



Mohave County Master Gardener Program

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Table of Contents

Featured Article "Strangers in the Roses"	1
Amy's Corner	2
2019 Luncheon Honors	4
Luncheon Photos	5
Bullhead City Master Gardeners	6
Kingman Master Gardeners	8
Lake Havasu City Master Gardeners	9
"Eucalyptus Kruseana"	10
Calendar	12

Featured Article

by

Nancy Lea Sandy, Kingman Master Gardener

Strangers in the Roses



It always seems that my roses welcome spring with everything they have. That first bloom every year is always the most spectacular, and this year was no exception. My roses burst into bloom with a bouquet on every bush. I was not disappointed. I was, however, busy, and beyond an admiring glance each time I pulled into my driveway they were left pretty much on their own. I did notice a few days ago that some of the blossoms looked a little ragged around the edges. We had a lot of wind recently so I blamed that and went about my business. My

roses went downhill fast. The buds were deformed and many failed to open, the ones that did look scorched and misshapen. First a few, then a lot. I needed to investigate, NOW!

The infestation was so bad I didn't even need a magnifying glass to see the culprits. I had thrips.



My 'go to' treatment for soft-bodied insect pests is a few drops of soap in a gallon of water. I sprayed every blossom on every bush. Thrips live in buds and blossoms and pupate in the soil. The blooms that were heavily infested, I removed and sealed in a plastic bag in the trash. I drenched the ground beneath the bush with the soap solution as well.

While I was spraying, I noticed many beneficial insects that had arrived to help me get this problem under control. I was very careful not to do them any harm. Among my helpers were a lone ladybug, and many predatory wasps and robber flies.





They are indeed thrips. The banded thrips, *Hercinothrips femoralis* (left), and the black hunter, *Leptothrips mali* (right). Both are predatory eating not only other thrips but also aphids, mites, and other tiny insects. They are efficient hunters and can devastate a population of their destructive cousins in a short amount of time. Unfortunately, they are not as successful at reproducing. The females usually only lay one or two eggs on the underside of a leaf, near the stem. In the warm summer months, their life cycle can be completed in as little as 10 days.

I have always thought that one of the nicest things about having a garden is the little surprises along the way. The hummingbird nest in the honeysuckle, the delicious scent of irises you didn't know were fragrant when you planted them, the evolving kaleidoscope of color as the annuals reseed themselves in new locations each year...and my favorite, meeting the nicest insects when you least expect to.

References: gardeningknowhow.com; Mid-Atlantic Orchard Monitoring Guide, L.A. Hull and R.L. Horsburgh; Entomological Society of America (web site)

Then, I met the stranger. Two of them, actually. Almost as small as the ravenous thrips, the new kids on the block actually looked like thrips but they were nothing I'd ever seen before. Research mode kicked in and I spent a pleasant morning tracking down their identity and life-styles.



Amy's Corner

Amy Nickel, Instructional Specialist Sr.

After a long, cool, wet spring, we seem to be back to “normal” with regards to weather in Mohave County. It was the first time in 17 years of living in Lake Havasu City that I managed to make it through the entire month of May without turning on my air conditioner. Now, just one month later, my rain barrels have been tapped dry, and 100+ degree days have me camping out inside watching the final remnants of my garden wither away. Such is summer in the desert.

Spring was a busy time of year for the Master Gardener program. We saw our 2019 Urban Home Horticulture Class wrap up in mid-April, with 23 students successfully completing the class, 20 of whom intend to continue on with the Master Gardener program as associates. The majority are located in Kingman where the classes were held, but Bullhead and Lake Havasu City will be picking up two associates each from this cohort as well. Next year, the classes are scheduled to be held in Lake Havasu City, so be sure to spread the word!

