ***4th Quarter Educational Forum*** *will be on* ***November 4th.*** *We are still evaluating some ideas* for *the forum.*

If you have some subject areas you want us to explore let me know. crusch@hughes.net
Make sure to mark your calendars. Everyone is welcome to attend!

I am looking forward to the year ahead and getting to meet with all of our members.

Have a Happy New Year!!

OMGA Mini-College update

OREGON MASTER GARDENER
MINI-COLLEGE EDUCATIONAL CONFERENCE

Where: **CH2N HILL Alumni Center**
Oregon State University

When: Friday & Saturday, July 24th & 25th, 2020

Plans are being made for an outstanding event that will include hands on workshops, lecture classes, tours, time to socialize with old friends and meet new ones and much more.

The events will kick off Thursday evening with a social that can include attending the Corvallis Knights baseball game at Resser Stadium. The stadium is located across the street from the CH2N Alumni Center.

The Friday morning keynote speaker will be **Robert Pyle**. He is founder of the Xerces Society, a non-profit environmental organization that focuses on the conservation of invertebrates considered to be essential to biological diversity and ecosystem health. (See below.)

Regular updates will be posted on the OMGA website: http://www.omga.org. Registration will be available the first part of April.

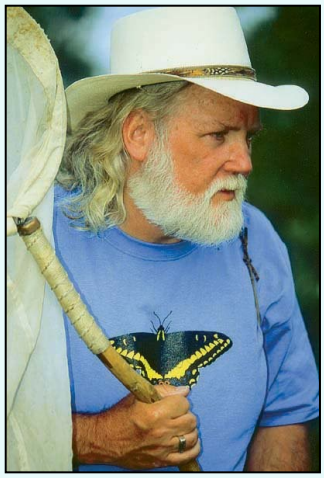
Committee chair people are still needed for the following activities: Silent Auction, the Banquet and Workshops. Please let either Eric Bosler at: ericbosler@hotmail.com or Sue Nesbitt at: sue.nesbitt1231@gmail.com know if you are interested in participating on a committee or have a talent you would like to share.

*So set your **GPS** for Oregon State University for July 24th and 25th for an outstanding educational conference and some great networking with fellow Master Gardeners.*

OREGON MASTER GARDENER MINI-COLLEGE EDUCATIONAL CONFERENCE

is proud to announce our opening session Keynote Speaker!

ROBERT MICHAEL PYLE



Author of 24 books, including *Chasing Monarchs*, *Where Bigfoot Walks* (currently being made into a feature film, *The Dark Divide)*, *Wintergreen* (winner of the John Burroughs Medal), and a flight of butterfly books. A Yale-trained ecologist, Guggenheim Fellow, a lepidopterist and founder of the Xerces Society, he is a full-time writer and biologist living in SW Washington.

Plan now to attend this fun, dynamic, interesting and educational event.

Workshops Lectures Classes Tours

If you've a suggestion for a speaker for Mini College 2020,
please contact: Shari Bosler, sharibosler@hotmail.com

Megachile Bees from Portland-Area Gardens

...by Gail Langellotto, PhD, Statewide MG Coordinator

Every June – August, from 2017-2019, we collected bees from 25 Portland area gardens. As I start to build out a Bee Guide for Portland Gardens, I wanted to highlight some of the notable bees that we collected. We are still waiting for our 2019 bees to be identified. The details, below, are for bees that were collected in 2017 and 2018 and identified by Sarah Kornbluth (2017) or Gabe Foote (2018).
We collected five species of bee in the genus Megachile:

- *Megachile rotundata* (2 females and 1 male)
- *Megachile angelarum* (8 females and 5 males)
- *Megachile perihirta* (1 female)
- *Megachile fidelis* (3 females)
- *Megachile centuncularis* (1 female)

Worldwide, *Megachile* bees are extremely diverse: an estimated 1,400 species of *Megachile* bees can be found, globally and an estimated 140 species of *Megachile* can be found in the United States. These bees are in the Family Megachilidae, which includes the leafcutting (e.g. *Megachile* species), mason (e.g .*Osmia* species), and wool carder bees (e.g. *Anthidium* species). In the family Megachilidae, females carry pollen on their abdomen.

