

# *Yavapai Gardens*

Master Gardener Newsletter

December 2019-January 2020



## Table of Contents

2019 . . .	1
Holiday Plants	
Meet a Master Gardener—Susan Williams . . .	3
Plants Do Not Need to Be Fed . . .	4
MG News . . .	7

## 2019

*by Nora Graf*

So how was your garden this year? Mine suffered from some neglect. Other things consumed my time and life this year. There was a lot of benign neglect where things got watered but not much else happened. It's also been an odd year weather-wise. Rain at unexpected times, no rain when expected. The cold went for a long time and often too cold for me, the summer a bit more brutal than usual. The first frost came earlier than last year but later than it used to show up. Makes gardening a bit more difficult when your expectations are thrown to the ground and jumped on. Watered a bit more than usual. Some things didn't do well. Good tomatoes early on, but a late bunch of hornworms devastated the plants and they didn't recover till late. Did get a pumpkin this year even though the plant suffered some sort of disease or damage. Not sure what was going on. Got a few squash too and lots of basil. Dug up the sweet potatoes, not as good as last year but plenty for me. It seemed that with such a hit and miss year, acknowledging my lack of care, maybe it's good that the frost finally ended this year's garden. I have the garlic planted but it will be nice to have a break from it all.

I've managed to continue getting the newsletter out but it has been, more than once, a very last-minute effort. So, I would like to thank the people that helped me get through the year. Many of these people have helped for many years. They have stuck with me no matter how disorganized and late I was. My very long-term editors Marilyn Perkins and Pam Bowman. They have been as reliable as the sun going up and down. Lisa Gerber, Laurie Cameron haven't been on board quite as long but their efforts to correct my frequently mangled writing, grammar and punctuation have ensured that the newsletter is understandable. Mary Barnes has been helping out for many years. She is the final editor, checking at the last minute to catch the confusion I always have about meetings and speakers and all the Master Gardener News. She has been

my go-to person for answering questions.

This year there have been quite a number of contributors. I truly appreciate those who send me articles and pictures. I really should keep better track and I probably forgot a few, so here goes. Bill Marmaduke, Steve Moody, Steve McIntyre and others for providing pictures. Laurie Cameron, Linda Guy, Karen Austermiller, Marti Griggs and Judy Kennedy all wrote articles for the newsletter, Thank you! Then there are the Master Gardeners who have always been supportive of my efforts. I've had the good fortune to see the Master Gardeners at the help desk in Camp Verde on a regular basis. They consistently challenge me and provide me with ideas for this newsletter. Also, thanks to the staff of Cooperative Extension. No matter what I need they are there to help.

Another year nearly gone. Now it's time to start thinking about next year. Should you plant fruit trees? Maybe you should try something different and you're wondering if some of your favorites will still be available come spring. That time will be here sooner than you think. My advice; always try something new, always plant your absolute favorites, always take a risk when it comes to your garden, and always be optimistic about the future. Don't allow yourself to dwell on the negative. We sometimes think too much about the problems. Gardening is about hope and renewal. Each year different but folding into one another with a familiar schedule.



truly is an outdoor plant. Use LED lights instead of incandescent LED lights do not generate heat that helps keep the needles from drying out.

Many people buy living Christmas trees because they think they are a better environmental choice. Just keep in mind that many of these trees won't survive the experience. Poor cultural practices while in the container make them difficult to transplant. Many species are inappropriate for the area and December or January is probably not the best time of year to transplant them. In the real tree vs. fake tree controversy, I side with the real tree people. I don't think I need to add more plastics to the world. The decision is yours, just don't think that buying a live tree is a way to save the world.

## *Holiday Plants*

*From the December 1999 issue of Yavapai Gardens (with some changes)*



This is the time of year when many people purchase a plant for the holiday season. It could be a living Christmas tree or a flowering plant like poinsettia,

Christmas cactus or amaryllis to brighten up the house. Over the years I have printed several articles on the specific plants so this is just a general refresher on their care. If you plan on throwing the plant away after the holidays, think again; there is life after December.

None of these plants like to much heat. Certainly, they like the warm weather, but don't put them too close to vents. The air is too dry for them and they respond by dying.

Don't overwater. Incorrect watering practices are the biggest killer of plants. In most cases, the soil can be moist but not soggy or extremely dry.

Make sure they get plenty of light. Find them a nice sunny place that is not hot. Fertilize like you would other house plants.

Some plants like the Christmas cactus are good candidates for keeping after the holiday is over, and good cultural practices will keep it alive for years.

