



High on the Desert Cochise County Master Gardener Newsletter

Vol. 14, No. 4 APRIL 2003

The University of Arizona and U.S. Department of Agriculture Cooperating

Happy, Healthy Houseplants

What is the best possible soil to use for houseplants? There are a lot of different potting soils available and soil-less media as well. How about mixing your own? Some of you will debate this with me, but I still think that regular garden soil is not what you should use for your houseplants. Even if you do not live in the desert and your garden has perfect soil, this should not be used in the house without being sterilized. This process is just too time consuming and smelly to make it worthwhile. There are so many affordable mixes available.

I do not care for the soil-less mixes because once they have dried out they are very difficult to revive. I usually buy any cheap mix and add some perlite for better drainage for my average houseplant. For cacti I add half the amount of sand to it and for African violets I add peat.

The most important thing—do not forget to mulch. Mulch, whether it is shredded bark or gravel will help to keep your potting soil fresh and will look attractive. Covering this way prevents the soil from becoming crusted and unsightly and will conserve water.

Orchids and bromeliads do not like to grow in soil—they do better in shredded sphagnum moss or osmunda fiber. Jungle cacti like an African violet mix mixed with sand.

If you really insist on mixing your own medium, topsoil should be no more than 25%; the other ingredients should be a balance of compost or sphagnum peat, perlite, and/or vermiculite.

Angel Rutherford, Master Gardener

Inside this issue:

Cuttings 'N' Clippings	2
Scholarship Awarded	2
April Reminders	2
Renewal Notice	3
The Virtual Gardener	3
Signs of Spring	4
Agent's Observations	5

Cochise County Cooperative Extension

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Cuttings 'N' Clippings

* The next regular meeting of Cochise County Master Gardeners Association is 5:00 p.m. May 7, 2003 in Room 212 at of the University of Arizona South campus.

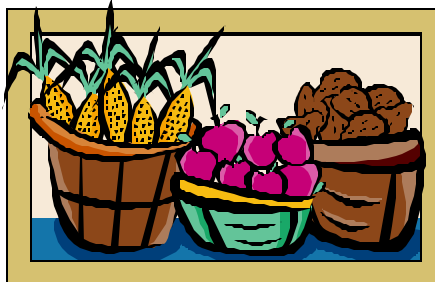
* **April is Water Awareness Month!** The April 5 *Water Wise* workshop is *Do's and Don'ts of Drip Irrigation* with Southwest Desert Images Landscapes. The free workshop takes place at the University of Arizona South, 1140 N Colombo, Sierra Vista at 9:00 a.m.

* Saturday, April 19, is **Earth Day**. There will be a celebration in Veterans Memorial Park in Sierra Vista. Look for the Cochise County Master Gardeners Association table!

* Bisbee will also be celebrating **Earth Day** on April 19. Festivities begin at 10:00 a.m. at St. Patrick's church with the first annual Procession of the Species, a walk from the church to City Park in Brewery Gulch where the festivities will be held. For information call Marcia Galleher at 432-3726 or e-mail mobius@the.river.com

* Saturday, May 3 from 8:30—9:30 a.m. a free *Water Wise* Workshop will be held at the University of Arizona South called *When Do I Water?* with Rob Call, Horticultural Extension Agent.

* Also on May 3 from 9:00 a.m. 1:00 p.m. a self-guided low water landscape **Xeriscape Tour** will be held sponsored by the Cochise County Master Gardeners and *Water Wise*. Call the Cooperative Extension Office for more information/map. This is also a free activity and open to the public.



* The second season opens May 3, 2003 for the old-fashioned Farmer's Market held in the Warren District's Vista Park, Bisbee, on Saturday mornings from 8:00—noon. Items available include farm products, plants, home crafts, nature crafts, food products, yard and garden art. For more information or if you would like to be a vendor call the Market Manager, Valerie McCaffrey at 432-7066 or e-mail:

vallimac@ivwnet.com

* The High on the Desert Newsletter is always available on our web site www.ag.arizona.edu/cochise/mg/

CCMGA Scholarship Awarded

Buena High School senior, Tyler Jorgenson, was awarded a \$1,000 scholarship by the Cochise County Master Gardeners Association for his project in the recent International Science and Engineering Fair (YES Fair) held in Sierra Vista. His project "Reduction of Estrogenic Activity through the Waste Water Treatment Project" also received other awards, including an all expenses paid trip for Tyler and his advisor to the International Science and Engineering Fair in Cleveland in May. Congratulations and good luck in Cleveland, Tyler!

