



The Virtual Gardener—To Chop or Not To Chop?

The question: Is it better to leave a freeze-damaged eucalyptus standing and hope for recovery or to chop it down and plant a new tree?

A few weeks ago I attended a Water Wise presentation where the speaker, a Tucson-based landscape designer, was asked what to do about freeze-damaged eucalyptus trees. His answer was a surprise to many, for he advised leaving the trees unless they posed a hazard and even held out a promise for their recovery. Citing previous personal observations, he said he had seen severely burned eucalyptus in Australia re-sprout from the roots and recover. If they have shown any signs of life, trees damaged by last winter's freeze have a good chance of recovery. Since I have about a dozen mature eucalyptus trees that suffered considerable freeze damage last February, I decided to look a little deeper into this subject.

There are well over 600 (some say up to 800) species of eucalyptus trees and nearly all of them are native to Australia. According to a Wikipedia [article](#) only 15 species occur natively outside Australia and of those nine do not occur in Australia. The trees are adapted to every environment on the continent from the tropical north, to the desert interior, to

the snowy peaks of New South Wales and Tasmania. We also know that some eucalyptus species such as *microtheca*, *gunnii*, and *nicholii* are well adapted to the hot, arid climate of Southern Arizona. But what about cold hardiness?

Although the coldest temperature ever [recorded](#) in Australia was slightly below -10°F that was at a location above the timberline on the slopes of the tallest peak in the country, Mount Kosciuszko. Eucalyptus species that grow at high altitudes in New South Wales and Tasmania include Snow Gums (*E. pauciflora*) and a couple of others, including *E. gunnii*, that regularly survive temperatures in the teens but not much lower. The Coolibah (*E. microtheca*), commonly grown in Arizona and California, has become adapted to cooler temperatures and, according to the *Sunset Western Gardening Book*, has a cold tolerance of from 5°F to 10°F. Thus although the near zero temperatures we experienced in southern Arizona last February were probably colder than any eucalyptus has ever experienced in its native habitat, they were not much lower than the coldest temperatures experienced by cold-adapted trees grown elsewhere in North

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America and should not have necessarily been fatal.

The Coolibahs in my yard all suffered frost damage. The trees were totally defoliated and started shedding twigs, small branchlets, and sections of bark immediately after the freeze. They continue to shed small branches to this day, although at a smaller rate. After the rains came basal and stem epicormic shoots began to appear. As time passed, the stem epicormics appeared progressively higher up the trunk until they reached a certain height, peaking out at different heights on different trees. I assume the trunks and large branches above these points are dead. The question, then, is what to do with these trees?

The dead wood will ultimately have to be removed or will fall on its own. For the time being where

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Editor

it poses no immediate threat to life and property, I will let it remain and provide habitat for birds and insects. (See back page of this newsletter.) Studies of fire-damaged eucalyptus in Australia indicate that the basal and epicormic shoots will probably regenerate a tree, although the trees may be multi-trunked, which is acceptable to me. Since most of my trees were 20 or more years old, they have well-developed root systems that should provide for rapid re-growth. Some of the basal shoots are already 3 to 5 feet long and three quarters of an inch in diameter.

I have decided to wait for another year before taking any drastic action. I will thin out the basal shoots to select the strongest to develop as leaders. For now, the fully-leaved epicormic shoots are providing energy to the trees so I will leave them as well, although they may ultimately have to be removed along with sections of surviving trunks.

Stay tuned for progress reports.

Until next time, happy surfing

Gary A. Gruenhagen, Master Gardener
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September Reminders

- ☼ Keep on watering!
- ☼ Plant cool-season flowers and veggies
- ☼ Start shopping for bulbs (The bulletin *Bulbs for Southern Arizona* is available from the Cooperative Extension offices.)

Cuttings 'N' Clippings

☼ The next CCMGA meeting is 5:00 p.m. **Thursday, September 1.** Cado Daily, Program Coordinator for the UA Cochise County Cooperative Extension Water Wise Program will give highlights of the upcoming Water Wise/Master Gardener Fall Xeriscape Tour. She will also discuss the hydrology of our region and the impact of water harvesting educational tours on water conservation.

☼ **Sunday, September 4** from 1:00—4:00 p.m. Water Wise and the Master Gardener Fall Xeriscape Tour will be held. Lovely low water residential landscapes will be open to the public for this self-guided tour. For information and maps call Joyce at 458-8278, Ext. 2141 or email

jwilliam@ag.arizona.edu

☼ It's U-Pick time again! For information and brochure go to: www.willcoxchamber.com and then Special events where you will find U-Pick.

☼ The Cochise County Fair will be held at the fairgrounds in Douglas on September 22—25. For information go to: cochisecountyfair.org



☼ The **Arizona Highlands Garden Conference 2011** will be held **October 22** in Prescott. General information, registration information, trifold brochure, preconference activities, and other details are available at:

<http://ag.arizona.edu/yavapai/ah>

A Mid-Season Report From the Veggie Patch

Let me express my extreme disappointment with this summer's monsoon. It's been muggy as all get out and the swamp cooler, umm, it don't work so good in muggy. Rains have been few and far between, at least around our neighborhood. They're mostly of the Arizona six-inch rain variety, you know, rain drops six inches apart. Meanwhile, the folks in the burned canyons of the Huachucas have had several big rains, with subsequent flooding and associated difficulties. Life just ain't fair.

