

# Yavapai Gardens

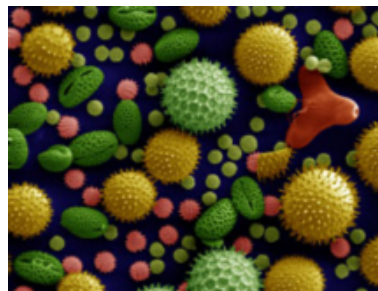
Master Gardener Newsletter

August—September 2021



## *In an Effort to Solve a Problems . . . How Humans Just Create More Problems*

*by Nora Graf*



I'm always finding interesting things online. One of best newsletters I get is called Atlas Obscura. <https://www.atlasobscura.com>

They bill themselves as "The definite guide to the world's hidden wonders." When I first came across them several years ago

they focused on interesting and odd locations. For example, if you have the opportunity you might want to see the Mushroom House in Bethesda Maryland. <https://www.atlasobscura.com/places/mushroom-house-of-bethesda>

They have now expanded into foods, experiences, stories including some interesting for gardeners. Today, (end of June) they came out with one that is an example of how human solutions to defeating nature often go awry. For those of you that have pollen allergies or hay fever you might find yourself a bit unhappy. Don't blame the trees, blame human's obsession with neatness.

**Warning:** The original article actually talks about sexism in tree planting and its relationship with allergies. I just focused on the biological aspects of planting male trees everywhere and the possible ramifications. I'll leave the rest for the readers to mull over.

**A little bit of botany first:** Trees can be either male or female or both. Trees like ash and mulberry are dioecious which means that there are male trees and female trees. Trees with separate female and male flowers on the same tree are monoecious and include trees like pine and oak. Some trees have perfect flowers such as apples that have both female and male parts in a single flower.

For years now, cities and homeowners have been encouraged to plant male trees. The reason is that nobody wants to clean up all the fruit and seeds that female trees drop every year. Maybe some of you remember when Arizona had mulberry trees that produced fruit, but they were gradually replaced by the fruitless mulberry so no one had to clean up the mess. As things unfolded over time, fruitless mulberry trees created their own problems. The fruitless mulberry is a male tree and regardless of the lack of female trees still produces

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pollen. This change didn't just happen in Arizona, it happened all across the country. The USDA believed that managing pollen would be easier because it could be washed away by rain or wind rather than by managing seeds and fruit. People started planting male trees including willows, ash, aspen and pepper trees among others. Nurseries started selling only male trees. Growers started cloning only male trees and soon we had millions of trees churning out pollen every year in increasing quantities and more male trees were being planted everywhere. Eventually entire communities were filled with nearly 100 percent male trees. For us old-timers there was a day when people came to Arizona to get away from plant allergies. Today Arizona is a hotbed of allergies. Start asking around today who suffers from allergies every year and you might be surprised at how many there are.

So, what would have happened if people had planted female trees? Perhaps it would have worked out better. Female trees can't produce fruit and seeds if they aren't pollinated so no pollen means no fruit or seeds, meaning less mess. Now chances are there would be some pollen around so some fruit would

form but it would have been minimal compared to the amount of pollen that now surges into the air every year and climate change seems to be making the pollen problem worse. In some cases, because of warmer temperatures, trees that originally bloomed once a year now bloom a second time.

In Durham, North Carolina there is so much pollen in the air that it turns the sky yellow-green. Houses, cars, anything left outside is colored yellow from the pollen and Durham isn't even the worst place for pollen. Durham just happens to be at a point where they can make changes that will impact the pollen problem which is why they are a focus in the article. They have a chance to redo their aging urban forest.

Increasing diversity is important. Planting one species of tree over large areas simply makes the problem worse. Multiple species are better for allergy sufferers and the environment.

If you are planting trees, maybe raking up seeds and fruit isn't such a bad idea, its better than sniffing all summer long.

The original article is in a blog posting in Scientific American. Atlas Obscura reprinted it and added some interesting pictures. You should look at it, if you have allergies and be glad you don't live in Durham.



<https://blogs.scientificamerican.com/guest-blog/botanical-sexism-cultivates-home-grown-allergies/>

[https://www.atlasobscura.com/articles/seasonal-allergies-blame-male-trees?utm\\_medium=atlas-page&utm\\_source=facebook&fbclid=IwAR1MfgHp8-Mj\\_7-gR4UjO7UMnPgXjrRIWB0EGB2JyyqcC-nE3e\\_YEzygcDg](https://www.atlasobscura.com/articles/seasonal-allergies-blame-male-trees?utm_medium=atlas-page&utm_source=facebook&fbclid=IwAR1MfgHp8-Mj_7-gR4UjO7UMnPgXjrRIWB0EGB2JyyqcC-nE3e_YEzygcDg)





# Meet A Master Gardener: Sharon Marmaduke

By Jennifer Moreland

Photographs by Sharon Marmaduke



When you meet her, Sharon Marmaduke warms your heart. She is quiet, mild-mannered and smiles easily. Her approach to life resonates with all of us “the more time and energy you invest in your garden, the more it will return to you.”

