

Yavapai Gardens

August 2002

Master Gardener Newsletter

Events & Activities

Prescott Area Iris Society Rhizome Sale, Aug. 3, 10am-2pm, Sharlot Hall Museum

The 3rd Annual Highlands Garden Conference will be held in Flagstaff on October 3rd and 4th.

The Arizona Highlands Garden Conference will be held at the Hart Prairie Lodge at the Arizona Snowbowl.

Registration fee: \$60 . . . pg 6

Yavapai Rose Society - don't have current info call For more information, Bob or Nancy at 771-9300, or Dave at 778-5507.

The Cottonwood Organic Gardening Club meets at the Cottonwood-Verde Valley Fairgrounds on the second Wednesday of each month at 1:00 pm.

Camp Verde Farmers Market, Friday evenings 5:30pm. Music and other entertainments will also be part of the evening. Downtown Camp Verde at the Gazebo.

Prescott Valley Gourd Club, Don't have current info, but think the meeting is Aug 14, at the Prescott Library. Call me to confirm details if interested. 7-9pm.

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Bay or Sweet Laurel *Laurus nobilis*

The name reflects its past; "*Laurus*" is the Latin word for the bay tree and "*nobilis*" means renown.

This Mediterranean native, as with many of these ancient herbs, has a story. This one is a romantic tale of Apollo and Daphne. Apollo, the

God of the Sun, fell in love with the nymph, Daphne. Unfortunately for Apollo, Cupid played a bit of a trick, shooting Daphne with an arrow that made her hate Apollo. Those Gods were tricky! Daphne's father, Peneus, helped her escape Apollo's pursuit by changing her into a laurel tree. Apollo, his ardor undiminished, fell before the tree and declared it eternally sacred. From the branches of the tree, Apollo wove a wreath to wear on his head in remembrance of his true love. In the Greek and



Roman world the tree became a sign of glory, honor and greatness. The leaves of the tree were woven together to make wreaths of victory. Wreaths were used to crown the heads of a variety of poets, kings, athletes, soldiers and priests. It was the reward at the first Olympics. Boy, have times changed! Scholars were also crowned with a laurel wreath. "*Bacca laurea*," French words for "laurel berries," became *baccalaureate*. Linked

with the good is the bad. considered an evil omen. An outbreak of pestilence in 1629 in Italy was blamed on the death of its bay trees.

Bay achieved fame for other reasons also. It was used to protect individuals from thunder and lightning—a good place to bury your head in a storm. It was also a safe harbor from witches and the devil. Medicinally, it was used to treat snakebite, wasp and bee stings, colds, scrapes, bruises, ear problems, rheumatism and a host of other health problems.

Large forests of bay trees once existed in Europe but nearly disappeared during the Ice Ages. Surviving remnants were found on islands, which were spread around the world again by man. Today the plant is still used medicinally. It's useful in settling an upset or gassy stomach. It is still used to help with rheumatism. The oil is to be rubbed into the joints. The oil is also used to help sprains, bruises and skin rashes. Other modern uses include uses as a diuretic, emetic, narcotic and stimulant. Scientific studies do show some bacterial and fungicidal properties. You may have had a parent or grandparent that put a bay leaf in the flour as a pest deterrent. The efficacy of that is unproven but it can't



hurt. If you are using the oil for the first time, try it on a small area of the skin first. It can cause dermatitis in some individuals.

Bay is most familiar to us as a culinary herb. Soups and sauces are its primary use but it is also found in marinades and pickling mixes. The taste is not the reason you remove the leaf after cooking. It's the sharp edges the leaf retains after cooking that can cause injury to the mouth and throat in unsuspecting diners. Commercial food producers use the essential oil for a variety of baked and canned products, meats and sausages.

The plant itself is pretty and can be grown as an indoor plant in the winter and placed outside during the summer in cold climates. It can be pruned into hedges or grown as a tree. While unlikely to do so in a container, bay can grow up to 65 feet. Flowers form in early summer but are not very distinctive. Yellowish-green in color, they grow in small clusters. Fruit is a small black, one-seeded berry.

While the plant can be started from seeds or cuttings, you will have better success if you just purchase a plant at the nursery. Place it where it will get partial sun; I suspect it would prefer morning and early afternoon sun versus the full brute force of a Arizona summer day.

Harvest the leaves any time. Lay them on a flat surface and then place a board or other flat object on top to keep them from curling. After drying, store in a sealed container.

