### University of Arizona

Yavapai County Cooperative Extension

**Yavapai Gardens** Master Gardener Newsletter December 2018-Januar

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## 2018 Year in Review

by Nora Graf



Another interesting year nearly over. Who would have thought October would be the rainiest month of the year? I told someone that I might actually have to learn how to use an umbrella if the rain continued or move to the coast of Oregon to get out the rain. Turns out I didn't have to do either and I'm sure that pretty soon I'll be

grumbling about the lack of rain. This year my garden, my entire yard was a disaster. The yard is experiencing an onslaught of gophers, controlled only by a couple of neighborhood cats who seem to be ever hopeful but not that good at catching them. In the meantime, gophers are laying waste to my iris, a hesperaloe, an agave, part of germander patch, a young fernbush and from the looks of the holes showing up, nearly everything that is growing. If they would do something about the Bermuda grass I would be a lot happier about them.

The vegetables suffered from lack of attention (I had a lot going on this summer) and were first pummeled by a problem with the watering timer which I discovered just barely in time. Next came an incredible number of hornworms. More than I've seen in a long time. I pretty much just let them have the tomatoes and they took advantage of my offer. I have a fondness for the moths they become. The tomatoes were almost completely defoliated. The tomatoes came back and have a lot of fruit on them but time is not in their favor. I guess the only good news is that the sweet potatoes just kept going and by the time this newsletter comes out I will have found out if they produced my only success this year. As with most gardeners though, I am ever hopeful that the next year will be better. I did finally get some garlic in the ground. New sprouts are showing up although the timer seems to be weird again. I should be able to keep a closer eye on things this winter.

As part of the final issue of the year, I always take time to thank those who have helped with the newsletter each year. There are several people that work at editing. I even have people who are writing articles. YEAH! for that. Plus, all the folks that support the effort. If I miss anyone, please let me know. I sometimes lose track of things and this year has been particularly hectic.

My editors include Pam Bowman, Laurie Cameron, Marilyn Perkins, Mary Barnes, and Lisa Gerber. They do a great job of finding my mistakes. Good thing, there are often a lot of them. I've been getting pretty sloppy lately so thanks to all of them for their work.

There have been several people who have provided articles. What a wonderful thing it is not to have to write everything once in a

while. So, thank you Amanda Gagnon, Laurie Cameron, Linda Guy and Bill Marmaduke. I also want to thank Bev Majerus who coordinates with the writers which I really appreciate.

There were several people who provided photographs but I don't have their names. I apologize that I can't single them out but thank you for all the photos of MG events. They are a great addition to the newsletter.

Two more thanks...One to all the Master Gardeners. I seem to have been cloistered in my house the last couple of years so don't get to meet many of you these days but you do good work. The second one is to the staff of Yavapai County Cooperative Extension. It's always a pleasure to work with you and your help is appreciated.

2019 is close at hand and spring isn't all that far away especially if you live in the warmer areas of the county but now is the time to take a few breaths, and spend time with friends and family, take a vacation, or just put your feet up, have a beverage of your choice and enjoy the beginning of winter.



## New MGA Scholarship Honors Mary Barnes and Jeff Schalau



It was announced at the November MGA meeting that the new Master Gardener Scholarship had been named to honor two prominent leaders: Mary Barnes and Jeff Schalau.

The Yavapai College scholarship will be known as: Mary Barnes - Jeff Schalau Master Gardener Scholarship. It will be will be awarded to Yavapai College students pursuing an AAS (Associate of Applied Science) degree in Agriculture Technology, Enology or Viticulture. Awards may also be made to those pursuing related certificate programs. The scholarship is to be administered by the Yavapai College Foundation.

MGA membership overwhelmingly approved the establishing the scholarship by email vote in September. The initial funding is \$1000. Continuing funds will be included in the annual MGA budget which must be approved by the membership.

The scholarship is open to additional tax deductible donations given through the Yavapai College Foundation, <u>https://www.yc.edu/v5content/yavapai-college-foundation/</u>, stipulating the Master Gardener Scholarship.



## Wood Chips are a Gardener's Best Friend

By Laurie Cameron

These last couple of days I have been digging up some of my older perennials and dividing them, an excellent strategy for promoting healthier plants-and getting more of them. Most of the plants in my yard are drought tolerant and, if not native, adapted to our semi-arid climate. The first year I began landscaping, I was advised to mulch around these plants with wood chips. So, I called an arborist and got a MOUNTAIN of wood chips for ten dollars.

I was a bit intimidated by such a huge quantity of wood chips, but he told me that many of the farmers around

here put a good four-inch layer or more on the fields that they let fallow and eventually get wonderful soil from it. My main purpose, however, was to reduce weeds, cool the soil in the summer, and conserve water. I gamely carried wheel barrel after wheel barrel of fresh wood chips (the smell reminded me of Christmas) and spread them around all my bushes and native plants.