In mid-May, we held our annual Master Gardener Recognition Luncheon at Garibaldi's Italian Restaurant in downtown Kingman. A special thanks to Administrative Assistant, Kit Kudukis for arranging the venue for us. I know I wasn't the only one who was impressed with the gorgeous renovated historic building, warm hospitality of the staff, and abundance of amazing food. In addition to adding 10 new certified Master Gardeners to our ranks, 14 veteran Master Gardeners received pins for more than 8,000 volunteer hours combined, and three individuals were awarded Emeritus status, having served as certified Master Gardeners for 10 years with a minimum of 850 volunteer hours. See the full list of recognitions below.

Those who attended the luncheon also enjoyed a talk on basic hydroponic systems, by Cooperative Extension Research Specialist, Jennifer Collins, followed by a raffle for an Aerogarden Sprout (won

by Gail Key of Lake Havasu City). We learned that Andrew received a grant to develop a hydroponic demonstration garden, which is currently on display in the lobby of the Cooperative Extension office. It features three distinct hydroponic systems, and is growing a variety of herbs and leafy greens. Be sure to stop in and check it out next time you are in the neighborhood!





I am also pleased to announce that with the help of Kingman Master Gardener, Nancy Sandy, we now have a seed library housed at the Cooperative Extension Office. Nancy spent many hours sorting hundreds of packets of donated seeds both alphabetically, and by type - warm veggies, cool veggies, herbs or flowers. They are housed in two vertical file cabinets located in the Master Gardener meeting room. Seeds are available at no cost to the public, and we hope to offer workshops on seed collection in the future so we can begin to refine the library with native seeds, as well as vegetable and herb varieties that are proven to work locally. Keep us in mind as a resource when planning your fall garden. Until then, I wish you all a relaxing and rejuvenating summer.

2019 Mohave County Master Gardener Recognitions

Newly Certified MG's	250 Hours	500 Hours	750 Hours	1000 Hours	2500 Hours	Emeritus MG's
Jack Achttien	Pat Backman	Nancy Sandy	Sherry Buie	Dan Alberts	Dottie Holman	Leroy Jackson
Barbara Burns	Izzy Brood		Bob Clotworthy			Mary Johnson
Ed Betts	Cathy Bryan		Irene Rose			Cindy Toepfer
Sue Betts	Jerry Cornell					
Mary Cervantes Garrison	Sharon Gomez					
Naomi Jack	Shelley Lossing					
Meredith Langlois	Victoria Metz					
Becky Leisle	Gail Shaw					
Susie White						
Rita Wolf						





Bullhead City Master Gardeners

Debbi Miller, Coordinator
Leroy Jackson, Co-coordinator
Bonnie Muir, Secretary
Bill Stillman, Scribe

Greetings from the Bullhead City area. Once again we are preparing for our summer hiatus as the triple-digit days begin, and our gardens begin to wilt. It has been such a beautiful spring with wildflowers in abundance, and our vegetables continuing to produce far longer than usual.

The milder weather seems to have reduced the hotline calls over the past three months, though they usually ramp up as soon as the sustained heat (both day and night) begins.

We are so excited to have seven new certified Master Gardeners this year as well as two enthusiastic Associates. This brings our group to 21, a size enabling us to take on the school garden programs and to spread the workload without suffering burn-out. This past fiscal year we contributed over 1600 hours of volunteer time, and spent nearly 400 hours of educational time, and should exceed this year's totals as we add new school gardening programming to our mix of activities.

Our two monthly programs at the Library continue to be our major activity throughout the year. Our 10 Home Garden Days draw a good audience of regulars and newcomers (many of whom become regulars!) anxious to learn more about gardening in the desert. These informal morning sessions cover whatever topics the audience questions dictate, but almost always include information about irrigation, citrus, fertilizing, vegetables and plant identification. Another ever-popular question---“does anything grow here?”-- is usually the first thing the new area transplants ask after arriving from more horticulturally-friendly climates.

Generally we see the newcomers about 4-6 months after they have moved to the area and have watched their first attempts at planting struggle and die. It's encouraging when they continue coming and proudly show and tell everyone about their successes! Sometimes just the realization desert gardening really IS different and challenging, and we're here to hold their hand and help, is enough to make them smile and persevere! Our last Home Garden Day is in June, and we pick back up again the second Thursday in September.