MG Association News

Special Thanks to the Social Committee for their hard work in putting on the picnic. Cecy Gilbert, Laura James and Judie Bennett—thanks for a great event.

EXTRA Special thanks to Cecy and Bob Gilbert for offering their home for the picnic.

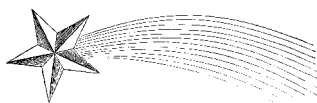
A TIP OF THE HAT goes also to the membership committee for organizing the awards program.



The following volunteers were honored at the annual Master Gardeners Picnic.

100 hours of Service: Each volunteers received a letter of recognition from Jeff Schalaus:

Larry Anderson
Karen Barrow
Beverly Emerson
Orville Gilmore
Nora Graf
Dolores Johnson
Tacla Machesney
Mary Mc Cormack
James Patt
Linda Scheerer
Ralph Young
Bill Cart



Larry Combs
Patti Conrad
Jack Krivdo
Ann Long
Doug Mc Millan
Sal Sorrentino
Anna Wilson
Phil Young



250 Hours of Service: They received a dry erase board with the Master Gardener logo imprinted on it along with the hours of recognition and their name.

Karen Barrow
Beverly Emerson
Orville Gilmore
Nora Graf
Bill Cart
Sal Sorrentino
Phil Young
Linda Scheerer
Jack Krivdo



500 hours of service: \$25 gift certificate to a nursery of their choice.

Beverly Emerson
Orville Gilmore
Nora Graf
Sal Sorrentino
Phil Young

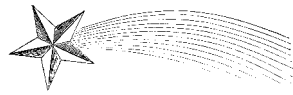
750 Hours of service: subscription to Fine Gardening magazine for 1 year.

Beverly Emerson
Nora Graf
Sal Sorrentino
Phil Young



1000 Hours of service: Each volunteers received a long sleeved denim shirt with the Master Gardener logo embroidered on it.

Nora Graf
Sal Sorrentino
Phil Young



1250 Hours of service

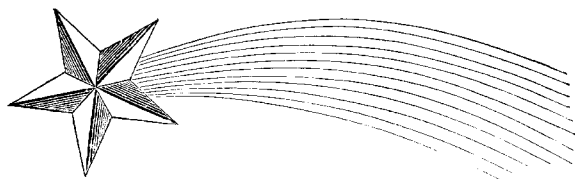
Nora Graf
Nora received a ratchet pruner with case and a knee pad.

We want to thank all of these wonderful volunteers who have put so much effort into the Master Gardener Program over the years. We also want to welcome all of our new Master Gardeners and encourage them to be an active part of their community. There is such a great need for the services of the Master Gardeners throughout the County.

Thank you all again and keep on digging!!!

Prescott Farmers Market

August 10 & 24, and Sept. 14. Four volunteer are needed each Saturday. Hours: 7:30 a.m. until noon, and with additional time to pick up the equipment from the Extension Office, set up the booth, and return everything, we are looking at six (6) hours total. Call Eunice



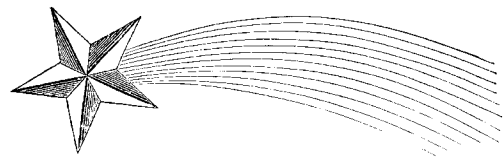
Ricklefs at 771 9559 or Jonella Blake at 771-9471.

ARE YOU LOOKING FOR A FUN WAY TO GET SOME VOLUNTEER HOURS?

School gardening is the answer Karen Barrow has been working on a garden at Daniel Bright School in Cottonwood and is looking for some help. She has a variety of tasks, from working with the children in small groups to pruning roses to helping with the pond. There is also an aviary and a rabbit hutch. Do your talents lie in any of these areas? Please call Karen at 282-7358.

Youth Gardening

Master Gardeners interested in youth gardening in the Yavapai County area, please call or e-mail Cindi Shaffer at 928-717-0828 or cindi@shafcomm.com. **Specifically there are volunteer opportunities available this summer in the Abia Judd Elementary School Secret Garden in Prescott at the corner of Iron Springs Road and Williamson Valley. **



WHAT'S BUGGING YOU?

Your help is needed Elinor Benes is putting together a specimen insect collection to identify the insects in Yavapai County. Please collect your insect in a canister or other suitable container. Include information as to where, time, plant taken from and any other pertinent info. Please include your name and phone number so that Elinor can contact you if she has any questions. Drop off samples at either Extension office. You can contact Elinor at 649-5814.



