



High on the Desert Cochise County Master Gardener Newsletter

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

The Virtual Gardener—Mixed Bag

I'll begin this month's column with a report on the upside-down tomatoes discussed last month. Simply stated they're doing great! Both have set on fruit (nine on one plant and five on the other), and both are covered with healthy, deep green leaves. And as predicted, the stems of both, after growing straight down for a couple of days, have made U-turns so that the ends are growing upward (makes me wonder what's happening with the roots!). I have fertilized them weekly with a dilute solution of 18-18-21 water-soluble tomato "food" and kept them well hydrated.

In addition to the tomatoes, Mrs. VG has planted the tops of the containers with a mix of flower seeds which have sprouted and are doing well also. When they bloom, we should have a very attractive tomato "garden."

Now for a switch of topics—

A few days ago in the *Arizona Daily Star* I read, in a column by Dr. Andrew Weil, a discussion of whether poinsettias are poisonous or not (according to Weil they're not or at least not very). In that article Weil praised a new book, *Handbook of Poisonous and Injurious Plants* by two physicians (Lewis S. Nelson and Richard D. Shih) and a botanist (Michael J. Balick). I found a copy in the reference section of the Sierra Vista Public Library and set out to see if it might be appropriate to review in this column as a recommended read for gardeners. Alas, it was not.

It's a fascinating book full of descriptions of hundreds of plants, the mechanisms by which they cause injury, and recommended treatments for the injuries, but it probably doesn't belong on your bookshelf

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unless you are a physician or on the staff of a poison control center. If you are a physician who is likely to see patients who have been exposed to harmful plants, it should be on your bookshelf. Never-the-less, the book did contain some interesting information for ordinary folks which I would like to share with you.

First, as might be expected, the authors point out that 85 percent of calls to poison control centers concerning potentially harmful exposure to plants involve children under the age of six. The good news is that most of these exposures are nontoxic. It is also good news that the practice of aggressively purging the stomach through orogastric lavage (medspeak for stomach pumping) or the administration of Syrup of Ipecac to induce vomiting are not the recommended first course of treatment anymore since they may cause more harm than good.

Second, the authors point out that correct specific identification of the potentially harmful plant is imperative to selecting an appropriate treatment. Even plants that are closely related may vary considerably in their toxicity. In fact, one of the most valuable features of this book is its descriptions of plants.

Some of the harmful plants described in the book are commonly grown. Here are just a few and the injury they can cause.

Oleander contains a cardioactive steroid that can cause permanent heart damage or death if ingested. Even the smoke from burning plant parts is poisonous. **Philodendron** leaves contain calcium oxalate crystals that, if ingested, will cause severe and swelling

irritation of the mouth and throat, and in the worst case cause asphyxiation. The leaves of rhododendron and even honey made from its nectar contain a sodium-channel activator that can cause heart damage and blood pressure problems. Plant parts from the genus **Senecio** contain pyrrolizidine alkaloids that can cause hepatitis if ingested and even poison milk from cows that have eaten the plant and the honey made from its nectar. There is no known antidote.

Next time you're in the library, stop by the reference section and spend a few minutes leafing through this book. If you're not so inclined, check out these Web sites:

From the University of Arizona College of Pharmacy lists of poisonous and injurious plants commonly grown here.
<http://www.pharmacy.arizona.edu/outreach/poison/plantsBad.php>

A searchable database from Cornell University. Primarily focused on plants that cause injury to livestock. Includes both descriptions of plants, toxicology, and treatments.

<http://www.ansci.cornell.edu/plants/>

Nice chart of poisonous plants and symptoms of their poisoning from Texas A&M University.

<http://plantanswers.tamu.edu/publications/poison/poison.html>

Until next time, eat your veggies but don't nibble the houseplants! Happy surfing.

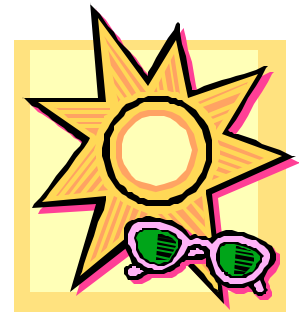
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Cuttings 'N' Clippings

* The next CCMGA meeting is 5:00 p.m. Thursday, June 5 at the University of Arizona South campus Public Meeting Room. This is the Annual Business Meeting and will include the election of officers and Budget approval.