In this post, I wanted to cover *Megachile fidelis*, *Megachile perihirta*, and *Megachile angelarum*.

Bee Species	Origin	Diet	Sociality	Nesting
Megachile angelarum	Native	Generalist (Prefers Lavandula, Perovskia, Vitex)	Solitary	Cavity
Megachile perihirta	Native	Generalist	Solitary	Soil
Megachile fidelis	Native	Generalist (Prefers Asters)	Solitary	Cavity

Megachile angelarum was the most common bee in this genus that we collected from Portland area gardens.

Megachile angelarum female.

Diet: Although this species has been collected from a broad array of floral hosts (see list from Discover Life), Frankie et al. (2014) note that this species prefers lavenders (*Lavendula*), Russian sage (*Perovskia*), and chaste tree (*Vitex*).

Sociality: This species is solitary, which means that each individual female builds her own nest, collects nectar and pollen to provision her young, and lays her own eggs. In bees with advanced social structures, such as honey bees, the workers collect nectar and pollen to feed the young, and the queen lays the eggs. Solitary bees die soon after they build their nest, load nest cells with pollen and nectar, lay their eggs, and seal the nest cell shut. Many solitary bees may nest in close proximity to each other. Thus, solitary bee doesn't mean loner bee; it means that the female does all of the work on her own, without cooperation or collaboration from other bees in her species.

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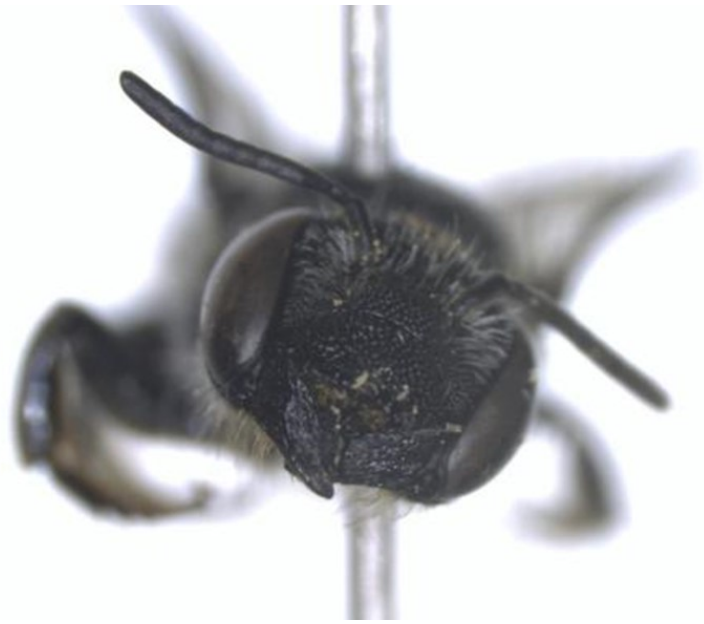
cont'd: Megachile Bees from Portland-Area Gardens

Nesting: *Megachile angelarum* nests in cavities. Rather than cutting leaves, females collect resins and gums to partition nest cells. Since this bee does not cut leaves, it lacks teeth on its mandibles, unlike other bees in the genus. The bee has been found in drilled pine wood (10cm deep holes, 0.5 cm in diameter; Dicks et al. 2010). Other studies have found this species in nest blocks with a 3/16th hole size (Galasetti 2017).

Appearance: Like many bees in this genus, it is a robust-sized bee, with females typically spanning 10-11 mm in length and males a bit smaller, at 8-9 mm in length. The lack of teeth and cutting edges on the mandibles can be helpful for identification.



Megachile angelarum. *The mandibles are a bit hard to see, by they are in the lower portion of the face. Note that there are no teeth, or serrated edges on the mandibles, which is a characteristic of this bee.*

Notes: Across 2017-2018, we collected this bee from seven different Portland area gardens, or nearly 1/3 of our sampled gardens. *Megachile angelarum* is likely parasitized by another bee, *Stelis laticincta*. *Stelis laticincta* is a social parasite, or cleptoparasite of other bees. What this means is that *Stelis laticincta* invades the nest of another bee, and lay their own eggs, just as cuckoo birds do with other birds. Once the *Stelis laticincta* eggs hatch, the larvae kill the *Megachile angelarum* larvae, and eat the pollen and nectar provisions that have been provided by the *Megachile angelarum* mother.

