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Featured Article by
Debbie Miller, Bullhead City Master Gardener

The Boojum Tree, an unexpected surprise

You just never know what you are going to see when you visit the client’s property on a Hotline call. It’s a pretty safe bet you’ll discover improper irrigation methods are at least a partial cause of whatever problem the client is having, but many calls turn out to be interesting for reasons other than what the original call was about.

A recent call to look at some citrus trees “not doing well” in Ft. Mohave is a case in point. The owner requested our citrus specialist, Bill Stillman to come look at his citrus trees. We always try to involve more than one Master Gardener on a site visit, so Leroy Jackson and I tagged along. I went mostly because I am sick of being cooped up, and have had both vaccinations, as have Bill and Leroy.

Thank heavens I did! I love cactus and all related things, and the owner’s gardens were just full of them. He had begun planting the property over 30 years ago when they built the house. Many of the “traditional” columnar cacti were huge, and several were in pretty bad shape since he had lost interest in watering on a regular basis many years before. There were, however, a couple of healthy 3-foot cardons, two tall unarmed saguaros that were still alive and some mid-size totem pole cacti scattered around. In addition, there were stressed and less-stressed examples of the more common columnar cacti—San Pedro and what nurseries generally label Peruvian Apple cactus. Most of his barrel cacti had not survived.

The reason for my excitement, however, was a plant I’d only seen pictures of—a very tall boojum tree (fouquieria columnaris, also called idria columnaris). I had tried to grow this ocotillo sister-plant ten years ago when we first moved to Arizona, and my 6” potted specimens lasted about a year. I hadn’t tried again since becoming a Master Gardener, and I had never seen one taller than about one foot! I knew it was described as an upside-down carrot, and is known as Cirio (meaning taper or candle) in its native Baja. The tall boojums are seldom seen outside of Baja and a small United States section of the Sonoran desert. The plant is not listed in any of the editions of the Sunset Western Garden Book I own, but the author Mary Irish does mention it in at least one of her books on Southwestern horticulture (“Gardening in the Deserts of Nevada”).
Interestingly, there are three surviving boojum trees (of several originally planted in the late 1920’s) on the University of Arizona campus. They are in the Joseph Wood Krutch Garden, and one of the naturalists involved in creating this garden, Godfrey Sykes, was responsible for giving the plant its common name. Supposedly he got the name “Boojum” from a Lewis Carroll poem, “The Hunting of the Snark”.

The growth rate of the plant in Baja is about one inch per year, but the University of Arizona plants have averaged 3 inches of growth per year, with the tallest still being under 40 feet tall. Mature boojums can supposedly reach 80 feet “in the wild”. The one I saw on the Hotline call was perhaps 25 feet tall. Other United States gardens with adolescent or mature boojums include San Diego Zoo’s Wild Animal Park, Tucson’s Ghost Ranch Lodge, the Phoenix Desert Botanical Garden and the Huntington Botanical and Rancho Santa Ana Botanical Gardens in Southern California.

Based on my experience, getting them established and ready to plant in the ground is “iffy” at best! Seeds are available at various online venues, but given the slow growth rate of these plants, this would not be an option for me! The plants, when available, are expensive—anything with any size is said to cost about $1,000 per foot, and the only one I found on the internet looks to have a trunk about 2 inches tall. It did have some nice branches, so we’ll see when it gets here. (Yes, I couldn’t resist, for $50 and free shipping!) If I had a young child I’d get them busy planting boojum seeds now in hopes the sale of the plants later on would help with college costs.

Boojums grow in winter and are dormant in summer. They need well drained soil and can exist on very little water, though weekly watering in winter is suggested in our rain-starved Mohave climate. They do well in our horrible soils, but
I’m fairly certain the faster growth that U of AZ experienced could be attributed to some supplemental fertilization and irrigation now and then. Likewise, the other venues mentioned above probably do some supplemental hydration and add a few nutrients in the winter as well. Once all the leaves fall off in April or so, supplemental water should be suspended until October or when the leaves start to reappear. Proper irrigation in winter results in regularly spaced radial sets of branches and leaves. A sign that not enough water was applied in winter to sustain the plant through the summer is wide, or irregular, spaces between the branches. Boojums seem to grow better in the more humid atmosphere of the Sonoran desert, but this plant in Ft. Mohave has survived for over 30 years despite more arid conditions.

The neglectful watering of our Hotline client didn’t appear to have adversely affected his Boojum tree, though the more irregular spacing of the branches in the top section may be the result of his irrigation lapses in recent years. It had not been affected by the strong winds we get in the Bullhead City/Ft. Mohave area, so it must have been planted in a spot that was somewhat wind-protected by the structures on the property. Like its close relative the *Fouquieria splendens* (ocotillo), the plant does have intermittent flowers, but these are creamy yellow, not red, and occur in summer or fall.