Our Library programs are more formal and cover pre-selected topics determined at our May and June meetings, in time to get the year's program printed for us and the Library to distribute. Getting publicity in the newspaper has been challenging this year due to editorial changes and their shrinking number of pages, so attendance has varied, but averages over 31 people per month.



One of our spring programs featured Bob Morris, popular blogger (xtremehort.com/blogspot) and retired professor from University of Nevada Cooperative Extension. He also teaches sessions for the Mohave County Urban Home Horticulture classes, and he is always educational and entertaining. His April workshop got rave reviews, and we hope to have him back again.





Our March program on Irrigation is always popular as well. Bill Stillman, Leroy Jackson and Dennis Le-sowsky are all able to discuss this crucial subject in ways the layman can understand. We still have our share of homeowners who water everything “twice a day for five minutes”, but our annual program on irrigation is a big help in educating the masses of gardeners here. Improper irrigation certainly is the leading cause of plant stress, and death, in our part of Arizona. If we could correct only one thing it would be teaching gardeners how and when to properly water!

Our May presentation was on Propagation, another popular subject near and dear to our hearts. We covered seeds, grafting and all manner of “rooting”, and included plant-part giveaways for the audience to take home and propagate on their own. Because of the summer heat, we choose not to do programs from mid-June up into September.



We have two new Emeritus Master Gardeners this year. Mary Johnson, our Hotline Coordinator, and Leroy Jackson, our Co-Coordinator, joined Bill Stillman with Emeritus status. Congratulations, and thank you to each of them. The three of them are among our most active volunteers, and we appreciate all they do.

We are looking forward to working with both Bullhead City Middle School and Academy of Building Industries (AOBI) with their horticulture programs this year. We thank Andrew, Amy, and the Mohave County Cooperative Extension for providing us with the means of accomplishing the necessary finger printing and background checks to make this possible. Seven of us will be working on a rotating basis with these schools, and we hope to add others as our schedules permit. AOBI is the charter high school that converted an old school bus into a greenhouse, and we have already met with their science teacher to help with some of the heat and air flow problems gardening in a metal bus causes, and hopefully we will be able to help them increase their production significantly this year. Until then, we will enjoy the downtime that summer brings to desert gardeners.



Kingman Master Gardeners

Linda L Reddick, Coordinator
Melissa Palmer, Co-Coordinator

Summer is officially here, yeah! It was a very strange spring to say the least; cold, then hot, then cold. I was beginning to think (and so were my plants) that summer would never stay for more than a day or two. The temperature is fabulous at the moment, but alas, I am sure it will get hot sooner or later.

April was a busy month, like every month for the Kingman Master Gardeners. We started it off with a workshop at the Community Garden. Bob illustrated irrigation, Victoria talked about seed starting, and I put my two cents in on cover crops and crop rotation. Attendance was fair, but those in attendance made very complimentary comments.

We had the final exam for the Urban Home Horticulture class, with many of the participants signing up to become Master Gardener Associates. Great news for all three locations! During the same week there was set up and staffing of our booth for the Kingman Home & Garden Expo. Cathy did a great job organizing everything, and kept us all straight. We had approximately 495 people stop by our display, with a variety of questions and concerns about gardening that we were able to help them with.

On May 11th Bob lead a hands on irrigation workshop. Deanna, a new Associate Master Gardener invited us to use her home to demonstrate how to set up and/or correct an irrigation system. Bob kept his presentation at a level that even novice attendees were able to understand. Attendance was good and comments were

excellent. Great job Bob! A few days later, on May 13th, Nancy lead a presentation at the LDS Church in Kingman, who had invited us to come speak on container gardening. Nancy & Gail covered potted plants, and I illustrated self-watering containers. Attendance was not as expected, however those who attended definitely went home with new knowledge.