Amaryllis will rebloom year after year. They are a bulb and in the Verde Valley, they can be grown outside. They do well in containers and keeping them alive is easy. In September reduce the watering and don't fertilize. You want the leaves to die back. In October stop watering and place outside so it gets some cold weather and frost. Ignore it for a couple of months and start looking for a new flower bud to appear.

Other plants like poinsettias are usually thrown away because they are difficult to get to bloom again. The process isn't complicated; it's a matter of managing the light. They need 12 to 16 hours of darkness for the color to start to appear. By darkness, I mean NO light. Short times of limited light is enough to stop the process.

Living Christmas trees are not houseplants. If you want to plant it outside after the holidays don't put it in the house too early. Wait as late as possible and then get it back outside as soon as possible. The house is not a good environment for a tree. It



continued



# *Meet a Master Gardener: Susan Williams*

*by Laurie Cameron*

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Susan Williams hails most recently from Phoenix. Her decision to move to Camp Verde came from a desire to find a simpler life, one with trees and water, where she and her husband could have a garden and chickens and a bit of seasonal change. They were considering moving back to the Midwest where they both grew up until she saw a real-estate listing for a property in the Verde Valley. It showed big trees, an expansive lot and water rights on the Verde River. The next day she and her husband drove up, bought the property and the adventure began.

Although a change of seasons was one of the reasons she decided on the Verde Valley, it also meant that the growing seasons would be far different from her experiences in Phoenix. After a bit of research, she found that the University of Arizona and Yavapai County had a Master Gardeners program starting in a few months, so she promptly signed up. Thus, even though she was still working in Phoenix, she obtained permission from her boss to take the time off and drove to the Master Gardening classes every Wednesday for sixteen weeks.

When she finished the course, Susan's main volunteer contribution to the MG program was to organize the Master Gardeners table at the Saturday Verde Valley Farmers' Market. This effort gave her a wonderful opportunity to meet the area growers and to buy some outstanding organic fruit and vegetables, chicken and beef. She no longer coordinates the MG table at the VV Farmers' Market

but serves on the board of directors for it, as well as the Yavapai County Food Safety Council. She is also a member of Community Supported Agriculture.

Through the connections she made at the farmers' market, Susan learned how to preserve and can food, which became a new passion. Curious about what else she could do with the other things she was growing, she signed up for a DIY skin-care class using herbs as the primary ingredient. Susan has now completed four five-hundred-hour herbal medicine programs and has just applied to become a nationally Registered Herbalist. In addition to fruits and vegetables, Susan has an herb garden with twenty-five different herbs including calendula, California poppy, mints, skull cap, and lemon balm, to name a few.

When asked what she thought were the greatest strengths of the MG program she mentioned public education, teaching gardeners how to grow responsibly, and the opportunity for networking (meeting like-minded people). When asked how she thought the program could be improved, she indicated that she would like to see an optional course in organic gardening principles.



# *Plants Do Not Need to Be Fed – Stop Fertilizing!*

By Robert Pavlis, posted on the Garden Myths website: <https://www.gardenmyths.com/plants-stopfertilizing/>

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(Ed. Note: I am printing this because I have been driven to near madness by Facebook posts on gardening that the first solution people recommend for any plant is to throw more fertilizer on the plant. Don't. Please Don't. At least read this. I mostly don't read the Facebook stuff anymore, it's better for my long-term mental health. I know that people are constantly complaining about how horrible our soil is. You're going to read this and say, well this doesn't apply to us, he's talking about Canada for heaven's sake. But it does. Desert soils may be tough to deal with but fertilizer is NOT the solution to most of your plant problems)



Everybody tells you that plants need to be fed. Thousands of gardening books and blogs confirm the fact. Fertilizer companies certainly continue to make you feel as if you are letting your plants down if you don't fertilize. And most nurseries try to push their products at checkout. I have good news for you. In most garden situations, you do NOT need to fertilize. The idea that ornamental gardens need fertilizer is a big myth.

## **Which Plants are We Talking About?**

This post is all about plants growing in soil. It includes all ornamental plants, but does not include containers, or raised beds that do not have real soil in them.

The other exception is vegetable gardens, where some of us have a very short season and we need high growth rates to produce something before frost arrives.

It does apply to a soil that contains some clay (holds nutrients) but not sandy soil which needs to be treated differently.

## **Why Fertilize Plants?**

Before proceeding, I need to define fertilizer. In this

post, it includes both synthetic and organic, including things such as manure and compost. After all, they all provide the same nutrients for plants. The idea is pretty simple. We are living and need to eat, so we feed ourselves on a regular basis. Plants are living and so it follows that they also need to be fed. This seems to make sense, but it's wrong.