Forest Succession

by Nora Graf

Over the last couple of weeks in June, many Arizonians sat riveted in front of their televisions watching a huge swath of the White Mountains burn. We saw buildings go down, people evacuated and trees burn. It seems that everyone, regardless of whether they were forced out of a home by the fire or just sat and watched it on television, were horrified by the trees burning. While the forest will never be what we remember again, Mother Nature has a plan. It's the same plan that she has used forever.

I was living in Montana when Yellowstone burned. I heard much of the same rhetoric then as I do now. "The land is going to be sterile nothing will grow," "the government is mismanaging its forests" and "we should let the lumber companies log." I'm not going to address the last two issues, in part because it is more a political argument rather than a scientific one. Everyone has strong feelings and many would probably not agree with me regardless of what side I stand on. This is a gardening newsletter and not a political forum. I am going to talk about the first item. In Yellowstone, as soon as the fire was contained there were cries of reseedling or donating pine seedlings, of doing something because without the help of man nothing would happen. Nothing is further from the truth. While the area will never be the same, something did happen there, as something will happen here. It just won't be the same.

From the ashes a host of plants will spring forth. Before the flames were even out, grasses were peeking through in Yellowstone. It was the visible beginning of forest succession. All landscapes, including your home landscaping, go through stages. Plants and animals come and go as the environment changes. It is actually a fairly orderly process where new species are replacing old, each altering the growing conditions. Just think of what you start with in the spring—bare ground—and where it ends in the fall just before everything freezes.

The primary succession begins in areas that appear to be devoid of any life. Water sprouts seeds that may have lain in the soil for years. They may have needed sunlight to germinate but under a forest canopy never got enough. They may have needed fire to scarify the seeds, necessary for

germination. The bonus is that they have nitrogen rich ash to speed their growth. Perennials that have survived because their roots weren't burned send up new sprouts. There are sometimes even tree and shrub seedlings that needed the fire to germinate or needed more sun. These first invaders help improve soil moisture and add organic matter to the soil. Over time, the perennials and shrubs begin to replace the grasses and then, as the young trees grow, they begin to shade out the grasses and annuals. Soon enough in tree years, the mature trees now shade out all the small

shrubs, grasses and perennials, leaving a mature forest. This doesn't happen in a human time frame. The pre fire forest won't be back by the time most of us are gone; it happens on its own schedule but it will be back.

The same thing happens to animals. Yes, animals do lose their lives and homes in fires but, surprisingly enough, most survive and in the new growth that appears often flourish. A climax forest like in the White Mountains actually doesn't contain as much wildlife as one that is evolving. New growth brings in many more species.

Downed trees become places for insects to infest and provide food to birds, bears and other small mammals. Some birds also find ample nesting sites in dead trees. The shrubby growth that eventually develops are favorites of deer. Increased berries and browse attract bears and support their need for fat for the winter.

Are there drawbacks to such a fire?—of course there are. Weeds love bare environments like this. Aside from the desirable plants, there will be plenty of undesirable ones. If it rains hard, which we are all hoping for one of these days, the erosion on the bare slopes will be horrendous, clogging streams for miles and eroding valuable soil. Is there something "WE" can do to help—probably not. Forest Service officials will probably try to do some grass seeding to reduce erosion; but it is time that the area needs. Unfortunately, time is often not what we want to give anything in an era of instant gratification. So, instead of trying to lay blame (there's plenty to lay on all sides) try to enjoy the new spectacle of a forest regenerating. As I found out in Yellowstone, the regeneration can be extraordinarily beautiful and exciting.



Drip and Drought

by Nora Graf

How many times have you watered this week? Do you feel guilty about all the water you are putting on your plants in spite of the drought? Or maybe you don't feel guilty but should. We live in a desert and even in the best of times our rainfall is extremely limited. We live where growth is booming and there are concerns about the future source of water. When the water we lavish on our landscape is often more than we use

to maintain ourselves, perhaps its time to re-think the landscape. While I have always advocated getting rid of those water guzzling lawns, this is another approach you might want to consider to reduce your water use and still be able to grow most of the plants you want.