Wettie sez . . . Be Water Wise!

Fifty percent of a typical family's water consumption occurs in landscaping. Conserve water by installing low water use landscaping called **xeriscape** for a lush, colorful yard!

The U of A *Water Wise* Program
458-8278, Ext. 2139
Call for a free water audit!

April Reminders

- ⇒ Stake new trees
- ⇒ Plant cool-season veggies
- ⇒ Fertilize
- ⇒ Prepare for pests

Robert E. Call

Robert E. Call
Extension Agent, Horticulture

Carolyn Gruenhagen
Editor

• NOTICE •

Attached to this newsletter you will find a Master Gardener Mailing List Update Form. If you wish to continue receiving the newsletter (even if you just signed up for it) you must return the signed form by mail or by dropping it off at the Willcox or Sierra Vista Cooperative Extension Offices by the end of May 2003. You may also sign up electronically on our Web Site: www.ag.arizona.edu/cochise/mg/

The Virtual Gardener—Mosquito Borne Diseases—West Nile Virus

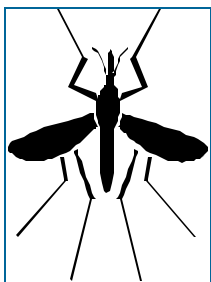
One of the most interesting sessions I attended this year at the High Desert Gardening & Landscaping Conference was Dawn Gouge's presentation on mosquito control. Dr. Gouge is an Assistant Professor with the University of Arizona Cooperative Extension who specializes in managing urban insect pests. Her talk focused on the imminent arrival in Arizona of the mosquito-borne disease called West Nile Virus (WNV) and what we can do to minimize the risk of becoming infected. She also mentioned that Malaria, Yellow Fever, Dengue Fever, several types of encephalitis, and Canine Heartworms are spread by mosquitoes.

West Nile Virus is endemic to Africa and was first identified in New York State in 1999. Since that time it has spread west and now has been identified in all but five states. It is expected to arrive in Arizona this year. As of last October there had been 3,507 confirmed cases of WNV in the United States and 31 deaths due to the disease.

Most people who contract the disease develop no symptoms at all and recover completely. About 20 percent of people infected develop relatively severe flu-like symptoms lasting from 3 to 6 days that may include a high fever, and about 1 in

150 infected people develop encephalitis or meningitis that is sometimes fatal. Most fatal cases have been reported in adults over the age of 50. There is no specific treatment for the disease.

Mosquitoes spread the disease but birds are the principal hosts. Although the virus has been identified in 110 different species of birds, crows and jays seem to be especially susceptible. When a mosquito bites an infected bird, it ingests the virus along with the blood. After the virus replicates in the mosquito, it can be transmitted to a human or other vertebrate by the bite of the infected mosquito. Mosquitoes from the genus *Culex*, especially *Culex tarsalis*, are the principal vectors in the East and can be expected to be vectors in Arizona as well.



So what can you do to protect yourself? There are two defensive strategies. The active strategy is to reduce the mosquito population and the passive strategy is to minimize your chances of being bitten. Using both strategies provides the most effective protection.

One way of reducing the mosquito population is the application of insecticides. Some communities have already done this on a large scale. The problem with this approach is the "cure" may be worse than the disease. The insecticides do not just kill mosquitoes but other insects as well, including those that eat mosquitoes and perform many other valuable functions. If the wholesale slaughter of a lot of bugs doesn't bother you, consider the potential damage these insecticides may do to humans. The rated "toxicity" of insecticides as determined by laboratory tests only determines how much of the insecticide constitutes a potentially lethal dose when ingested all at once. It says nothing about long-term effects that may include cancer, genetic damage, birth defects, *etc.* In the long run, more humans could die or suffer health problems from the insecticides than from WNV.