We collected a single *Stelis laticincta* in 2017-2018, and it came from a garden where we collected four *Megachile angelarum* specimens. Having a healthy *Megachile angelarum* population increases your chances of having more bee species, by supporting cleptoparasites, such as *Stelis laticincta*.

Megachile perihirta is commonly known as the Western leafcutter bee.

Diet: This bee is a generalist, and will collect nectar and pollen from many different types of flowering plants.

Sociality: Solitary (see notes for *M. angelarum*).

Nesting: Unlike many *Megachile* bees, this species does not nest in cavities, but instead digs shallow nests in the soil (Frankie et al. 2014, page 102). I had thought that all bees in the genus *Megachile* were cavity nesters. But, Eickworth et al. (1981) report that soil excavation was widespread in the family Megachilidae and in the genus *Megachile*.

Appearance: This was the largest *Megachile* species we collected. Females typically spanning 13-14 mm in length and males span 12-13 mm in length.

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cont'd: Megachile Bees from Portland-Area Gardens

Megachile perihirta female.

I am soooooo sad that we didn't collect a male of this species! The males have enlarged forelegs, covered with hairs (photos of the males can be found here and here), which the MALES USE TO COVER THE FEMALES EYES DURING MATING!!!! Biologists suggest that this helps to keep females calm and receptive, during mating (Frankie et al. 2014, page 103).

Notes: We only collected a single specimen of this bee. It came from our smallest garden (1,800 square feet in size), in an industrial area of Northeast Portland. And seriously: how cool is it to have a bee species where the mating ritual includes the male covering the females eyes with his super-hairy forearms!!!??

Megachile fidelis

Diet: Frankie et al. (2014) note that this species seems to prefer plants in the Asteraceae, including *Aster*, *Erigeron*, *Rudbekia*, Cosmos, and *Helenium*). Hurd et al. (1980) note that this species is commonly collected from sunflowers (*Helianthus*).

Sociality: Solitary (see notes for *M. angelarum*).

Nesting: This is a cavity nesting bee that tends to occupy larger holes (0.65 to 0.80 cm in diameter (Barthell et al. 1998). Unlike *Megachile angelarum*, which does not cut leaves or petals to line their nest cells, UC Davis has a great photo of a female *Megachile fidelis* carrying a piece of *Clarkia* petal. In his native bee research, Aaron Anderson would regularly find bees cutting neat discs from *Clarkia* flowers. I wonder, now, if collecting petal discs from *Clarkia* flowers is characteristic of *M. fidelis*.

Appearance: This species is another robust-sized bee. Females typically spanning 11-13 mm in length and males span 10-12 mm in length.

Once again, I am beyond bummed that we didn't collect a male of this species! Males of this species also have enlarged forelegs covered with long hairs, although not as pronounced as in male *M. perihirta*. Once again, biologists suspect that the males use their hairy forearms to cover the females eyes during mating (Frankie et al. 2014, page 103).

Notes: We collected one specimen from a 0.2 acre, flower-filled garden that is adjacent to a golf course in Canby. The other two specimens were collected from a 0.1 acre, flower-filled garden in Northeast Portland.

Megachile fidelis female.

Multnomah County Demo Garden 2019 Dry Farm Trial

...Information compiled by Sally Campbell, MG Multnomah County

The Multnomah County Demo Garden participated in a dry farming trial sponsored by the OSU Dry Farming Collaborative (headed by OSU professor Amy Garrett). The Demo Garden plot was one of 22 in the Willamette Valley. With the assistance of OSU staff, Demo Garden MG's planted 2 densities each of Early Girl tomatoes and N. Georgia Candy Roaster winter squash. Other than watering right after planting and summer rain, plants were given no additional water and were not fertilized. Soil moisture was measured weekly at 4 depths - approximately 1, 2, 3, and 4 feet - to track moisture movement in the soil. Once tomatoes started producing, they were harvested and weighed every week. All the squash was harvested and weighed at the end of the season.