We wrapped up the school gardening program for this year with a party for all schools. Several of the students wrote us thank you notes. Some were sad they would not be participating next year, as they would be moving on to Jr. High. Others said, "We'll see you next year," but before any of them left, they planted vegetables that will hopefully make it through the summer, and be entered into the fair in September.

June is here, as is the first day of summer, and the longest day in the year. We have an Integrated Pest Management workshop scheduled for June 29th. Since the bugs seem to be everywhere, I am sure it will be well attended. I know Bob is ready to tell everyone how to beat them!

Summer is a great time of the year, with vacations and trips to plan. Here's hoping everyone can enjoy it. Drink lots of water, and stay as cool as possible.

Regards,

Linda Reddick

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Jeffrey C. Silvertooth, Associate Dean & Director, Extension & Economic Development, Division of Agriculture, Life and Veterinary Sciences, and Cooperative Extension, The University of Arizona. The University of Arizona is an equal opportunity, affirmative action institution. The University does not discriminate on the basis of race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, or genetic information in its programs and activities. Persons with a disability may request reasonable accommodation, such as a sign language interpreter, by contacting Mohave County Cooperative Extension Office at (928) 753-3788. Requests should be made as early as possible to allow time to arrange the accommodation.



Lake Havasu City Master Gardeners

Dan Alberts, Coordinator
Sharon Gomez, Co-coordinator

Greetings of the summer season to all; the time of year when gardening activities are accomplished in the morning hours here in Lake Havasu City. I personally prefer the hours of 6 to 8 am to do what I have chosen for the day. Another bonus is that in and around my residence there is an abundance of wildlife that is active at this time. I have observed numerous species of birds, along with lizards, rabbits, ground squirrels, and coyotes.

Since the last newsletter, the Lake Havasu City Master Gardeners have welcomed two new associates, Mary Moody and Gwen Martin. Rita Wolf has become our newest Certified Master Gardener. I would like to welcome each one to this group and look forward to having your participation in our gardening events.

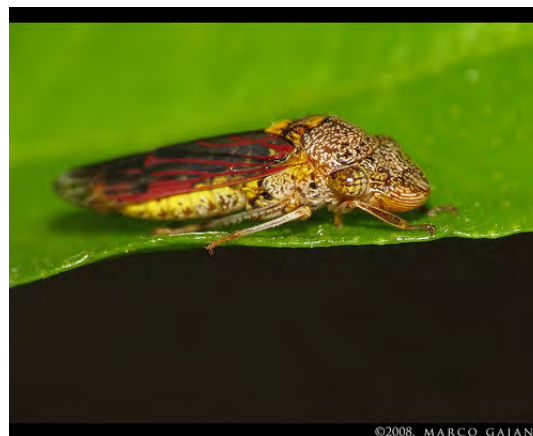
Home Garden Day is the only event on our agenda here in the heat of summer. This event continues to attract home owners that have recently relocated to Lake Havasu City and need answers pertaining to gardening questions, which are happily provided by the Master Gardeners.

Recently I was contacted by a friend that works in the nursery industry here in town, about an insect infestation at the home of one her customers. The home owner had recently purchased several citrus trees at a local reputable retail nursery, and had planted them on the property. Several days later from what I was told, they noticed insects on many of the plants in their yard. This led to the suspicion that perhaps the citrus trees were host to the invasive insects.

I visited the home after researching the insect from the description given to me, and determined that it was a smoke tree sharpshooter, which is a leafhopper.



Smoke Tree Sharpshooter is courtesy of Yavapai Cooperative Extension. <https://cals.arizona.edu/yavapai/anr/hort/byg/archive/oleanderleafscorch.html>



Homalodisca is "Homalodisca sp. (Hemiptera: Cicadellidae)" by Marco Gaiani licensed under CC BY-NC-SA 2.0

This insect had affected the leaf structure of each plant that it was in contact with. It has a straw like mouth that it inserts into the xylem of each plant, drawing fluid from the plant. The effect is the leaves turn brown, and fall off the plant.