A defensive tactic available to each of us is to destroy the breeding grounds for mosquitoes. Since most mosquito species spend the early part of their lives in water, this means minimizing standing water where the mosquito larvae hatch and grow up. Any water that

(Continued on back page)

Signs of Spring

Signs of spring are forthcoming—hummingbirds sipping nectar from flowers, ants emerging from underground nests, birdsong, birds mating & building nests, and of course the howling winds to be followed by the blazing heat that will soon send me running for shade.

Long time readers of this newsletter know that I consider spring the worst time for planting in the High Desert. Instead I'll be concentrating on details such as annual irrigation maintenance, incorporating compost into the vegetable beds, planting vegetable seeds indoors for July planting, and on May Day I start pruning plants with winter kill damage.



But if you can't wait until the summer rains to plant something! here is a list of plants that can tolerate the harsh spring conditions:

Acacia neovernicosa - Viscid Acacia
Acacia smallii - Sweet Acacia
Acacia wrightii - Wright Acacia
Agave desertii
Agave chrysantha
Agave parryi var. *huachuchensis*
Agave parryi var. *neomexicana*

Agave parryi var. *truncata*
Agave parrasana
Agave palmeri
Agave parryii
Agave schottii
Berlandiera lyrata – Chocolate Flower
Bouteloua gracilis – Blue Grama
Buddleia marrubifolia - Woolly Butterfly Bush
Calliandra eriophylla - Pink Fairy Duster
Chilopsis linearis - Desert Willow
Dalea bicolor var. *bicolor*
Dalea frutescens 'Sierra Nigra' - Black Dalea
Dalea greggii - Trailing Indigo Bush
Dalea pulchra - Bush Dalea
Dalea versicolor var. *sessilis* 'Mountain Delight'
Digitaria californica – Arizona Cottontop
Eragrostos intermedia – Plains Lovegrass
Fallugia paradoxa - Apache Plume
Hesperaloe funifera - Coahuilan Hesperaloe
Hesperaloe parviflora 'Red'
Muhlenbergia porteri – Bush Muhly
Muhlenbergia dumosa – Bamboo Muhly
Muhlenbergia emersleyi – Bull Grass
Muhlenbergia rigens - Deer Grass
Nolina microcarpa - Bear Grass
Nolina parryii - Parry's Bear Grass
Opuntia basilaris - Beavertail Cactus
Opuntia santa-rita x basilaris – Santa Rita Prickly Pear
Penstemon eatonii - Firecracker Penstemon
Penstemon palmeri – Palmer's Penstemon
Penstemon pinifolius - Pineleaf Penstemon

Penstemon parryii - Parry's Penstemon
Penstemon superbus - Superb Penstemon
Prosopis glandulosa - Honey Mesquite
Prosopis velutina - Velvet Mesquite
Psilostrophe tagetina - Paper Flower
Rhus microphylla - Little Leaf Sumac
Salvia chamaedryoides - Blue Sage
Salvia farinacea - Native Mealy Cup Sage
Salvia greggii - Autumn Sage
Salvia clevelandii - Chaparral Sage
Salvia dorrii var. *dorrii* - Desert Sage
Senna lindheimerana - Velvet Senna
Senna leptocarpa – Longpod Senna
Senna wislizeni - Shrubby Senna
Sphaeralcea species – Globemallow
Tagetes lemmonii - Mt. Lemmon Marigold
Yucca baccata - Banana Yucca
Yucca schottii - Mountain Yucca
Zexmenia hispida 'Devil's River'

Cheri Melton, Master Gardener

***If we had no winter,
the spring would not be
so pleasant; If we did
not sometimes taste of
adversity, prosperity
would not be so
welcome.***

- Anne Bradstreet

The Agent's Observations

Q

I just purchased a palm-like plant from the grocery store. What is it and can I plant it outside when it warms up?