Some key results are:

- Tomato and winter squash grew well without supplemental water in 2019, producing over 500 pounds of tomatoes and squash (Table 1).
- Plant spacing was significant for tomatoes. Those planted at a low density (wide spacing of 40 square feet per plant) had higher production (pounds fruit per plant) than those at a high density (close spacing of 20 square feet per plant). See Table 2.
- For the winter squash, those planted at the lower density (40 square feet per plant) actually had fewer pounds of fruit per plant than at the higher density (20 square feet per plant). This was unexpected and we currently have no good explanation. This test was compromised to some extent by inconsistent vigor of individual squash plants - many were damaged or killed by slugs and some, but not all, were replaced. See Table 2.
- Blossom end rot (BER) was much greater in the high density tomatoes vs low density (41% vs 4%) indicating that there was less soil moisture available to move calcium from the soil, through the plant, and to the fruit in the more closely spaced plants. See Table 3.
- As expected, loss of soil moisture (giving higher Watermark Sensor readings) occurred more rapidly at the more shallow depths (15" and 27") than at the 2 lower depths (39" and 51"). Significant moisture loss at the shallower depths was not seen until late August, likely due to heavy mulching (of cardboard covered with about 2" of wood chips) across the entire plot and more summer rain than normal.

Another dry farming trial next year is planned to continue demonstrating the feasibility of growing vegetable crops with little or no water in the Willamette Valley.

		lbs Harvested	lbs Donated
Winter Squash	N Georgia Candy Roaster	228.9	228.9
Pumpkin	Crown	45.5	45.5
Tomatoes	Early Girl - RIPE	197.8	133.7
Tomatoes	Early Girl - GREEN	92.8	83.2
	TOTALS	**565.0**	**491.3**

Table 1. *Total Pounds Harvested & Donated, Mult Co. Demo Garden Dry Farm Plot 2019*

	% with BER
High Density	41.2
Low Density	4.6

Table 3. *Early Girl Tomatoes, Blossom End Rot, Demo Garden Dry Farm Plot, 2019*

	# Fruit/ plant	lbs/plant
N. Georgia Candy Roaster Winter Squash		
High Density (20 ft^2/plant)	2	17.0
Low Density (40 ft^2/plant)	2	12.8
Early Girl Tomatoes		
High Density (20 ft^2/plant)	137	18.9
Low Density (40 ft^2/plant)	186	32.6

Table 2. *Number of Fruit & Weight of Fruit per Plant, Demo Garden Dry Farm Plot, 2019*

How to Read Seed Packets

...by Dr. Leonard Perry, Horticulture Professor Emeritus, University of Vermont

The colorful pictures and fanciful names on the seed packets at your garden center and in seed catalogs entice you to buy. But before you get carried away and select more varieties than you have space to plant, take a minute to read the packets and descriptions. There is much good

cultural information in these some of which may be unclear if you are new to gardening.

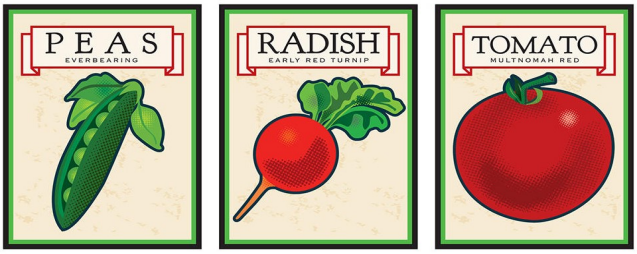
You may be surprised to learn that some of the flower and vegetable varieties for sale are not well suited to your particular location. Some grow best in a certain type of conditions, or need to be started indoors well in advance of planting. Start them too late, or just sow out in the garden, and you may get few if any flowers or fruit this season. So what do you look for on the packets and in catalog descriptions?

VARIETY-- Most packets and descriptions list the name of the variety (technically most are cultivars or cultivated varieties), and tell you if it is a hybrid. Hybrids come about from the crossing of other plant parents, and are often denoted as F1 or F2. This often gives a trait such as bigger flowers or more vigor. It is important to know if you want such traits, or if you want to collect seeds. If you collect seeds from a hybrid, they won't make the same plants. For this you would need the parent plants (often a seed company trade secret). To collect seeds that will come "true", you should look for "open pollinated" varieties.