Although this probably isn’t what anyone would call a pretty plant, it is one of the most interesting succulents I’ve ever seen, and it was fascinating to learn of its relationship to the University of Arizona. Since the *Fouquieria* species has so few members, it was an unexpected treat to see this variety and do the research to find out more about it.
It’s been an unprecedented year, to say the least. We’re a little over a year since all of our lives dramatically changed. While we aren’t quite back to “normal,” I see positive signs Mohave County, Arizona, and the rest of the nation and world are trending to a better space. I hope all of our Master Gardener community have remained safe and healthy. However, we have a little more work to do before we are able to resume regular activity.

Mohave County Cooperative Extension gained approval to transition to Phase 2 operations in the middle of March. Phase 2 allows us to meet indoors with groups of less than 25 people, and less than 50 people outdoors. Regardless of vaccine status, or if you’ve already contracted Covid-19, face covering and social distancing mitigation strategies will remain in place. These are University of Arizona policies, and as representatives of the University, we will abide by their policies. We hope to move to Phase 3 when the Mohave County Covid-19 situation allows. More information about Cooperative Extension’s Phased Operational Plan can be found at: https://extension.arizona.edu/phased-operational-plan.

I’m sure you have all received the news by now that Amy Nickel, MCCE MG Program Coordinator, has resigned to take advantage of a different educational opportunity. Amy was a great asset to MCCE, and while we will miss her immensely, we wish her well with her next chapter. I’m confident she will be just as successful if not more so with her future opportunities. MCCE will be looking to fill the vacancy as soon as we can because as many of you know, I certainly need the help.

Lastly, I hope many of you have taken advantage of some of the opportunities Covid-19 has allowed. I hope many of you used the time to recharge your batteries, work and improve your own gardens, and get some of those other projects done you just never had time to finish. Or not, I learned over the year some of the projects I “didn’t have time to do” were really just projects I had little or no desire to do… like deep clean my house and weed my yard.

It will take us a little while to transition into full operational mode. It’s expected after over a year off. But I hope we regain that MG energy soon and get back to doing what we do best in helping each other and the citizens of Mohave County with their gardening challenges. Thank you to those that continued to answer the calls throughout the shutdown, I really appreciate the help.

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 the University of Arizona, Mohave County Cooperative Extension office at (928) 753-3788. Requests should be made as early as possible to allow time to arrange the accommodation.
The first quarter of 2021 has seemed a lot like the last nine months of 2020. Except for a few Hotline calls and a recent in-person seminar on Irrigation, the Bullhead City Master Gardeners have done essentially nothing. We are hoping we have a nucleus of willing Master Gardeners who remain active when the University of Arizona Cooperative Extension reopens and we are able to start our programming in the community again. The recent vote by the Mohave County Supervisors to reduce the restrictions on library access is a positive sign, and we hope our Home Garden Days and Library-based workshops will be allowed in the near future.

The Hotline calls from clients were primarily handled by phone calls and/or emails, and were fairly routine. The on-site call to the client whose orange trees were in stress also resulted in the article on his Boojum tree in this issue of Wind and Weeds. The site’s orange tree and other plant problems arose mostly from improper irrigation so our advice to the homeowner was simply giving instructions on how to assess the water needs of various plants on the property and irrigate accordingly. This same educational process was offered to other phone/email clients as well, since all the other issues this quarter seemed to be water-related also. Wind protection was also discussed a bit in some instances since we have had more than our fair share of days with heavy winds this winter.

Bill Stillman had been invited by the Mohave Community College (Kingman) and the Kingman Community Garden (DIG) to demonstrate and instruct the attendees on setting up and using an irrigation system. In assistance for this demonstration were Leroy Jackson and Debbie Miller, Master Gardeners from Bullhead City. The demonstration included drip irrigation and the materials needed to set up a drip system, using and assembling PVC piping, how to use a soil probe and how to determine plant irrigation needs. Also discussed were water movement in various soils, root zones, how to estimate irrigation needs throughout the year and automation of an irrigation system. The attendees asked lots of questions. We were prepared for those questions. We were not prepared for the very nippy Kingman weather, however, as shown by our lightweight Bullhead winter attire in the accompanying picture! The MCC and DIG attendees were very enthusiastic and receptive, despite the wind and temperatures.

Let us hope there will be more activity to report by June!
Kingman Master Gardeners

Linda L Reddick, Coordinator
Melissa Palmer, Co-Coordinator

Happy Spring to everyone. I am sure we will all enjoy the spring flowers and hopefully the wild flowers. What an unconventional way to start 2021 - strange weather, hardly any much needed rain and still on lock down.