I also observed that there were eggs that were laid in rows on the underside of the leaves that were still intact on the plant. My recommendation for control was the use of a systemic insecticide. This experience was an excellent example of how, as Master Gardeners, we are always given opportunities to learn something new.

Have a good summer!



Eucalyptus Kruseana

Debbie Miller, Bullhead City Master Gardeners

Eucalyptus kruseana is a large shrub or small tree which is seldom seen in gardens in our area. This is really a shame, since it is a perfect plant for this climate and is uniquely different in appearance from the more typical desert trees and shrubs we generally see locally.

Eucalypts are native to Australia, and there are estimated to be over 700 species of them, over 150 of which are successfully being grown in California and Arizona. They are part of the Myrtaceae family, which includes some 3300 different trees and shrubs, including the eucalypts as well as allspice, clove and guava trees. A family characteristic is that all are woody and contain essential oils that can be used for a variety of products and applications.



E. Kruseana is more commonly known as bookleaf mallee or Kruses's bookleaf mallee. The word "mallee" refers to the growth habit of certain eucalypt species which grow with multiple stems springing from an underground lignotuber, usually growing to a height of no more than 30 feet. Mallee also refers to an electoral district within Australia which was named after the mallee woodlands and shrublands considered one of Australia's major vegetation groups.

Unlike the majority of the eucalypt species, the mallees are smaller, hence the "shrub" designation for many. The size, therefore, makes them friendlier to our typical smaller lot size. In addition, they take full sun and are frost tolerant, require very little maintenance, have evergreen foliage, require minimal water but decent drainage, tolerate our alkaline soils, have beautiful smooth dark bark which peels as the tree gets older, and live 40 to 60 years. They grow up to a foot per year, or more, depending primarily on how much supplemental water they get.

What is special about the *E. kruseana*/bookleaf mallee is its foliage. The leaves are round and silver-blue in color and are crowded along the branches. There are fuzzy yellow flowers which circle the branches in fall and winter. The stems, often including the flowers, are used by florists in arrangements, and dried branches are sold at hobby stores in bunches to be used in indoor arrangements. These latter branches are sometimes dyed dark red or green. They do not have the distinctive "eucalyptus" smell of other eucalypts, which may be a drawback depending how much you like that odor.

I was fortunate enough to discover the *E. kruseana* at a local nursery, now closed, when we moved to Bullhead City nine years ago. I fell in love with the foliage and found locations for two of them on our



then-bare lot. Each one is now about 14 feet tall, and I prune them at least yearly in order to dry the foliage, but they still provide great wind-breaks, a benefit I hadn't considered, and didn't realize I needed! Each of my trees is single-trunked but branches out quite close to the ground. Mine are currently nearly as wide as they are tall, but since they respond well to being pruned, their width could be adjusted if necessary. They are not located where they provide shade except to their immediate area, but left unpruned and closer to a structure they might even do that. Obviously in the Australian outback they do not get pruned at all, but I like mine more open than dense, so I do hack away at them. I also leave the peeled bark on the tree, since I think it adds to its character!

After the branches are cut and dried they turn a bronze color, and remain that way. I dry them by smashing the ends of the cut stems and submerging them in a mixture of one part glycerin to two parts boiling water. I usually have at least 4 inches of glycerin mixture in each container, and often have to add more as it is absorbed. I have tried adding red dye, and was somewhat successful using plain old food coloring, but it took about $\frac{3}{4}$ cup (bought in bulk) added to each 3 cups of the glycerin solution. I had tried more exotic types of dye, but they weren't absorbed as well.

I use fairly attractive glass vases for the drying process, since the stems sometimes remain in the glycerin bath 4-6 weeks, and I dry them in my house, not the garage, so they have to look decent while they are being processed. When the leaves stop flaking off and become somewhat rubbery, they are dry enough. Occasionally the water gets murky and starts to smell, so if that happens, I just toss it (outside, not through the plumbing!), mix up a new batch and re-submerge the stems. I buy glycerin by the quart online because the vegetable glycerin sold in drug stores for medicinal purposes is more expensive.