TYPE-- Flowers also are identified as annuals, biennials or perennials. Annuals are plants that grow, bloom and die in one growing season. Biennials bloom the second year after planting and generally die after flowering. Perennials are those which come up year after year (if they are hardy). For perennials, many descriptions have or refer to a hardiness zone map so you can see if the plants will have a chance in your area.

DATE-- For best results, buy only seed that is packed for the current year. The date is generally stamped on the back flap. Although you might be able to find seeds packaged for last year at a discounted price, these are probably not a good buy. Poor storage conditions will reduce the viability of seeds. If you do want to take a chance on these, sow 10 seeds in a moist, paper towel, place in plastic bag, see how many germinate.

GERMINATION-- This percentage tells you how many seeds will produce plants under ideal conditions. However, keep in mind that the age of the seeds, how they've been stored, as well as how and when you plant them also will affect germination. Some seeds may need exposure to light to germinate. Some perennials may need special seed treatments prior to sowing. If you start seeds indoors in flats under ideal conditions, count on a slightly higher germination rate than if sowing directly outdoors. Descriptions often tell you which is best.



CULTURE-- Most seed packets will contain information on how and when to plant, including the number of days to seed germination and days to harvest for vegetables. Make sure if you see days listed that you know what they refer to — days from sowing to harvest, from planting out to harvest or other. Packets also will note spacing requirements, height and spread at maturity, thinning instructions, growth habit and special cultural considerations.

NUMBER OF SEEDS-- Unless you are buying bulk seeds by weight, you can be misled by the size and shape of the packaging. Be sure to check the weight, or more often number of seeds, to determine how much to buy. This is particularly important with higher priced seeds like geraniums that may only have five to ten seeds per packet. Some descriptions provide information on the length of row the packet will plant.

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cont'd...How to Read Seed Packets

DESCRIPTION-- Some parts of the plant description that may be important to you are whether the seeds are organic. If a vegetable, what are characteristics and shape and size and taste of the fruit? Is this variety resistant to diseases? This is especially important for some vegetables such as tomatoes, melons and squash. Often specific diseases are listed with letters which can be found in a key or bottom of the page, such as "V" for verticillium disease resistance.

You may see logos with descriptions. These should have a key if in a catalog, often for such as easy, organic, new, or an award winner. The most common award you will see for some is the shield of All-America Selections winners. These are varieties that have proven among the best in certain regions, or nationwide, and can be found online (www.all-americaselections.org/).

Also in descriptions, as in ads for other products, look for what "isn't" said. In other words, if you want a trait such as good freezing for beans and this isn't mentioned, this variety likely won't freeze as well as others. On the other hand, be wary of glowing descriptions such as "the best taste in our trials". Often I find most varieties offer the same superlatives, and what tastes good to one person isn't as good to another. Look for traits that are most important to you, such as size of fruit, color of fruit or flowers, height of plant, the need or not for staking, yield or time of flowering or ripening. While flavor is often the most desired trait of vegetables, color is often the most desired trait with flowers.

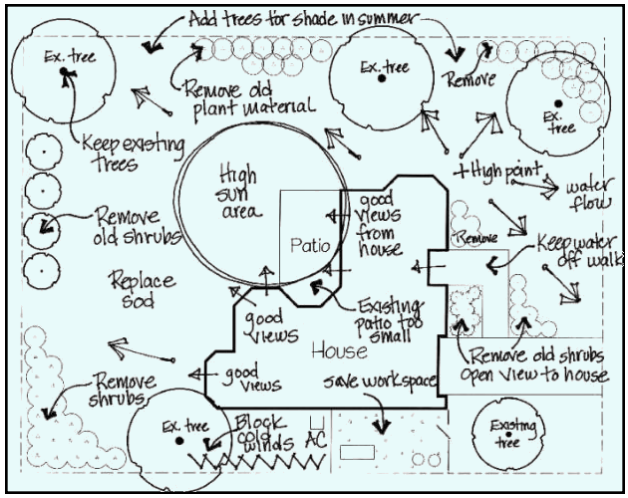
It bears repeating to have some sort of plan, or at least know how much space or how many pots you have, before buying seeds. It is so easy (speaking from experience) to be enticed by all the different varieties with colorful photos and glowing descriptions, ending up with several times as many seeds as you have the time or space to plant.