Sharon grew up in central Texas in the 1950s when Austin was still a small town. She was surrounded by relatives who had arrived in the previous century and for generations farmed the rich, fertile soil leading to the Gulf Coast. Just

about everything grew there; her mother could hand Sharon a pile of seeds and almost instantaneously her childhood garden was blooming full of zinnias, sunflowers, green beans, squash and corn. Her father would take her and her sister on Sunday springtime drives to enjoy the fields of bluebonnets, Indian paintbrush, and evening primrose.

Sharon’s grandmother mentored her from a very young age to appreciate growing flowers. Grandma’s special garden grew in the tiny town of Schulenburg, Texas. A towering Southern Magnolia filled her front yard. A back corner of the enormous yard was dominated by an ancient overgrown wisteria, entwined in old trellises, which was adopted by the many grandchildren as a natural playhouse. Nearby, Grandma also grew roses, honeysuckle, dogwood, and jasmine. The sweet smells of springtime are still vivid to Sharon so she was disappointed when her favorite Texan plants did not thrive in the Verde Valley climate, except for two honeysuckles – Japanese Honeysuckle (*Lonicera japonica*) and Western White Honeysuckle (*Lonicera albiflora*). Sharon says that she definitely feels the pain of Help Desk clients calling about dying magnolia trees.

Sharon met Bill on a blind date while studying at the University of Texas and they married after college. After Bill’s army service and graduate school, they moved to Flagstaff, Arizona where they

raised a daughter and two sons. In 2008, Sharon and Bill retired to a 2.7-acre farm about 4 miles south of Camp Verde. They live close enough to the Verde River to hear the floodwater running. The Camp Verde farm receives irrigation from the “Verde Ditch” – the oldest, hand-dug irrigation ditch still in use in Arizona. The “Verde Ditch” draws water from the Verde River and runs parallel to the river for about 18 miles, irrigating about 1,200 acres of rich alluvial soil and giving the area its nickname, “The Green Zone.”

Sharon and Bill built a beautiful cabin home next to a large old barn of doubtful structural integrity. The barn shelters a flock of 30 hens and a collection of



treasures including a classic John Deere tractor that only drives in low gear. The barn also provides shelter for hundreds of bats, birds, mice as well as occasional stray cats, skunks, rock squirrels, and raccoons.

Sharon and Bill started planting their fruit orchard before building the cabin home. In developing the farm, Sharon says that they have learned to respect the intense sunshine and heat during the summer, and pay close attention to the resulting stress on all plants for water and protection. Plants that normally thrive elsewhere in “full sun” can quickly “fry and die” in this environment. Now half of the farm acreage is dedicated to growing a large vegetable garden and a fruit orchard with about 41 heirloom varieties of apple, pear, peach, nectarine, and plum trees.

There grows several old apple tree cultivars within the *Malus domestica* genus, all with interesting historical parentage. The Black Twig is an old Tennessee apple from 1830s that is reported to be Andrew Jackson’s favorite fruit. The Ashmeads Kernal is an English winter russet apple from the early 18<sup>th</sup> century and is known for its unique champagne-sherbet juice. The Calville Blanc d’Hiver



is a gourmet culinary apple grown for Louis XIII in the 17<sup>th</sup> century and considered the classic apple for Tarte Tatin. The Snow Fameuse is a French-Canadian dessert apple, purportedly a parent of the MacIntosh. The Winter Pearmain is an ancient variety from 13<sup>th</sup> century England that was planted in the territorial south before the Civil War.

In 2016, Sharon signed up for the Yavapai County Master Gardener class. She had already been familiar with the people and had attended MGA activities, but as she says “there is always more to learn.” Over the past five years, she has accumulated over 750 volunteer hours, especially enjoying participation as an MGA class assistant and as Mentor Coordinator on the Verde side. It was a great opportunity to meet new members, to help them to get involved, and to meet the membership. Her advice to all new Master Gardener Associates is “to explore various volunteer opportunities, even if it’s outside your comfort zone: the support you’ll receive is extraordinary and you will meet an interesting group of new friends.”

When asked about her biggest challenges with gardening, she replied, “It’s a tie between aching muscles/joints and controlling weeds. When you have irrigation, weeds are a much bigger issue than they are in other valley settings. I go with the advice of another experienced and wise Master Gardener, Faith Roberts. Once when I was complaining about my challenges, she looked at me with a puzzled expression, and said ‘Don’t worry about it!’ Great advice as I look over her perfect patch of herbs, flowers, and veggies with envy!”