* The free June 7 Water Wise workshop will be *Harvest Rain!* Plants love rainwater and you will too when you use rainwater instead of precious groundwater for landscape plants. At this workshop you will learn how to make "active" (container) and "passive" (earthworks) systems. It will be held from 9:00 a.m. at the University of Arizona South Public Meeting Room.

* Also on June 7 from 1—5:00 p.m. Angel Rutherford will be teaching a class on Pond Building at Cochise College. For information and registration call (520) 515-5492.



Robert E. Call

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Growing Orchids in Arizona

Yes, Virginia, you can grow orchids in Arizona! Moving from humid Florida to dry Arizona less than two years ago was cultural plant shock for me. I had to leave behind two greenhouses with hundreds of orchids in them, some of which I had been growing for fifteen years. As I sold each plant I made sure I included care instructions for that genus.

Many people are somewhat, or downright, intimidated at the thought of growing such “exotic, temperamental, demanding, expensive” plants as orchids. But, the truth is, they are easy to grow if you can understand what they need (oops, now my secret is out!). Most of the orchids sold in the trade for ornamental use are epiphytic, meaning they are air plants. In nature, specie orchids grow in the tree canopy of rain forests, where they are acclimated to frequent rain showers which produce high humidity. Their roots are attached directly to the bark of trees, thus not requiring any soil, and they are shaded by the tree leaves. Unlike mistletoe and others, orchids are not parasitic; theirs is a symbiotic relationship with their host tree.

The first thing to realize is that an orchid is not just an orchid. So, what genus did you buy at Safeway or Lowe’s with the beautiful flowers?



The most common orchids sold in big box stores are

Phlaenopsis—wide, low growing, soft leaves with a spike of mostly large flowers arching above the plant; **Dendrobium**—taller stalks with smaller, pointed, stiff leaves, whose flower spikes grow from the top of the stalks. These are generally smaller flowers than the Phals or **Oncidium**—generally shorter stalks than Dens with multiple flower stems of small, usually yellow flowers. All of these orchids hold their flowers well and can continue to bloom for a number of weeks in even the poorest conditions once they have committed to flowering.

Now...where to grow orchids in Arizona? Answer: any bathroom that is frequently showered in and has a window or skylight. The humidity is provided by the showers or baths and all you need to be sure to do is close the door for several hours afterward. As a rule of thumb, the wider and softer the orchid leaf, the less light that genus requires. So, if you have low light in your bath (*i.e.* north or east facing) a Phal would do well. If it’s south or west facing, Dens or Oncidiums will be happy. The key is orchids like bright, indirect light as a rule of thumb—they can’t survive in a closet or on the window sill in full sun. Just pay attention to the leaf of your orchid and place it accordingly. Now to watering: remember orchids are air plants and grow in rain forests. Water your plant twice a week and let it drain—never put it in a drain pan. Or, put them in the shower using ambient water temperature for ten minutes and then let them drain.

If you have questions about growing orchids, you can contact me at juls48001@yahoo.com for tips.

Julie Miller, Master Gardener Associate

June Reminders

- ◆ Check tree ties
- ◆ Remove stakes if new tree can stand alone
- ◆ Mulch trees & shrubs
- ◆ Remove faded flowers & fertilize roses
- ◆ Stake tomato plants & watch for curly top-remove diseased plants
- ◆ Prevent blossom end rot on peppers, melons, squash, and tomatoes by even watering and mulching
- ◆ Water! Water! Water!

Garden Tip #2,845

We like to recycle things around our house—aluminum cans, newspapers, snow shovels . . .

“Snow shovels,” you ask?

Funny you should pick up on that. Of course I recycle snow shovels. After all, we certainly don’t want our local landfills to be overflowing with them, do we? And, with all the refugees fleeing the snowy north country for sunny Southern Arizona, it’s getting to be quite a problem.

Actually, I found a perfectly serviceable snow shovel for a quarter in a local thrift shop and I couldn’t resist the bargain. Not that I am anticipating a bad winter, you understand, but it never hurts to be prepared. In the meantime, I look at it more like a very large dust pan with a long handle than a tool for clearing ice and snow from the driveway. It works great for getting those piles of weeds and leaves from the ground into a garbage can where they can be hauled off to the compost pile.