Landscape Design: Ten Important Things to Consider

By Gail Hansen de Chapman From University of Florida IFAS Extension, Solutions for Your Life publication

When designing a residential landscape, the most important step is to put a plan on paper. **Developing a master plan will save you time and money and is more likely to result in a successful design**. A master plan is developed through the 'design process': a step-by-step method that considers the environmental conditions, your desires, and the elements and principles of design. The **goal** is to organize the natural and man-made features in your yard into an aesthetic, functional, and environmentally sustainable landscape.

The process begins with a **site inventory and analysis of soil, drainage, climate conditions and existing vegetation**. This is a critical step for both plant selection and placement and locating family activities and functions. It's important because the same climate conditions that affect the plants - temperature, humidity, rain, wind, and sunlight—also affect you, the user. The next step is to **make a list of your needs and desires**—this helps you determine how your yard and landscape will be used. The **site and user analyses** will also help you establish a **theme** for the form and style of your design. The functional diagram is then used to locate the activity spaces on the site and from this diagram a **conceptual plan** is developed. The last step is a final design that includes all the hardscape and planting details that are necessary for installation. Throughout the design process there are **ten important things to consider**:



Typical Site Inventory Plan

1. ***Understand your site*** *for plant selection and activity location(s)*
2. ***Remember the user*** *by considering what you want and need*
3. ***Use a form and/or style theme*** *to help determine shapes and organize spaces*
4. ***Create and link spaces*** *by designating activity areas and linking with elements*
5. ***Consider the function of plants*** *for both environment and user*
6. ***Structure the plantings*** *by using massing and layering techniques*
7. ***Highlight important points*** *i.e. transition areas and focal points*
8. ***Pay attention to detail*** *in the materials, the colors, and the surface textures*
9. ***Take time into account*** *for growth and maintenance of plants*
10. ***Protect your resources*** *by using sustainable design practice*

For more details and continuation of article, go to:
https://edis.ifas.ufl.edu/ep375 .

Flies as Pollinators

...by Gail Langellotto, PhD, Statewide MG Coordinator and Cliff Brock, OSU Graduate Student

Post from the Garden Ecology Lab

This post comes from Cliff Brock, who is a graduate student in the Contreras (plant breeding), Langellotto (pollinators), and Lambrinos (invasive plants) lab groups. Cliff is studying the impact that plant breeding has on invasiveness and pollinator visits in butterfly bush (*Buddleja davidii*) and its cultivars. Having three co-advisors can be extremely challenging. However, Cliff has been a true joy to work with, and seems to have navigating the complexities of three labs, quite well.

Cliff decided to write about flies as pollinators. When I asked him why he wanted to write about flies, he mentioned that they usually pollinate flowers that have foul smells, or that may not be as attractive as other flowering plants. He said that he has a special place in his heart for these 'botanical underdogs' ~ a sentiment that I thought was sincerely sweet.

While bees deservedly get most of the attention regarding their pollination services, many of our most important crops and wildflowers are primarily pollinated by flies. Generally speaking, fly-pollinated flowers are dark maroons to reds and emit earthy, fermented, or putrid aromas. The co-evolution of plants and flies has resulted in some of the most amazing and unusual flowers. The largest flowers in the word, *Amorphophallus* and *Rafflesia,* are almost exclusively pollinated by flies and beetles.And even our beloved chocolate requires a small midge fly for its sole pollinator.

Rafflesia *is a genus of parasitic plants from SE Asia. Some have blooms 39" in diameter. Photo Source: https://en.wikipedia.org› wiki › Rafflesia*

Here in the US, many of our most beloved spring ephemerals have coevolved with flies. While many *Trillium* are bee pollinated (e.g. the abundant white *Trillium ovatum*), species with red and brown flowers are primarily pollinated by fungus gnats. The iconic American pawpaw (*Asimina triloba*), which has seen a resurgence in popularity, smells of rotting flesh and is irresistible to a whole host of fly species.

Asarum, or wild ginger, is a generally diminutive herbaceous plant often grown as a groundcover. The odd flowers are born close to the ground and are usually hidden from human view. Yet I find them particular beautiful, and every year I look forward to rediscovering them beneath the mottled foliage. *Asarum* takes fungal mimicry to a new level. Panda ginger, one of the Asian species, is especially funky. The flowers mimic the colors, textures, and smells of toadstools.