Sharon’s love of flowering gardens has led her to concentrate on planting for pollinators, especially bees and butterflies. A few years ago, she attended a presentation by Prescott Master Gardeners Cathy and Bob Gessner on the Monarch Butterfly. She accompanied them on one of their outings where she learned about tagging migrating Monarchs. She was hooked! The Gessners taught

Sharon that the only host plants for Monarchs are the various species of milkweed. Soon she was planting and starting seed for her own milkweed; her most successful milkweeds are the Arizona Milkweed (*Asclepias angustifolia*) and Horsetail Milkweed (*Asclepias subverticillata*). Now, she shares plant starts and seeds with various groups including donations to recent Monsoon Madness events. Sharon’s Butterfly Garden is a registered Monarch Waystation, which requires a commitment to planting milkweed as well as other sources of nectar for all pollinators. She also participates in several “community scientist” projects, collecting data on Monarch migration through central Arizona.

When Sharon is not propagating milkweed or tagging butterflies or tending her flock of hens, she enjoys photography, quilting, hiking, camping, birding, and especially travel. Last year, Sharon and Bill trekked to the Monarch Preserves in Central Mexico. Luckily, their tour ended just before the first two cases of COVID were reported in Mexico.



Sharon is now preparing to host her own produce table at the Verde Valley Farmers Market in Camp Verde for this coming season. She is very familiar with the Camp Verde market after having volunteered with the Master Gardeners for several years at the MGA information table, and last summer having helped with traffic control due to COVID restrictions. It’s a small market with very enthusiastic local growers and customers. Sharon plans to sell produce from their vegetable garden and orchard, eggs from the hens, and various pollinator plants that have been started from seed. Her goal is to use proceeds from the sales to contribute to various causes important to her and Bill, including the MGA scholarship fund. Sharon invites all Master Gardeners to stop by her “All Cooped Up Farm” table!

Her thoughts on the future of the Master Gardener program: “I hope the organization can encourage lots of opportunities for face-to-face social contact when COVID restrictions end. By the end of May, we will have two years of new associate members who have graduated during COVID restrictions. I believe we need to get to know them in person to encourage their participation in MGA.”

As she says, “Gardening is cheaper than therapy, and you get tomatoes!”



# Arizona Native Plant: *Chamaebatiaria millefolium* or Fernbush or Desert Sweet

by Nora Graf

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Mid-summer is a hard time for plants in Arizona. Hot, sometimes humid, sometimes, rain, sometimes not, so plants suffer. If you are looking for a plant that can not only can bloom during it,

endure our summers but also Fernbush may be a good choice.

This native shrub has bright white, fragrant sticky flowers which turn into attractive seeds. The flowers cluster at the tip of the branches. They are five-petaled with an abundance of bright yellow stamens which look rose-like. Leaves will turn yellow in the fall. Fernbush is a member of the rose family—no thorns though. It blooms through July, August and September.

The leaves are feathery looking with fronds of small leaflets, aromatic, gray-green in color, and glandular and sticky. Glandular means the plant secretes one or more products. Older leaves drop during the winter exposing a smooth russet bark. In colder areas, it may lose all of its leaves. It can grow up to 6-8 feet tall and wide.

In its native habitat it can be found on dry, rocky mountain slopes, so if you are planting it in your yard, find a place that has sun or partial shade, good drainage and an alkaline soil. Stay away from heavy clay soils as it prefers sandy or loamy soils. It grows best in nutrient-poor, dry gravelly slopes. Avoid being too kind to it as it thrives in harsh environments. Don't give it too much water or fertilizer once established. Extra water may be needed depending on the rain. Most of the time it should be fine on its own. One source called it a "tough-as-nails" plant.

Pruning should be minimal. If you don't water too much the only pruning it needs would be a light shearing of 2 to 6 inches when the plant is dormant.

This will create a nice thick dense mounding shrub— or don't prune at all. You can even leave the pruned branches on the ground as mulch. Deadhead the flowers if you want but consider letting them go to seed.

New plants can be started from seed. Seeds that are very fine. Direct sow on the surface of the soil if the seeds are fresh. They will need to be wet-cold stratified for 3 months if the seeds have been stored. It can also be propagated by root hormone-treated cuttings and by dividing clumps when the plant is dormant.

Like most members of the rose family, the flowers attract butterflies, birds, and bees but the plant is deer resistant. Deer will eat it but prefer other plants. They do attract lots of insects so it would be best to plant them away from areas where people are coming and going.