Plants do need nutrients, there is no doubt about that. Except for oxygen, hydrogen, and carbon, plants get most of their nutrients from the soil. The thing gardeners forget is that soil is like a big refrigerator of food. It has lots of food stored up ready for plants to use. It is not like a cupboard with empty shelves. It is more like a large restaurant walk-in freezer ready for the weekend rush. It's loaded with food.

Assume your refrigerator contains lots of apples. When you go to the store, do you buy more apples? Of course not. You already have too many. Fertilizing is a lot like buying these apples. You should only do it if you are running out of apples. When you fertilize you should only be adding the nutrients which are missing from the soil. There is no point adding extra potassium if the soil has plenty.

How do you know what the soil is missing? There are two options; (a) grow stuff and (b) get a soil test done. I prefer option (a), just grow stuff. If it grows, you do NOT have a nutrient deficiency. You can do a soil test, but they have limited value for most gardens.

The problem with many gardeners is that they don't do a soil test and they don't trust their own plants



which are showing them the nutrient levels are fine. Instead, they believe marketing programs, social media and many sources of gardening information.

## **Roses Need Special Fertilizer**

If you understand and believe what I have said so far, you will know that this title is wrong – Roses don't need special fertilizer – they probably don't need any at all. Google for images of rose fertilizer. I did that and found a bunch of different products, all of which are "special rose fertilizers." I have put a collage of these together in the above image. I even found a



special fertilizer for Knock-Out Roses – wow, I didn't realize they were that different from other roses – it is just marketing to get you to buy more stuff.

How can all of these products be a good rose fertilizer and at the same time have different formulations? They can't all be right. At best one formulation is correct and the others are wrong. But even that one is probably wrong as I will explain in the next section. The reality is that there is no such thing as rose fertilizer, or orchid fertilizer, or tomato fertilizer, except in the minds of fertilizer manufacturers, their retailers, and their faithful customers – and years ago I was one of those customers. If manufacturers can't agree on the right NPK formulation for roses – there is certainly an issue here.

### ***Replace Missing Nutrients in Soil***

I know some of you are still not convinced. Why would you be, when so much of the world is telling you that you must fertilize. But consider this example. You get a soil test done on your soil and it contains lots of all the required nutrients except that you are low in nitrogen. Your gardening friend down the street also had their soil tested. They have lots of nitrogen and lots of all the other nutrients, except they lack potassium.

Should you both use the same fertilizer for your roses? Clearly, the answer is NO. You need to add nitrogen, and your friend needs to add potassium.

### **The reason to fertilize is to replace the nutrients missing from your soil.**

You do not feed plants – you feed the soil, by adding the missing nutrients. Plants will then take what they need from the soil refrigerator.

### ***But .... Farmers Need to Fertilize***

Actually, farmers DO NOT need to fertilize to grow plants. They do have to fertilize to maximize yields, grow a good-sized crop and make a profit, and there is nothing wrong with a profit.

Studies have shown that for soil in both the US and England, for various crops, the added fertilizer increases yields by 40 to 60%. What that means is that without fertilizer farms would still produce about 50% of the crop they now produce.

Fertilizer is important on farms and it is of value in home vegetable gardens, but it has very little value in a landscape garden. Most gardeners do not care about

producing bigger seed heads, or bigger root systems, or taller plants.

They do want more flowers and fewer pest problems but too much fertilizer can result in more green growth in place of flowers, and more soft growth that is tastier to bugs (so I am told – this may be a myth?).

Ornamental gardens are perennial and long-term projects, not annual growth races to beat Mr. Winter.

My gas plant produced 20 flower stems this year, without fertilizer. Should I really fertilize in the hopes of maybe getting 22?

### ***The Proof – Aspen Grove Gardens***

I started Aspen Grove Gardens 15 years ago. No fertilizer or transplant solutions have been used. None

of the ornamental beds have received fertilizer, compost or manure. The soil is not particularly rich but it does contain 40% clay. I do mulch with wood chips which decompose and add very small amounts of nutrients. Fall leaves stay in the beds, mostly where they fall. I use the cut and drop method of cleaning up the garden– what the garden produces stays in the garden.

I grow 3,000 different types of plants, and most of them grow just fine. They flower well and I have few pest issues. Do I have the biggest roses? Probably not. Do I have the most flowers on my gas plant? Maybe not. But I also do not waste valuable resources by using fertilizer and I don't spend time hauling it around.

I am also not polluting my local rivers and lakes by having excess fertilizer run into them.

This is not an isolated case. Lots of experienced gardeners do not fertilize.