(Reprinted from the May 1996 Cochise County Master Gardener Newsletter.)

In a Desert Garden

Chocolate Flower *Berlandiera lyrata*

This plant is a native of our High Desert and is considered the flower of Cochise County. It is also the flower of the Sierra Vista Area Gardeners Club. Of course it is also found in the High Desert areas of Texas and New Mexico and northern Mexico. While it is not usually found in our nurseries sometimes you can get lucky. Keep in mind it just doesn't look good in a nursery pot and that might be the reason the nurseries don't carry it.

I dug up my first plant at a friend's home more than ten years ago. I took a tiny start and planted it in front of my home on my island bed. It has thrived with very little additional water, and in the last years has naturalized in my front yard. What I mean by that is, that it has self-seeded itself into different areas.

Chocolate flower is, as you may have guessed, a perennial and a member of the daisy or the sunflower family. It is a composite. The plant forms a neat little clump of green leaves crowned by daisy-like flowers. The flowers have brown centers, the rays are yellow, and there are lots of them. An adult plant can have more than twenty flowers at the same time. It will freeze down at the first heavy frost. I do not cut it to the ground until spring as the spent foliage will protect the roots. In spring, it will recover quickly and that is when I

clean it up. I used to cut down spent flowers to induce more of them, but that is really more work than necessary. The plant will put out new flowers all season long and if not dead-headed it will self-seed.

Chocolate flower got its name because when it flowers the air around it smells like chocolate. One spring, I went to the Arizona Sonoran Desert Museum and on the patio in front of the cafeteria they had planted big containers with chocolate flower. I sat down and had a cup of coffee there and the air was filled with the beautiful odor of chocolate. It was so amazing. It was not amazing because this is what this plant is known for; it was amazing because I smelled it for the first time. My plants do not put out the odor of chocolate, even when I crush the pedals. I can only guess that it must be my soil. Well, I can live with that. My plants are lovely, low maintenance, low to no additional water, and always looking so happy. You cannot go wrong with yellow flowers; they bring sunshine into your yard.

Here are some data on the plant. Chocolate flower forms a clump 1½ feet high and 2 feet wide, it thrives in clay soil, and it blooms from April to October in elevations 4,000-5,000 feet. It is considered a perennial herb. The Native Americans used the flower heads to flavor foods.

Angel Rutherford, Master Gardener

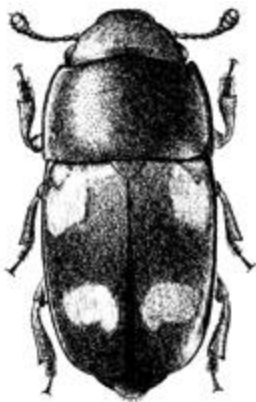


Berlandiera lyrata

The Agent's Observations

Q Our strawberry bed has been invaded by little black bugs. They eat the largest and most ripe fruit. I recall a similar bug eating our sweet corn last fall. What are they and how can they be controlled?

A Adult strawberry sap beetles, *Stelidota geminata*, are less than 1/8 inch long, oval-shaped, and mottled brown in color. They fly into strawberry plantings from surrounding areas at about the time berries begin to ripen; they are particularly attracted to over-ripe berries. There are other species of sap beetles as well. They often fly to ripening or damaged raspberries, strawberries, melons, early apples, tree wounds, corn, tomatoes, and other fruits and vegetables. They may bore into the fruit, eat a portion, and make it unfit



Picnic Beetle

for human consumption. There are other sap beetle species. The picnic beetle is essentially a secondary invader of damaged plants and decomposing plant tissue, but in undamaged ear corn silks and ripe raspberries, it can be a primary invader. As a nuisance, sap beetles

may congregate in annoying numbers on screen doors, around garbage cans, invade homes, backyards, and picnic areas,

Identification—One of the identifying characteristics of all sap beetles is their “knobbed” antennae. Strawberry sap beetle adults are slightly less than 1/8 inch long, light to dark brown, oval, and somewhat flattened. Picnic beetle adults are about 1/4 inch long and black with four orange-red spots on the wing covers. Eggs are milky-white, sausage-shaped, and about 1/32 inch long. Dusky sap beetle adults (see picture on back page) are about 1/8 inch long with short wing covers and are uniform dull black in color. Larvae of all three are white. Pupae are white, turning cream-colored and later tan before adult emergence.