Wood chips are not meant to be used as compost. We all know that compost is used as a soil amendment – something that is worked into the soil to improve its texture and provide other benefits. A good compost is in a highly advanced state of decomposition, and you shouldn't be able to tell what it was made of. But as a mulch, wood chips have many benefits.

According to the Texas A&M extension service, it is a common misconception that fresh wood chips tie up nitrogen during their decomposition, causing plants to go hungry. It is true that nitrogen depletion will be a temporary problem when fresh wood chips are incorporated into the soil, which is why they should only be used as a surface mulch. Because of this, and the general coarseness of wood chips, they are best not used around vegetables and in annual flower beds.

Many studies have shown that just the opposite occurs when wood chips are used on trees and shrubs, according to the University of Vermont extension service. Yes, nitrogen depletion does occur as wood chips decompose, but only on the surface of the soil when used as a mulch. This has the benefit of preventing weeds from growing for the very reason that nitrogen is lacking.

As wood chips decompose, they slowly provide small amounts of nutrients. Also, as they break down, they increase the organic matter of the soil. This organic matter gets worked down into the soil through the activity of earthworms and insects that live and burrow through the soil. The increased organic matter in the soil results in healthier plant growth (Texas A&M).

Another major concern is whether wood chips will bring in diseases. If you are concerned about this, let them age for a year or two before applying. However, studies have shown that wood chips don't transmit disease organisms to roots of healthy trees. In healthy soils, there are more good fungal diseases that out-compete the bad ones on roots. In healthy plants, weak plant diseases can't get established.

Another benefit of wood chip mulch is that, in contrast to



gravel mulches, they have a cooling effect on the environment by absorbing and holding onto water. Decomposed granite, crushed stone, lava rock, pebbles, pea gravel, and other rock materials absorb heat from the sun and release it into the surrounding areas during the day and night. They actually increase the temperature of the area and can add glare from reflected light. This extra heat increases cooling costs if it is near an indoor or outdoor living space. It also can increase plant stress and water needs.

Note however that

wood chip mulches are not suitable for all native plants. Penstemons come to mind. These plants need to have their crowns dry so a mulch that absorbs and retains water can be very damaging. High Country Gardens recommends mulching with gravel. This encourages re-seeding and protects the crowns from sitting wet over the winter. Bark mulch is a no-no that can induce fungal problems and rot the plants.

Did I mention insects? Wood chips are a mecca for birds. In our yard, we grow plants that are attractive to hummingbirds, butterflies, and bees, so these are constant visitors. Besides hanging out in the trees and supping on nectar, birds love to land in our garden beds for a little insect snacking.

Wood chips do break down rather quickly and will settle after a few weeks. After my first growing season, I noticed that what was once four inches of mulch was more like an inch. So, I did a second application this last spring.

As I mentioned at the beginning of this article, in the past couple of days, I have been digging up some of my perennials and dividing them. As I brush away the wood chips spread around the plants to get to where I can dig, I am amazed. Just under the wood chips where they have been decomposing the soil is dark and loamy. Because it serves to hold in moisture, it is much more "workable" than when I first planted those perennials. Of course, it helps to have had the rainiest October in history (at least for Phoenix).

Wood chip mulches from your local arborist may not be as pretty as the dyed stuff you can get at the gardening centers or gravel and stone mulches, but I think it's a matter of opinion. When I see my mulched beds, I see an enabling environment for my plants and visitors to my yard. And that, in my mind, is beautiful.

#### Sources:

https://www.mrt.com/lifestyles/article/Rock-mulch-artificial-turf-can-increase-7434431.php

https://pss.uvm.edu/ppp/articles/woodchips.html

https://agrilife.org/etg/fresh-wood-chips-for-mulch-harmful-or-good/

https://www.highcountrygardens.com/perennial-plants/ penstemon/growing-penstemon

## A Damp but Delicious Recognition

by Marti Griggs with photos by Steve McIntyre

Master Gardeners were once again responsible for bringing rain to the Verde Valley. Two years ago the annual picnic was punctuated with thunder, lightning and downpours, while this year we just got a steady, soaking rain. Those of us from this side of the county are mighty thankful for the moisture! But in no way were spirits dampened as we gathered together at Red Rock State Park outside of Sedona.

After everyone had their fill of the great pot-luck lunch, Jeff Schalau presented awards in recognition of the work done by the Yavapai County Master Gardeners. There were 45 recipients this year for hourly awards and ten new Emeritus level Master Gardeners were honored for providing ten continuous years of volunteering. A list of all recipients follows.