A

The plant was brought into the Extension Office and identified as one of the *Dracaenas*. It had green leaves with yellowish striped margins and was probably *Dracaena fragrans* variety 'Massangeana.' This is a tropical plant used as a houseplant in northern climes. This potted plant may be placed outside on the north side of a house when danger of all frost is past. If placed in full sun it will be burnt. Keep the plant in a pot and move it indoors when cold weather occurs. Grown in the proper environment *Dracaena* can grow to be several feet in height.

Source: *Houseplants*. 1980. The American Horticultural Society, Mount Vernon, VA. pp. 96-97.

Q

Several of my houseplants have burned leaf tips. The parlor palm is most affected. Also, other houseplants have leaf burn on the edges. What caused this and what can be done to avoid it?

A

Leaf tip burn of parlor palms is quite common. This happens because of chlorine in tap water. To avoid this fill a gallon jug or container with water. Do not put the lid or cover on. Let the water sit for several days and the chlorine will dissipate. Water your house plants with this water. After watering fill up the container again and let it sit for several days before watering again. The cause of marginal leaf burn is probably because of excessive salts in the soil. Tap water, as well as fertilizers, contain salts. Take houseplants and leach the salts out by watering three to four times more than normal. This might be best done outside with a hose or in a sink or bathtub. Remember to fertilize houseplants as sunlight increases during the spring and summer.



Q

I have heard that applying humic acid to alkaline soils will make it better for plant trees and shrubs. Is it true and what is humic acid anyway?

A

Humic acid is an organic weak acid. It is one of the by products of the composing process. Some believe that applying humic acid will increase water penetration in soils and acidify soil. Evidence for this is testimonial. Research does not bear this out. It is doubtful that such a weak acid could change the pH of alkaline desert soils. Desert soils in the Southwest have high pH because of the large amount of calcium carbonate found therein. These soils will contain 1 to 10% calcium carbonate. Even with strong acids, like sulfuric or muratic acid, it is difficult if not impossible to change alkaline soil pH permanently. Acid soils naturally occur where over 30 inches of precipitation falls annually. This moisture leaches the calcium carbonate through the soil profile. Soils high in the "sky island" mountains can be mildly acid. Cases of acid soils have occurred in desert soils when acid forming fertilizers are constantly applied through the drip systems. Over several years acidity may occur but only in localized areas where the drip emitter places water.

Robert E. Call
Extension Agent, Horticulture

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(Continued from page 3)

stands for more than three days can become a mosquito hatchery. At this time of the year, standing water is not a particular problem but during the summer rains water collects everywhere. I found, for example, that mosquitoes were breeding in rainwater pooled in the bottoms of the plastic trashcans I use to collect yard waste. The solution for me was to drill several quarter-sized holes in the bottoms of the cans to keep the water from pooling there.

If water must stand (as in a bird bath) replace it every couple of days. If larvae are present and it is not possible to replace the water frequently, you can kill the larvae with *Bacillus thuringiensis israelensis* (Bti) or smother them with a little mineral oil. Bti is a naturally occurring, environmentally safe, soil

bacterium that produces a protein that is fatal to mosquito larvae when ingested. You can find Bti in garden supply centers. There are also a number of specially formulated mineral oils used for mosquito control. A very thin layer of oil prevents the larvae from breathing and suffocates them.

Passive defense strategies include using physical barriers such as window screens to keep mosquitoes out of your house, using citronella candles on the patio to ward off mosquitoes when the wind is not blowing, and using topically applied insect repellents. The most common and effective repellents contain N,N-diethyl-m-toluamide (DEET). Those of us with Service experience are familiar with the DEET-based repellents issued by the military

(which, by the way, worked great for cleaning grease pencil marks off of acetate map overlays). Unfortunately DEET has come under some criticism lately as potentially unhealthy and probably should be used with care, especially on children. Some of the new “botanical” repellents based on eucalyptus oils are effective and are safe to use, even for young children. Read the labels on the bottles before buying a product.

If you are interested in finding out more about mosquito-borne diseases in Arizona and what you can do to minimize the risk of becoming infected, log on to <http://ag.arizona.edu/urbanipm/insects/mosquitos/mosquitos.html>. You will also find other links to follow from there.

Until next time. Happy surfing.

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