On an exciting note, my wife and I watched a tarantula hawk (a wasp of the genus *Pepsis*) dragging a tarantula to its lair. Amazingly, the tarantula hawk's destination was evidently somewhere on our roof or in our eaves. The wasp actually dragged the much larger tarantula straight up an exterior wall to a height of nearly six feet before we quit watching (photo below). It was our personal National Geographic moment.



Happily, given the high humidity in July and August, I've managed to avoid powdery mildew in the squash/melon patch this year. One of the things I've gleaned from my research on powdery mildew is that it's nigh unto impossible to cure once it's established itself on a host plant, at least without using stuff I don't want on my food. A lot of the articles on eliminating powdery mildew with Neem, milk, sulfur, and such neglect to mention that important little point. Anyway, I have been engaging in a program of preventive medicine by spraying my plants with a soluble sulfur (90% sulfur, 10% wetting agents) spray weekly. I also waited to plant until early July so as to avoid a big tangle of squash leaves during the muggy months. Presumably, this aids in improved airflow through the plants. Since the squash and melon harvest is a one time deal anyway, unlike tomatoes or peppers, which yield for months on end, I don't feel I've lost anything by waiting to plant. So far, it looks good, but that may be just dumb luck.

Speaking of squash, I had my first experience with squash vine borers this summer. They did in my only zucchini plant. Yep, I finally got smart and planted just one zucchini; figuring that there's no need to supply the entire county with zucchini out of my patch. Now, with one plant, it's just enough for the immediate neighborhood. Here's a neat, and deeply satisfying, way to deal with vine borers. Go out at night with a flashlight and shine it on your squash vines down at ground level. The silhouette of the borer will be visible. If you see one, impale the

little bugger by running a straight pin or needle right through the squash stem and the borer. Leave the pin in place and be careful when you finally rip out the plant. I'm told that wrapping the bottom few inches of the squash stems with aluminum foil works too, but that doesn't sound like it's as much fun as the straight pin technique.

I ended up planting 28 tomato varieties this year for a total of 43 tomato plants. Most were planted in the last week of April. Several have died, but in general, we're getting a nice harvest for the last couple of weeks. So far, my real successes are with 'Tommy Toe', 'Purple Calabash', 'Japanese Striped Trifele', 'Black Cherry' (I erroneously called this one 'Brown Cherry' in my May 2011 article), 'Yellow Pear', and 'Abe Lincoln Virginia Sweet'. 'Gold Medal', and 'Giant Belgium have produced a few beautiful big tomatoes, but their overall yield isn't too impressive so far. 'Brandywine' has been a disappointment (again!) and my two 'Cherokee Purples', after yielding a few nice fruits in late June, have also done poorly. 'Black Krim' is another laggard. Surprisingly, neither 'Early Girl' or 'Celebrity' have produced well to date, although both plants still look healthy.

That's it for now. Don't forget to let me know what your tomato successes and failures have been!

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A garden is a friend you can visit any time.

- Anonymous

In a Desert Garden

Watson's Dutchman's pipe vine

Aristolochia watsonii

When I lived in West Virginia, I grew an ornamental form of Dutchman's pipe vine in my garden. A part of the property fence was in a well-shaded wooded area that was perfect for this vine. I love unusual plants and this one fitted that profile. The leaves and flowers were quite big. They were similar to a pipe, hence the name.

Little did I know that I was growing a native variety right here in my Arizona garden. One day, several years ago, I was walking through my yard early in the morning when the striking black and orange caterpillar of a pipe vine swallowtail came to my attention. I was surprised to find it here in my desert garden and I investigated. I found this tiny ground hugging vine, covered with these caterpillars. I knew then, this must be a variety of Dutchman's pipe vine as this is the only plant this kind of swallowtail butterfly use to feed their young.

I did some research and sure enough, there is a variety native to Arizona. This plant is found close to the desert washes, the riparian areas, and in the canyons. I was very excited that one had found its way into my little creation of paradise and I have been cultivating it ever since. This plant is very small and as it likes to creep under existing plants going mostly unnoticed. The trailing arms can reach 3 feet and the leaves are small but elongated, narrow and arrow shaped, mottled green and brown. I have never seen it bloom, but it must, mostly in late spring and late summer into fall. The



Fig. 1

flowers, I have seen pictures of, are similar to the pipes of my ornamental plant in West Virginia, only they are very small. They get pollinated by a small predatory fly. The pipes resemble rodent's ears with a hairy inside. They also produce an odor. The flies that are a pest of rodents are attracted into the flowers and the flowers close over night. When the fly is released, it is full of pollen and when it falls for the same trick again, pollinates the next flower. The fruit of the plant

Don't miss the *Water Wise* and Cochise County Master Gardeners

14th Annual

Fall Xeriscape Tour



Sunday, September 4

1 to 4 p.m.