150 Hours Helen Boland Helen Brown Marianne Jimenez Liz Johnson Georgene Lockwood Trudy Eccelston Karen Maeser Nancy Martin Laura Mineer Roberta Pelayo Sue Poling Beth Snider LOA Lisa Snowden Michele Weston

250 Hours Lee Atonna Ann Baugh Nancy Christie Lori Dekker Marti Griggs Jamie Hinman Carol Holloway **Phyllis Jiacalone** Marion Johnston Sandi Kelleher Jenn Moreland Carol Quasula Dick Ryan Judy Thompson **Diane Thornbrugh** Susan Williams

500 Hours Diana Atkins Nancy Gibson Alice Johnson Lois Johnson LOA Mike Wagner **Diane Young** 

**Debbie Allen** Debbie Mayne Kathe Sisley Peggy Stair

1000 Hours

1500 Hours Al Heron **Bill Marmaduke** Angie Mazella

2000 Hours Betty Loos Cathy Michener

Emeritus David Black Trudy Black Judy Cowan Jane Grams Donna Hunter Betty Loos Sherry Morton Donna O'Rourke Toni Wackerly Jennifer Young



150 Hours - Roberta Pelayo, Laura Mineer, Sue Poling, Lisa Snowden, Michele Weston



1500 Hours - Bill Marmaduke



2000 Hours - Betty Loos



Back Row: Marion Johnston, Sandi Kelleher, Lori Dekker, Nancy Christie, Jamie Hinman. Kneeling: Jenn Moreland, Marti Griggs, Judy Thompson





1000 Hours - Kathy Sisley



## Barn Owls vs Rat Zapper

By Karen Austermiller



It's the time of year for cleaning out birdhouses and nesting boxes, in preparation for next season, and I was out cleaning my barn owl nesting box. Thinking about what I found in and around the box made me laugh when I compared it to the success of a Rat Zapper up on the patio.

This barn owl box has been up for about 5 years now, which accounts for it's somewhat beaten appearance but to the barn owls it's just nicely broken in. I built it from plans found online courtesy of the Santa Clara Valley Audubon Society. Here is a link to the plans in case you are interested:

http://www.scvas.org/pdf/cbrp/BuildingBarnOwlBoxes.pdf

It's a pretty big box, and the design was created to provide a large enough nesting and hatchling area, a separate "vestibule" with partial blocking wall to keep predators away from the nestlings, and simple grooves cut or routed below the opening instead of a perch – again, to discourage predators.

The top is partially hinged for cleaning access, and further access is provided by another hinged and latched flap on one end of the nesting cavity area. I put a small bucket of coarse wood shavings in, as barn

owls do not haul stuff and build nests.

So what was so funny about cleaning out a somewhat stinky barn owl nest box? I noticed the huge number of owl pellets for one thing, and looking at the base of the pole it's mounted on, there's a virtual mouse/rat graveyard of bones scattered in the dirt.

I mentally compared this to the one little patio mouse I get in a couple of weeks with the Rat Zapper. No contest. And maybe no wonder I don't catch very many on the patio...the owls get most of them before they get that far.

The box gets cleaned every November, and always shows signs of use, even though I can visually verify just one successful season because I saw the three babies and watched them learn to fly.





## The British Landscape

by Nora Graf

I'm sure most of you have coveted, at some point in your garden career, after the lush look of an English garden or border. No doubt they are In fact, we look spectacular. to their gardens and plants for inspiration even more than we look at American gardens. Strangely though there are a lot of American plants in those British landscapes. The changing bright fall color you see doesn't come from native species of Great Britain, they mostly come from America



plants. Fall was a dull season in England before the American trees arrived. Trees like moosewood (*Acer pensylvanicum*), pecans, canoe birches (*Betula papyifera*), toothache (*Zanthoxylum americanum*) and pencil cedar (*Juniperus virginiana*), all American trees that are found in British gardens.

Looking at English garden pictures you might see purple coneflowers, sunflowers, cardinal flowers, coreopsis, Rudbeckia all from America. Flowers like columbine, sunflowers, cardinal flower were

introduced in the 16 and 17 century. Black-eyed susans, California poppy, and bleeding heart came to Britain in the 18 or 19 century. Wild blue phlox

traveled overseas in the 20 century.