It can handle full sun, be used as a hedge, needs minimal pruning, doesn't need much water, is a good insect plant, likes your worst soil, and is tough as nails. What more do you need in a landscape plant? Fernbush is available commercially. If your nursery doesn't carry ask to see if they can order one or they can be purchased online.

In its native habitat, it can be found in Arizona, California, Idaho, Nevada, Oregon, Wyoming and Utah. In Arizona it is found in elevations from 4500 ft to 8000 ft. The plant provides cover to a variety of birds and small mammals.



# *The Sunflower and its Associates*

by Nora Graf

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I have given the wild sunflowers free reign in my yard. They are kind of big and awkward looking and not very attractive after blooming has finished except for the treasure trove of birds that come

to feed on the seeds. Waves of Goldfinches sweep through and over several weeks they consume thousands of sunflower seeds. Sunflower seed season at my house is pretty exciting. I'm happy to leave the ugly stalks up just so I can see the birds. The point is that sometimes we kind of forget some of the old-timers in favor of the latest thing. Sunflowers are one of the old-timers. I don't just mean that giant flowering stalks that are a favorite of children and people who want to grow very big things, I mean an entire family of plants. Zinnias, asters, echinacea, rudbeckias, cosmos, marigolds, dandelions, thistles and safflower are just a tiny fraction of the family and they are all insect and bird feeding grounds. Even the hated thistle (for those that don't know, artichokes are a thistle) is a magnet for insects and birds. In one "best plants for pollinators" lists I looked at, 7 of the 10 plants listed were all in the sunflower family.



Just to be accurate here, the official name of the family is Asteraceae. One of the defining features of the family is what we call a flower is actually composed of many separate flowers. For example, each petal and each of the funny looking things in the center are an individual flower, called florets. The flashy petaled flowers are called ray flowers while the less attractive flowers in the center are called disc flowers. Each floret makes one seed. Some plants may only have ray flowers or disc flowers. The common sunflower has both. Members of the sunflower family produce large quantities of pollen and nectar which attracts nectar-feeding birds like hummingbirds and all sorts of insects. Many flowers mean many seeds which attract birds, rodents, and even deer, javelina and bear. Some of those aren't the most welcome guests but members

of the Asteraceae family are a high-value plant for wildlife and should be considered if you are trying to create a pollinator or wildlife garden.

Most of these plants are very easy to grow. Many can be seeded directly in the soil. Just water and wait. It isn't long before little plants are poking their heads out. They are not drought tolerant for the most part and you will have to water them regularly. Many bloom during the hottest parts of the summer and can brighten any garden. It's ok to deadhead the flowers for a while but as it gets close to the end of the season, start letting them go to seed.

Flower breeders are always trying to create new, exciting, exotic flowers. If you want to help pollinators and birds run in the other direction. Stick with the old-fashioned, flat simple flowers. Plant breeders keep wanting to add more petals but scientists have done some research and it turns that as breeders add more petals and change shapes the fewer pollinators are attracted. Pollinators prefer simple flat shapes. A study done with Echinacea found that those closest to the original wild varieties attracted the most insects. In the case of the sunflowers the center florets are mainly used as a nectar source for butterflies while a variety of solitary bees collect the pollen. The newer varieties often produce less nectar and may make it difficult for birds and insects to reach the nectar or pollen.

Asters includes asters, gaillardias, and dahlias, among others. Asters provide both pollen and nectar to a wide range of insects.

Another group in the family have brush like flowers and includes varieties like Globe Thistle and Knapweeds. (Some knapweeds are classified as noxious weeds, so avoid those.) All of these bring in bees, hoverflies, and butterflies.

If you would like to include some bright color into a garden remember this family of plants as a great way to help the local insects and birds.

Interesting Fact: the original members of this family may be 50 million years old. Fossils found in Argentina date to the Eocene Epoch, 56 million to 34 million years ago.





# Congratulations

*for completing your first 50 hours*

*Katrina Manning—mentor: Laura Mineer  
Rosemary Zimmerman—mentor: Betty Loos  
Colleen Murphy—mentor: Sharon Marmaduke.*

## Don't Forget!

**September 18<sup>th</sup>  
MGA Recognition Picnic &  
Retirement Send-off for Jeff.  
Watch for email messages.**



### Yavapai Gardens Searches

Because the Yavapai Gardens newsletters are on our website as pdf files, they are not searchable. However, the specific horticulture topics found in each newsletter are now noted next to the newsletter link. Hopefully this will help if you are looking for a particular subject. Thank you Jo Glaves and Kim Corcoran for compiling the data. <https://extension.arizona.edu/yavapai-gardens-newsletters>

### 2020 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

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MG NEWSLETTER



## *Next Meetings*

August 18th, still on zoom. Mary Barnes will send out information.

Sept 18 Jeff's Retirement send off and Recognition Picnic