Four beautiful low water landscapes (including two RainScape Challenge Contest winners!) in the Sierra Vista area will be open to the public for this self-guided tour.

Cochise County Master Gardeners will be at the sites to answer questions and point out the features of each landscape.

For a map to this free tour, call *Water Wise* at 458-8278 x 2141 or email jwilliam@ag.arizona.edu.

Maps may be picked up during tour hours on September 4 at 4920 Corte Vista or 5139 S. Calle Encina, Sierra Vista.



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is plump, green, and ribbed. All parts of the plant are poisonous and when they get eaten by the caterpillars (see Fig. 1) it makes the caterpillars toxic for birds and other predators.

It is an intriguing plant and I have several areas in my yard where it is growing undisturbed under more ornamentals plants. Of course, this is not a plant that is available in the nurseries, but there is a grower in Hereford that brings it to the Farmer's Markets in Sierra Vista and Bisbee.

Angel Rutherford, Master Gardener

(Editor's note: Visit Angel's amazing garden, pictured above, on the fall Xeriscape tour, September 4 between 1:00 and 4:00 p.m.)

The Agent's Observations

Q I'm getting ready to seed a new fescue lawn this fall. I wanted to know if you had any pointers that would help ensure good results. What time in the fall would be the best for seeding? Also, I'll be planting in an area that was a Bermuda lawn. I have killed the existing Bermuda and plan to scratch the area a few inches deep and add some manure as a soil amendment. I would appreciate any feedback.

A The last week of September or the first two weeks of October are the very best time to seed cool season grasses like fescue. Do you have an irrigation system installed or will you water using a sprinkler and a hose? Now is the time to put an irrigation system in and for a little extra money it can be automated, but that is your choice. Till the area well to prepare a seed bed. You do not need to incorporate any manure or organic matter. Remove any rocks or other materials like Bermuda-grass runners. Use a drop seeder or whirly-bird type seeder to place the seed. The seeding for fescue is a rate of 8 lbs./1,000 ft. Because fescue is a bunch grass it will not spread via rhizomes or stolens. Spread half of the seed in one direction, then the second half of the seed at 90° to the first application. Lightly rake the seed into the soil.

Then place ¼" of bagged composted steer manure over the seeded area and water three times a day for 10 minutes to keep the manure moist. Hardware and rental stores have a spreader they rent for manure, and it works quite well. Mow the grass when it is 4" to a height of 3" Also, cut back on the water after the grass germinates.

Q Why are my squash plants not producing any fruit? We have zucchini, crooked neck, and patty pan varieties. What is the cause and what can be done about this?

A Squash is a delightful vegetable to grow and usually produces easily for the home gardener. However, temperature and lack of pollinators can cause failure of the flower to produce a squash. Both male and female flowers are present, but separate on the same plant, and must be pollinated. If there are not enough insects, primarily honeybees, to do this for you, it may be necessary to hand pollinate the flowers. See the publication linked below for additional information. Whether the plant is producing male or female flowers can be influenced by temperature, day length, and plant maturity. It's not uncommon for young plants to produce only male flowers at first, to be followed by

female flowers. Many plants also tend to stop production of fruit during extremely hot weather. During the cooler weather of late summer and fall you should have squash if pollination occurs. The following publication from University of Florida gives detailed information on pollinating squash blooms. It is titled, *Hand Pollination of Squash and Corn in Small Gardens*, and is found at:

<http://edis.ifas.ufl.edu/hs398>

Q My zucchini squash have two problems. The blossom end is soft and turning black. The second problem is the leaves are turning white. What are these problems and what can be done about them?

A Blossom end rot is caused by the plant's inability to take up calcium to form cell walls. Calcium is taken up in the water stream. Irregular irrigation is the cause and can be helped by using a drip system and



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A group (“wake”) of turkey vultures catching the morning sun in one of the Virtual Gardener’s freeze-damaged eucalyptus trees.

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mulch. Young fruiting plants are more likely to have this problem, but calm down as they age—kind of like humans! This condition can affect tomatoes, peppers, cucumber, melons, and other squash types. You can cut off the affected parts and eat the remaining flesh. Calcium foliar sprays are available to help relive this disorder. The powdery substance on the leaves is powdery mildew. It will not kill the plant but will reduce its effectiveness to photosynthesize. This disease needs free moisture to begin growing then prefers drier weather. You can spray infected leaves with a home remedy of baking soda, a lit-

tle dish soap, and cooking oil. Recipes are available on line. No guarantee it will work. You can purchase a fungicide to cure the problem. Many plants species can have these diseases. Take an infected leaf with you to a nursery so they can recommend the proper product. For more information see:

<http://ag.arizona.edu/pubs/crops/az1033.pdf>

This webpage addresses powdery mildew for melons, but the information applies to squash as well.

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**MEDICAL MARIJUANA
ACT (Proposition 203)
and
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Recently, University of Arizona Cooperative Extension faculty received a few inquiries from legal growers of medical marijuana for advice on treating pests and fertilizer applications. Policies have been approved at a recent CALS Executive Council meeting and are available on the Master Gardener Web Site at

<http://ag.arizona.edu/cochise/mg/Medical%20Marijuana.html>