Asarum maximum (as seen on the left) might have evolved to mimic a woodland fungus somewhat like the black morel, above. Wild ginger photo from Plant Delights Nursery. Morel photo from Ohio mushroom society.

Here we see ***Trillium erectum*** *(or stinking Benjamin) absolutely covered with fungus gnats. Photo from Brooklyn Botanic Garden*

Winter Delights! shade Loving camelias

by Lorena Elliott, MG Polk County from the Polk Weed newsletter, January 2020

What is a camellia? The camellia is native to China where camellia flowers grow wild and during the early spring entire fields will be covered in colorful camellias. In Japan they are called the **Japanese Rose**. This type of plant can almost be considered a year round grower because there are Spring, Summer, and Fall/Winter varieties.

Winter Camellias, *Camellia sasanqua,* bloom in Oregon's Northern Willamette Valley from late October into February. The flowers are sweetly scented, smaller than Japanese Camellias, and hold up to winter rain better than Japanese Camellias. White, red, and pink flowers contain single, semi-double or anemone with leaves that are dark matte green and evergreen. They are elegant and dainty at the same time.

I enjoy the variety of sizes that range from very small shrubs up to 10 feet tall. Consider growing a smaller variety in a large pot if you have a small area or you can make a lovely hedge with the larger varieties. It is wonderful to observe hummingbirds feeding on the winter blooms during the season when other flowers are not available.

Growing tips:

- Camellias grow well in shade or dappled shade. Most do not do well in direct afternoon sun.
- They like well drained acidic soil (pH 6.0 to 6.5) and mulch with plenty of organic matter.
- Plant camellias a little high to help water drain away from the trunk.
- Prune camellia sasanqua in early spring before buds form.
- Fertilize camellias lightly after blooming and use a well-balanced blend for acid loving plants.

Interesting facts:

Did you know the camellia is the official flower of Newberg, Oregon, since 1949? The colorful, blooming shrub represents the city's Pan-Asian roots. Since 2009, the annual Camellia Festival in April has put the spotlight on the early bloomer with a variety of events. They even have a flower contest which is judged each year. (*Editor's note*: *The festival was headed up, and still is, by Bryan Stewart, a Yamhill County MG after finding out that it's Newberg's official flower.)*

A variety of Camellia is now known as "City of Newberg" after the Chehalem Park and Recreation District purchased naming rights to a particular camellia hybrid.

Interested in learning more? You might want to attend this festival on Saturday April 18, 2020, in Newberg this Spring! For more Info Click here.

How to Plan a Garden *from Texas A&M Agrilife Extension: https://cdn-ext.agnet.tamu.edu/wp-content/uploads/2017/02/planning-a-garden.pdf*

News Items...

Insights Into Gardening presented by Benton County

Saturday, February 8, 2020 8:00 A.M. - 4:00 P.M.

A day-long series of seminars for gardeners of all abilities and levels of experience. Select from 16 different classes offered in four concurrent sessions. **All classes are eligible for re-certification hours.** Please visit our website at bentonmg.org/iig for more information and on-line registration. In addition to classes, there will be exhibitors offering items for sale, a bookstore, and a raffle for some great prizes. Parking is free.

LaSells Stewart Center, OSU Campus, Corvallis, OR

Exceptional Speakers Wanted for 2020 Mini-College!

Please help us in our search for really exceptional speakers for Mini-College 2020.

The Speakers Committee is looking for presentations on:

'entomology'	*'new science'*	*'fire-wise gardening'*
'ornamentals'	*'soil'*	*'hot topics where multiple*
'vegetables'	*'plant pathology/problem ID'*	*presenters could participate'*

We're also considering topics for workshops and crafts.

We need a total of 26 classes!