There is more....Virginia strawberries, monardas, various daisies including erigerons, echinaceas, Michaelmas species, aster species, helianthus species (sunflowers), solidago species, apparently the English liked our Composite species. American nightshade (Phytoplasma) came from New England, Virginia and Maryland for medicinal purposes and ended like some others in the border garden. Lupines which are a striking feature in any garden left America for the English countryside and then came back as the giant forms we see today. Phloxes also evolved on their journey from America to Britain and back. Penstemons made the trip and became big trumpetshaped things. I think I still like our native species better but to each their own. Mirabilis jalapa, ipomeas, love-liesbleeding, daturas, oenotheras, verbenas, tropaeolums, vuccas and agaves all made the journey overseas.

considered by some as the father of American botany, sent seeds to Peter Collinson. a British plant collector. Over the years Bartram sent hundreds of boxes of seeds to Collinson. They became known as Bartram boxes an began the transformation of the English garden. There was the Magnolia grandiflora, fringe tree, balsam fir, tupelo, maples, witch hazel, and arrowwood. Many of these

In 1733 the American

farmer, John Bartram,

seeds ended up in the hands of Lord Petre who created a completely new landscape on his estate, Thorndon in Essex. He planted around 40,000 American trees on the estate. If it wasn't for his early death there probably would have been more. These created the foundation for the English garden and Bartram's plants became available in

nurseries all over the country.

Before you start huffing and puffing over America's greatness, we sent over weeds too (weeds are in the eye of the beholder, just plants we can't control). Some species liked British growing conditions too much I guess. Species of solid a go, datura, Jerusalem-artichoke, honey locust, even Rudbeckia, lupines, Camassia (wild hyacinth), Spiderwort and

Indigo bushes are among the thugs that are transforming gardens against gardeners' wishes.

#### John Bartram

We can thank the American John Bartram for the English garden. This simple farmer became one of the greatest botanists and spreaders of American plants in this country's history. Born in Pennsylvania in 1699 to a Quaker farming family, he had no formal education beyond the local school but he was called by Karl Linnaeus (the creator of the hated binomial system for naming things) "the greatest natural botanist in the world." On his farm he dedicated a space to interesting plants, gradually looking outward to other parts of the country and then the world. This hobby turned into his livelihood.



### MG Announcements

#### Year End Hours Reporting

Please have all of your volunteer and continuing education hours reported by January 5<sup>th</sup> so they can be included in the 2018 annual results.

#### Continued from page 6

Bartram traveled extensively in a time when you walked, rode a horse or wagon. It was slow travel, but gave him time to look He traveled to Lake Ontario in 1743, East Florida, the around. Carolinas and Georgia in the winter of 1765/66 along with a trip to the Ohio River. On these trips, he collected plant specimens but also seeds. The specimens he sent to Karl Linnaeus, Dillenius (a German Botanist) and Gronovius (a Dutch botanist) for identifying and naming. He created a botanical garden outside of Philadelphia that was considered the first botanical garden in America. These Bartram boxes of seeds and plants were sent each fall to Peter Collinson who distributed the contents to a wide range of clients. Each box contained 100 or more different varieties of plants, sometimes dried specimens and natural history oddities. Some live plants were sent also but the long travel time for mail and the expense limited the movement of live plants.

Bartram received a pension of 50 pounds a year from King George III in 1765 to be the King' Botanist for North America, a title he held until his death. Bartram's seeds and plants became part of the college at Kew Gardens.

Today Bartram is best known for his introduction of many American trees and shrubs including rhododendron and magnolia species. He introduced the Venus fly-trap to cultivation and discovered the Franklin tree (*Franklinia alatamaha*, he was a friend of Benjamin Franklin), a tree now extinct in the wild but grown in gardens still today because of the seeds Bartram collected and propagated.

Bartram died in 1777 but his business and garden were continued by his sons after the American Revolution for three generations and Bartram's garden remained until it was sold in 1850. Andrew Eastwick a railroad industrialist preserved the garden as a private park but after his death, city expansion plans came close to destroying it. Fortunately, efforts by Thomas Meehan (nurseryman and writer) and Charles Sargent (the Arnold Arboretum, Boston) worked to preserve it. The site today is managed by the John Bartram Association in cooperation with Philadelphia Parks and Recreation.

http://bartramsgarden.org/about/history/

#### 2018 Newsletter Deadline Schedule

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

Publish Date Deadline

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 From the Editor: Send or email articles to the address below. Email is preferred. Please see schedule for deadlines. Nora Graf mesquite2@hotmail.com PO Box 3652 Camp Verde, AZ 86322 928-567-6703

MIANC

Jeff Schalau County Director, Yavapai County Extension Agent, Agriculture & Natural Resources email: jschalau@cals.arizona.edu

Prescott Office 840 Rodeo Dr. Building C Prescott, AZ 86305 928-445-6590 MG Help Desk 928-45-6590 ext 222

Camp Verde Office 2830 Commonwealth Dr #103. Camp Verde, AZ 86322 928-554-8999 MG Help Desk 928-554-8992

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### MG NEWSLETTER







# Next Meetings

#### **NO Meeting in December**

Jan 16<sup>th</sup>, 6:30pm Master Gardener Association Meeting, *Prescott*, Phyllis Jiacalone, "Roses 101."

Feb 20<sup>th</sup>,6:30pm Master Gardeners Association Meeting, *Camp Verde*,