For many of us I doubt we have actually had enough continual chill hours sufficient for our fruit trees. Then we experienced fruit trees blooming early and within the next few days a number of cold snowy days, oops, there go the blossoms, no blossoms, no fruit.

Due to the virus we have had very few client calls, and most of the ones we received were new comers to Arizona. The need to get back to having our workshops is definitely obvious. Most people do not understand they can not plant here the way the did in Virginia, Oregon or Florida.

There is a light at the end of the tunnel. We are planning to participate in the Home & Garden Expo. All of us are definitely excited for getting back into the groove and educating people. With the cost of groceries on the rise, more and more people are trying to grow their own fruits and vegetables, according to the major seed companies. We will be there to answer questions, give advice, and teach all who are willing to listen and learn.

Hang in there, we are family, we can overcome whatever comes our way.

Looking forward to Spring
Happy Growing
Linda Reddick
Kingman Area Coordinator

Mohave County Master Gardener Spring 2021 Calendar

April

April 23, 24 & 25: Kingman Home & Garden Expo, Mohave County Fairgrounds Kingman AZ
April 23 & 24: 10:00 AM to 6:00 PM
April 25: 10:00 AM to 4:00 PM

Spring 2021 Wind & Weeds Assembled by Shelley, Master Gardener
Happy Spring All! Easter is fast approaching and not far behind comes SUMMER!! Let’s hope Mother Nature takes heart on Arizona and doesn’t leave us with another summer from hell!

Like most Mohave County Master Gardeners, Lake Havasu has not been able to hold any events so far. Covid numbers are beginning to look better, so let’s all hope we’ll be up and running real soon! I also read the Mohave County Libraries may be opening soon!

We continue to receive numerous hotline calls and emails asking for assistance. Since July 2020, we’ve had over 50 calls on a variety of subjects. The greatest number received has been about irrigation. In Lake Havasu, the main advice from landscape companies given to residents is to water twice a day for 10 minutes, each time, every day. Or, the advice has been to water 20 to 30 minutes twice a day all year! REALLY?!!

We have many questions about citrus: fertilizing, planting, and watering. Last summer played havoc with so many citrus trees due to the extreme heat. Then again, watering was the main issue as well as the proper fertilization schedule.

Lake Havasu is a relatively young city and we are now beginning to see the impact of large trees and palms that were planted too close to structures, cement patios, driveways, and pools. We are beginning to receive calls about patios heaving, foundations cracking, and in one instance, a pool wall starting to cave because of large Sissoo and palm roots.

A couple of interesting situations occurred that we were not able to offer help. One woman had a six-foot sago in her entryway she wanted to give away, but needed removed. The other situation was a large 15-foot ocotillo which needed to be removed to make way for a driveway. The caller/neighbor wanted to try to move it, but the size and cost was prohibitive. It was suggested the caller would be better off purchasing her own ocotillo if she still desired one.

A variety of Lake Havasu Master Gardeners have stepped up to answer many other inquiries. From how and what vegetables to grow in our low desert, cactus identification, along with diseases and pests attacking plants. The real challenge continues to be the inability to go out on house calls for first-hand information about the resident’s concerns and questions.

Havasu MGs have been spending numerous hours joining webinars and various educational online seminars to further their knowledge of gardening. Subjects on veggie gardens, pruning, cultivating spring flowers and pretty much anything sent our way from the Extension office.

Many of our Master Gardeners have been working in their gardens to spruce up or repair the damage done from last summer. Tammy H. had to remove lantana, a citrus tree, an old bougainvillea, and three pygmy date palms planted too close to the house. Steve G. lives in a huge condo complex where he heads up the landscape maintenance. This is no small task, but he and his trusty helpers tackle projects large and small – separating agave pups, pruning shrubs and trees, and installing new plants where others didn’t survive the summer. Also, a number of large sissoo trees were removed due to their invasive root system destroying foundations. Plus, he makes certain the irrigation is always up and running correctly. I (Sharon G.) continue to add to the landscape design of my 1-acre property. Adding dirt mounds, irrigation, boulders, cacti and gravel along the east side. Plus, “planting” more metal art, saguaro ribs, and
cow skulls than plants to cut down on water usage. Spring has also included the normal pruning of lantana, yellow, red, and Mexican bird of paradise, trimming of dead agave leaves, feeding citrus trees and flowering shrubs. Irrigation needed to be checked and replaced with new bubblers and heads. I also have my own propagation nursery that has grown so large I’m thinking about having a plant sale. It takes over two hours just to water the pots by hand!