Life Cycle and Habits—All of the sap beetles overwinter as adults in protected places such as decaying vegetation, debris or fruit buried in the ground. In the spring, picnic beetle adults come out of hibernation and mate. Egg laying begins in late March and April and continues in May and into June. Females lay 5 to 15 eggs per day, scattered at random near decomposing plant material rather than on the material itself. Larvae develop in spilled grain, feed, corn ears, waste piles, and soil saturated with juices and food material in contact with the soil. Full-grown larvae leave their food when mature, wander through the soil and change to the pupa

stage. Adults then emerge in June and July. The cycle from egg to adult takes about 30 to 35 days. There is usually only one generation per year. Newly emerged adults do not lay eggs but congregate on screen doors, around garbage cans, in picnic areas and parks, and about anywhere food is grown or being served. They are a general nuisance, attracted to sweet or fermented plant juices. Beetles are found on cracked tomatoes, damaged sweet corn ears, overripe muskmelons, strawberries, and raspberries. The strawberry sap beetle primarily attacks strawberries. The life cycle of the dusky sap beetle is about 30 days with three to four generations per year. Some females lay more than 300 eggs and live as long as 147 days. Sap beetles also disseminate organisms that cause rots in the fruits. Some sap beetles bore into the fruit, devour a portion, and lay eggs. Larval damage is usually only slight and often goes unnoticed.

Control—Sanitation: Strawberry sap beetles are best controlled by timely and complete (“clean”) picking and the removal of over-ripe and damaged berries. Because sap beetle populations usually do not build up until the picking cycle is underway, the use of insecticides is limited by frequent harvests. It is helpful to harvest sweet corn, tomatoes, melons, berries and other produce immedi-

(Continued on back page)

Congratulations!

The latest class of Master Gardener Associates has completed their 13-week course of instruction. David Anderson, Patricia Anderson, Sandra Bereman, Janice Dillon, Bret Galloway, Nancy George, Connie Gumulauskis, Mel Hernandez, Jean Hodgson, Thomas Klinkel, Bruce McKellar, Julie Miller, Sue Olivo, Jan Orlando, Carol Reilley, Lynda Suttell, Woodson Tucker, Tom Wood, and Richard Yordani have begun their 50 hours of volunteer time to become Master Gardeners.



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ately as soon as they ripen. Remove any damaged, diseased, and overripe fruits and vegetables from the area at regular intervals. The collecting of apples, peaches, melons, tomatoes, and other decomposing fruits and vegetables and by burying deep in the soil, compost pile, or destruction is needed to eliminate beetle food sources. **Baits:** Research has shown that picnic beetles prefer banana, whole wheat bread dough, and muskmelon. As a bait, muskmelon rinds or pineapple scraps, sprinkled with a pesticide kills the strawberry sap beetle and other scavenger beetles attracted to the fruits and vegetables. Take extra precautions to keep treated baits away from humans, domestic animals, and other non-target organisms. Bait trapping shows some promise in the reduction of beetle populations. Place traps several feet away from

the picnic table or outside the garden. Discard trap contents frequently, every three or four days, and rebait traps with pineapple scraps and a bait consisting of stale beer, vinegar, molasses and water with yeast. Malathion gives the best control. However, no pesticides are legally labeled for home owner use. **Sprays:** Raspberries can be protected somewhat with repeat sprays of malathion as sap beetles begin to enter the garden. Treat three to five days before the first picking date. Use malathion 25 percent WP (wettable powder). Do not use malathion liquid as it can cause burning of the plant leaves. There is a one-day waiting period between application of malathion and harvest. Some sweet corn growers have reported limited success in killing sap beetles with carbaryl (Sevin). **Read the label** and follow directions and safety precautions as to which crops can be sprayed and the waiting

period interval for harvest to avoid illegal chemical residues.

Source:

<http://ohioline.osu.edu/hyg-fact/2000/2047.html> and

http://www.ipm.uiuc.edu/fruits/insects/strawberry_sap_beetle/index.html

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Dusky Sap Beetle