If you have ideas to share, please contact Shari Bosler @ sharibosler@hotmail.com

splinters from the Board

...by Marcille Ansorge, OMGA Secretary, Tillamook

4th Quarterly Board of Director's Meeting - November 2nd, 2019 at Tillamook County Extension Office

- Leadership forum on grant writing was held on Friday, November 1, 2019.
- New officers were elected: Chris Rusch (Douglas), President, and Sharon Bordeaux (Douglas), Secretary. Eric Bosler (Central Gorge) will serve as Past-President. New newsletter editor will be Renee Taylor (Central Gorge).
- Gail Langellotto, State Coordinator, sent in report on work on Garden Ecology Lab, new hires, resignations, lack of funding for new positions.
- Silent Auction was held and netted $1,897.70.
- Details were provided about Mini-College in 2020 with theme: **Grow - Provide - Sustain**. Members are needed to help with various committees.
- Members voted to fund ECCO project with $3000.00
- Members voted to fund (4) scholarships for chapters to attend Educational Forums (formerly Leadership) and Quarterly meetings
- A budget was adopted for 2020.

New OMGA Board Members

President: Chris Rusch
Douglas County

Secretary: Sharon Bordeaux
Douglas County

Gardener's Pen Newsletter Editor: Renee Taylor
Central Gorge

Please join us in Corvallis July 24th-25th for Mini-College 2020

Oregon Master Gardeners Association Meeting Schedule for 2020		
Executive Committee	**Educational Forum** (formerly Leadership)	**Board of Directors**
Friday, February 7, 2020 Linn County Extension Office Tangent, Oregon	Friday, March 6, 2020 TBD	Saturday, March 7, 2020 TBD
Friday, May 1, 2020 Linn County Extension Office Tangent, Oregon	July - None	Thursday, July, 23, 2020 Corvallis
Friday, August 7, 2020 Linn County Extension Office Tangent, Oregon	Friday, September 11, 2020 Yamhill Chapter	Saturday, September 12, 2020 Yamhill Chapter
Friday, October 2, 2020 Linn County Extension Office Tangent, Oregon	Friday, November 6, 2020 Multnomah Chapter	Saturday, November 7, 2020 Multnomah Chapter

Proper Light is Important for Successfully Growing Vegetables Indoors

The key is sunlight. An indoor garden needs as much light as it can get during the shortened days. **So find a sunny window, preferably one that faces the south for the best light to grow vegetables.**

Kitchen windows are perfect if they have adequate light. The garden is right at your fingertips for care and harvesting. But a sturdy table in front of a living room or family room window may give you more area to work in. If you don't have adequate light, you can look into providing additional grow lights to make sure your vegetables are getting proper lighting to grow.

REMINDERS ON WATERING HOUSEPLANTS

A common dilemma many houseplant parents face is figuring out how much water their houseplants need. Depending on your experience, you may or may not be surprised to know that the **number one killer of houseplants is too much water**. Most houseplant owners are overzealous with the watering can, but many houseplants actually benefit from drying out a bit between waterings.

So how can you tell when a plant really needs water? Here are some tips.

- Stick your finger in the soil. In general if you go in an inch or two deep and you feel moisture, the plant does not need watering.
- Watch for changes in leaf color and sheen. A shift from deep green and glossy to bluish green and dull can signal oncoming wilt.
- Use the "weight trick": Lift the pot and gauge its heft. If a potted plant feels feather-light, it's dry; if it feels heavy, the soil is probably still damp. Of course this doesn't work if the pots themselves are heavy, or with large containers that are too unwieldy to hoist.
- A super-dry plant can be difficult to rehydrate. Try "double watering"—water well, wait awhile, then repeat. It helps to set the plant outside or in a sink or bathtub during drenchings.

some tidbits

OMGA oregon master gardener™ ASSOCIATION we grow gardeners

The Gardener's Pen Newsletter is published three/four times per year: April, July, October and December/January by the Oregon Master Gardener Association.
Deadline for the April issue is: No later than March 15th, 2020.
Theme: "*Insects and Garden Pests*"
Please send your articles and photos to: Marcia Sherry, Managing Editor @

GardenersPenNewsletter@gmail.com

OMGA™

2020 OMGA Executive Committee

President:	**Chris Rusch**
President Elect:	**Vacant**
1st Vice President:	**Vacant**
2nd Vice President:	**Julie Huyhn**
Secretary:	**Sharon Bordeaux**
Treasurer:	**Patrice Sipos**
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Newsletter Editor:	**Marcia Sherry**
Statewide Coordinator of the Oregon Master Gardener Program:	**Gail Langellotto**