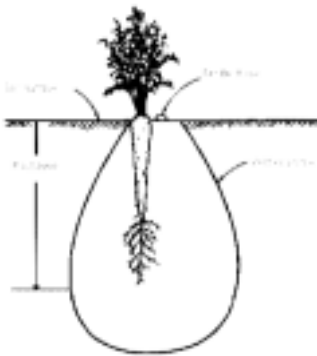
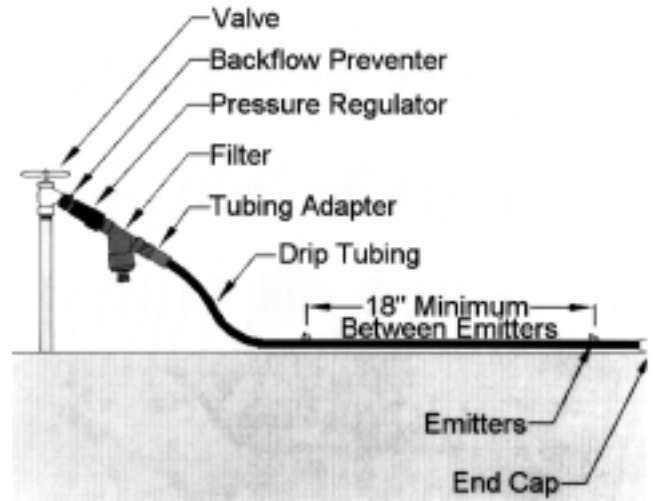


Figure 1. Modified root profile below a block of soil.

Drip irrigation slowly distributes water to the root zone with very little evaporation. Hook the system up to a timer and you don't even have to go outside in the hot afternoons. You can save up to 70% of the water compared to a sprinkler system. This does not mean it's trouble-free, but the advantages outweigh the disadvantages most of the time.

Drip systems can be retrofitted on an already existing underground sprinkler setup or they can be set up from a hose connection. (Or you can pay someone to do it) The main line is one half inch poly pipe. One of the distressing things about the pipe is that there are two different sizes even though they are both marked 1/2 inch. It all goes back to their development history and the fact that the rest of the world uses metric—but I'm not going into that. Make sure you get all the same size and the correct fittings as they are not interchangeable. Invariably the store closest to you will have the wrong fittings so keep a supply of extras around for repairs.

Take measurements and plan ahead; there is nothing worse than to run out of a vital part



Gardeners, take off your gloves and get out your notepad. The 3rd Annual Highlands Garden Conference will be held in Flagstaff on October 3rd and 4th. The Arizona Highlands Garden Conference is planned and presented by University of Arizona Cooperative Extension Master Gardeners from Coconino, Gila and Yavapai counties. Anyone who struggles with finding the perfect cold, drought and pest/wildlife resistant perennial, tree and/or garden variety for our high, arid elevations from 3,000 to 7,000 feet is encouraged to attend.

The Arizona Highlands Garden Conference will be held at the Hart Prairie Lodge at the Arizona Snowbowl.

Registration fee: \$60 (There is a reduced fee for just a single day but I don't have that information yet)

Space is limited, so call or visit the University of Arizona Coconino County Extension Office today for information and to register. The office is located at 2304 N. 3RD Street, Flagstaff, or it can be reached at (928) 774-1868 or: www.ag.arizona.edu/coconino.

usually after the hardware store has closed. (Personal experience!)

Some tips for laying out a system

Read the manufacturers recommendations. If you don't follow them, the system will never work correctly. Do not exceed the recommended pipe runs; too long a run and poor uniformity and uneven water application will occur.

Water pressure is always a factor. The emitters may actually be applying different amounts of water depending on where they are located on the line. Excessive pressure can blow out emitters or tubing. There are pressure compensating emitters available but they quite a bit more expensive.

Try to follow the contours of the site. Water flows downhill so the pressure may be greater at the bottom of the line than at the top. If your site has lots of ups and downs, pressure compensating emitters are the best solution.

Check your water pressure. Most systems have too much pressure to run drip systems. The addition of a pressure regulator will probably be necessary.

Include a filtration system. Emitters can clog. Just make sure you clean or change filters occasionally.

Include, if you can, a fertilizer injector. This will make fertilizing easy and simple. However, many states have laws about fertilizer getting into water systems, so add a backflow preventer.

These small devices prevent water from backing up and returning to your well or city system.

Now that you have the main line ready, it is time to attach the drip tubing and emitters. Once again, make sure you don't exceed the manufacturer's recommendations. You don't want thirty feet of tubing coming off the main line with emitters every foot. Plan two emitters per plant;

trees and shrubs will need more!