Our very talented Carol Bruch created a lovely gift to celebrate Dan Albert’s departure from the Coordinator position he held for seven and one-half years. Carol is gifted in so many ways and one of them is arts and crafts. She did a mosaic of tiles and different specialty items on a clay pot. The life and hobbies of Dan’s were depicted on the pot with colorful, iridescent tiles and various miniatures. His life as a Master Gardener, his years spent in Vietnam, and his love of off-road exploring the Mohave Desert were are shown on the pot.

I think you will agree Carol created a masterpiece for Dan to cherish for the rest of his life. I’m picturing this pot with a sharkskin agave somewhere around his pool for him to enjoy as he floats!

Now, Summer is fast approaching. I’m hoping and praying for a less intense summer with (dare I hope?!) some monsoon rain coming our way. What have you been doing with your Spring Garden Time? I’m always looking for new and different ideas to apply to my garden!

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Mice & Rabbits, Oh My!!
By Gail Key, Emeritus Lake Havasu Master Gardener

Those damnable mice! The war is upgrading to all out war! Sprinkled cinnamon and peppermint oil on cotton balls since they did not know that the mothballs and Irish Spring were there to chase them away! Not so much in the yard, but in the front patio where I have my fairy garden. They like to dig their holes behind the shelving making pretty big mounds for such little guys. So, I shove the cotton balls down their holes as far as I’m willing to go since the tunnels seem to be very long. A big mound in the middle of the town square is too hard for the fairies to navigate over!

Then those damnable rabbits! I’m after them with more fencing which is making the yard look like Fort Knox. Instead of individual fences for each plant the new fencing is now corrals with multiple plants, a boulder or two and some sort of decoration.

What seems to be working best is Hardware Cloth 24” H 25’ L ½” squares. So far the whole roll is being used for each corral. In the past, I have tried chicken wire, but it falls down without some other fencing to support it. I have also tried a green fencing with square holes so large the rabbits make a game of going in and out! The wars continue! Now on to the irrigation system -- another war to be fought!
Dan Alberts stepped down as LHC Coordinator at the end of 2020. Master Gardener Carol Bruch created a one of a kind mosaic pot commemorating his service to the program, as well as celebrating some of his other interests. Here is her explanation of the theme and creation of this pot:

A portion is representative of Dan’s military service, he was part of the flight crew for a Chinook 47 helicopter, for the Army during the Vietnam War. That portion of the pot has the looped ribbon with red/white & blue rhinestones. Below that is the metal Army emblem & under that is the Army symbol of a star inside a circle. The gold circle was a lid to a potpourri dish and the star was a metal necklace pendant. I found the Army symbol & the commemorative Vietnam coin at our local Veteran’s Thrift store. The CH-47 was created from cut up license plate letters & numbers that was donated by Steve Gissendanner for the project.

Another portion of the theme was of course the gardening section. I found metal alpha lettering at Hobby Lobby which spells out LHC Master Gardener Coordinator, Mailbox metal lettering created the years of service 2013 - 2020. Dan has battled rattlesnakes in his yard, so there is a rattlesnake I found at Hobby Lobby, in addition to that a pewter roadrunner, metal quail & a key chain with a scorpion. The symbol of Arizona is the Saguaro, so that is added with a Christmas ornament of a Saguaro in a pot. In his retirement he’ll spend more time exploring the desert with his VW dune buggy so that is also included using a Matchbox metal dune buggy toy. A small dish showing the AZ mountains with an Indigenous person and his brown & white paint horse is on another side of the pot.
I cut up, with my wet tile saw, 7 earth colored saltillo tiles to form most of the body of the pot, then added red mosaic glass tiles, turquoise ceramic mosaic tiles & brown ceramic tiles to form the lip of the pot. Sections of the pot are covered with broken pieces of pottery dishes & glass beads using an outdoor rated liquid adhesive. I try not to use any acrylic, plastic, sea shells or other items that tend to deteriorate in our Desert sun, especially if the item will be left outdoors. Next, I grout between objects with a sanded grout. After grouting has dried, I coated the inside & bottom of the pot with a water sealant and insert another plastic pot as a liner. That way, the constant watering of any plants put in the pot won’t deteriorate the terra cotta, & cause the tiles to loosen & fall off.

When I teach classes for this art form, I typically tell my students to plan on 4 hours for creating the design & gluing on the pot and another 4 hours for the grouting. However, that doesn’t take into account the time to find & purchase the pieces going into the pot’s design. I typically collect jewelry, pottery, belt buckles, etc. at garage sales, thrift stores and estate sales & have quite a collection already built up from which to use for the projects. This pot insert makes it easier to transplant or divide any plants without the potential of harming the mosaic pot.