### ***Is Soil Depleted of Nutrients?***

This is a common opinion that many people share. Agriculture removes nutrients from the soil every year as they harvest the crops, so nutrient levels must be getting lower?

I thought this was true myself but a year ago I checked into it. I wanted to know if we needed to re-mineralize the soil. I could find no evidence that this was an issue.



## Fertilizer Recommendations

If you are running a farm and get soil tested, the lab will make a fertilizer recommendation based on maximizing profit. This is a critical point. The lab balances the cost of the fertilizer with the increase in yield and estimates the point where it still makes financial sense.

This makes a lot of sense for a production farm where profit is critical for a livelihood.

What happens when a homeowner gets soil tested? The lab tries to apply the same logic for the homeowner. How much fertilizer is needed to maximize profit? Except that in the case of an ornamental bed, there is no data to do this calculation and profit has little meaning.

I have spoken to the Ontario Government and they have verbally acknowledged that they do not know how much fertilizer ornamental beds need. The same situation exists in the UK and the US. This kind of science has not been done.

Fertilizer recommendations from a lab are at best a guess, based on agricultural experience. But the goals for agriculture and ornamental home gardens are very different.

## Look at Leaves for Nutrient Deficiencies

Lots of social media memes tell you that you can do this – but it does not work. I have discussed this in [Can Leaves be Used to ID Nutrient Deficiencies?](#)

## Should You Fertilize?

I like to keep gardening simple. Start by assuming your soil has all it needs. Plant stuff. If it grows, you do not have a problem so don't fertilize.

If you have problems growing a lot of different plants, it may be a nutrient issue. Then have the soil tested and follow recommendations.

If most plants grow well and a few don't, it is not the soil, except for the odd plant that is very fussy about pH. Solve this by getting different plants.

Adding a bit of compost, or manure from time to time is a good idea – not for the nutrients, but the organic matter will improve soil health.

This suggestion will not apply to all soils, but most soil containing some clay and/or organic matter will hold lots of nutrients and don't need to be fertilized.

## About the Author

*Robert Pavlis is a well-known speaker and educator with over 40 years of gardening experience. He is the author of Building Natural Ponds and publishes the popular gardening blogs; GardenMyths.com and GardenFundamentals.com. As the owner and head gardener of Aspen Grove Gardens, a six-acre botanical garden, he grows 3,000 varieties of plants.*



## Congratulations

*for completing your  
first 50 hours*

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*Mike Sheedy — mentor Bob Reynolds*  
*Pam Edwards — mentor — Betty Loos*  
*Emily Lane — mentor Jan Gradle.*  
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*Jo Graves — mentor Tricia Michelson*  
*Susie Percy — mentor Leigh Ann Frankel*  
*Rose Bliss — mentor Phyllis Jiacalone*





## 2019 Wrap-up

Please submit your not-yet-reported  
2019 hours by January 5<sup>th</sup>.



### 2018 Newsletter Deadline Schedule

The newsletter comes out every two months. Please note the deadlines.

Publish	Date	Deadline
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Feb-Mar	Feb 1	Articles Jan 5, announcements Jan 25
April-May	April 1	Articles March 5, announcements Mar 25
June-July	June 1	Articles May 5, announcements May 25
Aug-Sept	Aug 1	Articles July 5, announcements July 25
Oct-Nov	Oct 1	Articles Sept 5, announcements Sept 25
Dec-Jan	Dec 1	Articles Nov 5, announcements Nov 25

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for deadlines.

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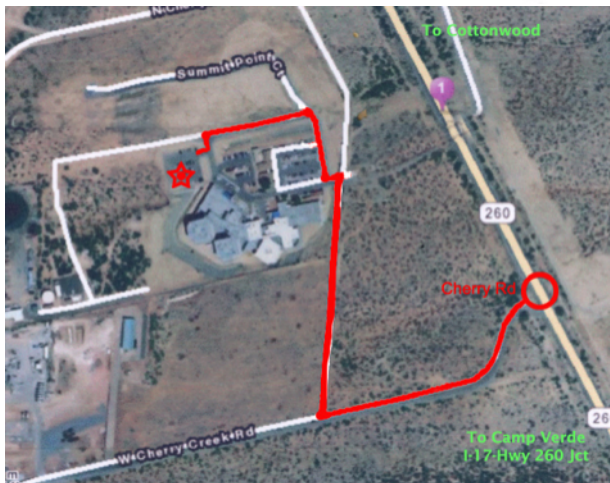
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## MG NEWSLETTER



## *Next Meetings*

No meeting in December

January 15: Camp Verde, speaker TBA