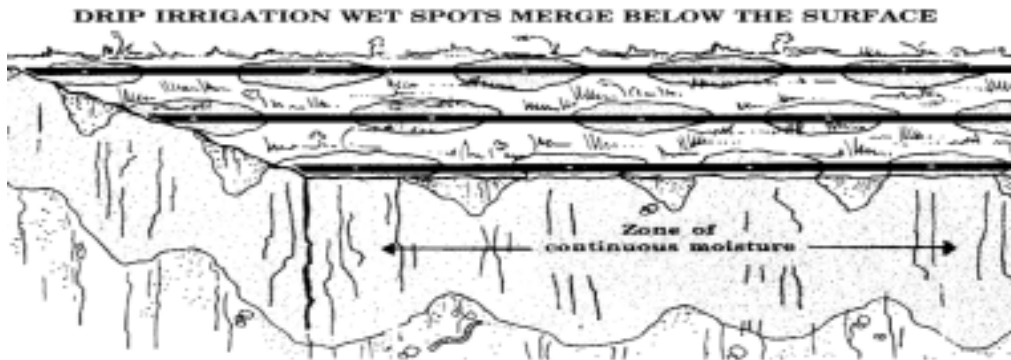
Emitters come in different types. Normally you can find them in 1/2 gallon, 1 gallon, 2 gallon or 4

gallon per hour sizes. Pressure-regulated emitters are guaranteed for output, non regulated ones vary in their output depending on the pressure in the line and how many other emitters are on the line.

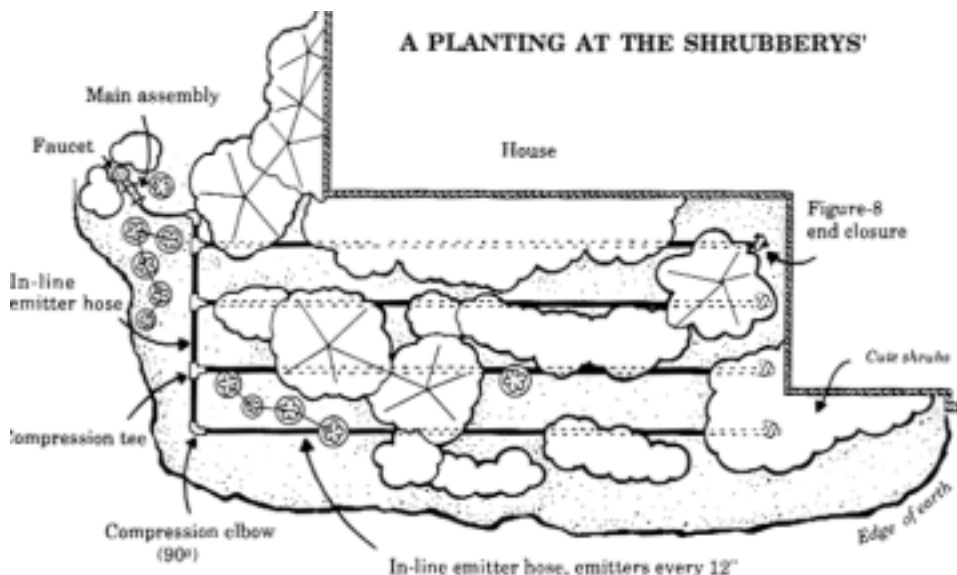
There are also microsprinklers and misters available. I have a portable line of microsprinklers on a timer that I use for germinating seeds in the garden. Laser tubing is an alternative to emitters but I find that it clogs up really easy and once clogged, forever clogged.

Mulch, Mulch, Mulch. I'm beginning to sound like a cheerleader at a high school game. Mulching is one way of improving your new drip system. If you put the drip system underground adding mulch on top will improve water retention. If you are a bit lazy and put the system on top the ground you really need to mulch. You can use bark, stones, decomposed granite, leaves, whatever—but mulch. You will be surprised what an improvement mulching makes.

Leaky hoses are a relative newcomer to the drip business. Made from recycled tires, they are a rough texture that allows the water to "leak out."



A PLANTING AT THE SHRUBBERYS'



You can purchase them just like garden hoses or you can purchase 100 foot lengths and purchase the fittings you need. Once again, these two are not the same size and the fittings will not be compatible. You can also purchase 1/4 inch tubing.

I love this stuff. I buy the 100 foot lengths and fittings and cut to fit my garden. In my vegetable garden at work I have it hooked to an underground system but at home I have it hooked up to a garden hose with a timer attached. They are mostly carefree for the summer. You can circle them around a tree with several loops out to the drip line, making one of the most effective ways of watering trees that I've found. You can use them in curved beds, circle them, square them, making them adaptable to nearly any shape.