I have not tried to dry my eucalyptus by tying the cut stems with twine and hanging them upside

down in a cool place, since I don't have a convenient place to do that. Perhaps it would keep the stems more green, though I suspect bronze is the default color of un-dyed dried branches.

I have my dried eucalyptus displayed all over the house. It is made into wreaths, and featured in various kinds of large and small decorative arrangements. When they get too dusty (which takes years!), they get replaced.



Perhaps part of the reason *Eucalyptus kruseanas* are not planted more prevalently in Mohave County is that there are not a lot of places to get them. Seeds are available on the internet, and Australian Outback nursery in Tonopah, Arizona, grows them and sells to Lowe's. According to the local Lowe's, they take 2-4 weeks to get once the customer comes in to order them. They are called Bookleaf Kruses's Mallee at Lowe's, and are listed as a small tree or shrub. Other mallee's are also available there and most of those are listed as medium trees.

Further information is available at:

- www.selecttree.calpoly.edu
- www.australianoutbackplants.com
- www.davesgarden.com
- *Trees and Shrubs for the Southwest*, Mary Irish, TimberPress Inc.
- *Sunset Western Garden Book*, various editions



Mohave County Master Gardener Spring 2019 Calendar

July

- Tues., July 2: LHC Home Garden Day, 11 a.m.-1 p.m.
Lake Havasu City Library, 1770 McCulloch Blvd.
- Sat., July 13: KGM Workshop "Kingman Area Gardens & Landscapes," 1:00 pm
Mohave County Cooperative Extension Office, 101 Beale St., Kingman
- Thurs., July 25: KGM Master Gardener Meeting, 6:30 p.m.
Mohave County Cooperative Extension Office, 101 Beale St., Kingman

August

- TBD: Kingman Area School Garden Clubs will resume this month,
Contact Linda Reddick for more information
- TBD: Bullhead City Middle School and AOBI Charter School Garden Clubs will begin
this month, Contact Debbie Miller for more information
- Tues., August 6: LHC Home Garden Day, 11 a.m.-1 p.m.,
Lake Havasu City Library, 1770 McCulloch Blvd.
- Thurs., August 22: KGM Master Gardener Meeting, 6:30 p.m.
Mohave County Cooperative Extension Office, 101 Beale St., Kingman

September

- Tues., September 3: LHC Home Garden Day, 11 a.m. - 1 p.m.
Lake Havasu City Library, 1770 McCulloch Blvd.
- Tues., September 10: BHC Master Gardener Meetings, 6 p.m. – 7:45 p.m.
Bullhead City Library, 1170 Hancock Rd.
- Thurs., September 12: BHC Home Garden Day, 10 a.m. – Noon
Bullhead City Library, 1170 Hancock Rd.
- September 12-15: Mohave County Fair, 10 a.m. - 10 p.m. Thurs-Sat, 10 a.m. - 6 p.m. Sunday
2600 Fairgrounds Blvd., Kingman
- Tues., September 17: LHC Master Gardener Meeting, 4:00 – 5:15 p.m.* *Note New Time!!!*
Lake Havasu City Library, 1770 McCulloch
- Thurs. September 19: BHC Presentation "Focus on Vegetables," 2:00 p.m.
Bullhead City Library, 1170 Hancock Rd.
- Fri., September 20: DEADLINE FOR FALL 2018 WIND & WEEDS ARTICLES
- Thurs., Sept. 26: KGM Master Gardener Meeting, 6:00 – 8:00 p.m.
Mohave County Cooperative Extension Office, 101 Beale St., Kingman

KEY: Bullhead City (BHC) Lake Havasu City (LHC) Kingman (KGM) ALL

Summer 2019 Wind & Weeds Assembled by Shelley, Master Gardener