There are some problems with them. They can split, especially if your water pressure is too high, but are easy to repair if you have the fittings on hand. They last about five years before they need to be replaced. Even underground they begin to split more as they get older.

Over time they can become clogged with mineral deposits if you have hard water. I've found two ways to rejuvenate them, one a bit more labor intensive than the other. Take the hose and find an strong upright post somewhere and firmly drag the hose across the post a few times, continually moving the hose until you have scraped the entire thing or, if a portion of the hose is clogged, bend it every inch or so in that section to break up

the clogs. The easier method is to find a large plastic container that the entire hose will fit in and fill it with vinegar or another mild acid which will dissolve the mineral deposits. While I know people who leave these laying on top of the ground and find they work, I think its very important to mulch these with something for optimum performance and to slow down the deposit of minerals.

The 1/4 inch tubing I have found to be problematic. It tends to clog easier but its biggest problem is that it is really just a tad too large to fit tightly on most connectors. The connection leaks and wants to pop apart. When it does work, I really like it for containers. You can wrap a loop of it inside the container and it provides even water for any number of plants in it.

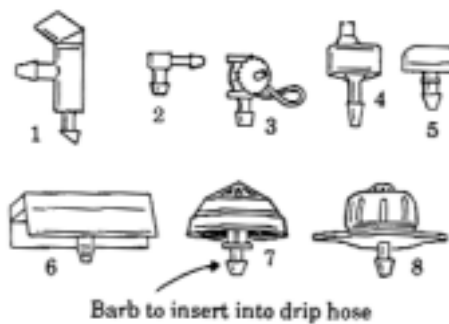
On all drip systems you have to remember the water goes down, not out very much.

When you plant, make sure the drippers or leak hoses will get water to the root zone. It doesn't pay to go through all this trouble and then plant two feet away from an emitter. The plant will die.

Getting rid of your sprinklers and flood irrigation can be one of the best things you can do for the environment, for your water bill and for your plants.

Most hardware stores have pamphlets available on how to put together a drip system, but if you need more information, try reading: "Drip Irrigation" by Robert Kourik.

VARIOUS EMITTERS



MG Volunteer Opportunity

MASTER GARDENERS' HELP NEEDED IN WEST SEDONA

Recovery Alternatives, a nonprofit treatment center that will house addicted women and their children, is seeking our help in developing vegetable gardens, planting fruit trees, and adding flowers to various areas of their nearly one acre property, which is located on Hohokam Drive, above and behind the Sedona Library.

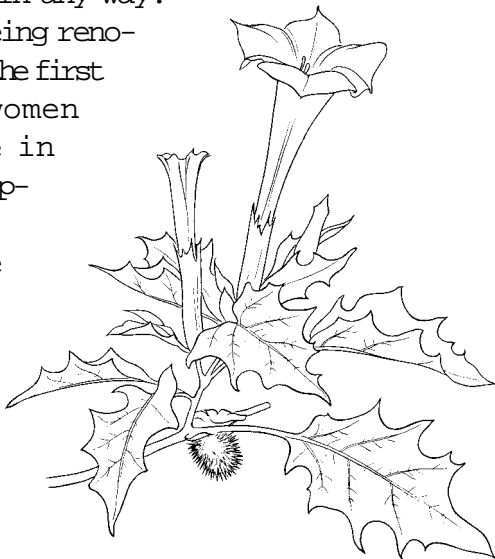
This home will treat low-income single women, and women with children who have substance abuses. They will be able to live in the home for 28 days, while they undergo intensive treatment, and they will have another month of transition time to make connections with health care services, job training, life skills, and financial assistance.

Since Recovery Alternatives is a nonprofit center with very limited financial resources, they would very much appreciate any help we can give them. Several raised vegetable beds need to be built, and a play area for the children needs to be created, as well as the items mentioned in the first paragraph of this article. If anyone is skilled at drawing up a basic landscape plan, that would be wonderful.

Please call Carolyn Hernandez at 284-4341 if you can help in any way.

The home is being renovated now, and the first group of women should move in sometime in September.

These women and their children will work in the gardens as part of their therapy, and we can develop an ongoing educational relationship with them.



The "Arizona Master Gardener Manual" is now on-line. Check out <http://ag.arizona.edu/pubs/garden/mg/>

NOTE FROM THE EDITOR:

Let me know about your garden, the types of seeds you planted, interesting articles you found anything of gardening interest. Send to:

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