



The Virtual Gardener—Chiltepin Peppers

Last spring I joined other Cochise County Master Gardeners on a special tour of the gardens at Tohono Chul Park in Tucson hosted by Curator of Plants, Russ Buhrow. At one point we passed by some small bushes growing in the understory around some trees. These bushes were covered with dried, red fruits the size of large peppercorns. Russ told us they were chiltepin peppers and invited us to crush one between our fingers and taste it. They were spicy, of course, but had a particularly pleasant flavor.

I had forgotten about the peppers until just a few weeks ago when I read an [article](#) in the *Sierra Vista Herald* about a Mexican farmer, Francisco Alfonso Lopez of San Jose de Baviacora, Sonora, who had discovered a way to cultivate chiltepins and has developed a less spicy variety. The article went on to explain that chiltepins were difficult to grow because they depend on birds to

scarify the seed. Scarification is the process by which the hard coats of seeds are broken to allow water and gasses to pass through so that the seed can begin to germinate. In the case of chiltepins, the seeds are scarified in nature by passing through the digestive system of birds. Francisco claims to have developed an artificial method to emulate that process.

The third chapter in the story of my newly rekindled interest in chiltepins began when I decided to buy some in a local market. I found they are as expensive as gold, well maybe that's an overstatement. But I exaggerate to make a point. According to one source on the web, the wholesale price of chiltepins is \$50 a

pound! They are so expensive because most are harvested by hand in the wild rather than being cultivated, although

(Continued on page 2)



Inside this issue:

Cuttings 'N' Clippings	2
February Reminders	2
Goat's Heads	3
A California Transplant	4
Upcoming Pruning Demos	4
Pruning Basics	5
High on the Desert	6

Cochise County Cooperative Extension

www.ag.arizona.edu/cochise/mg/

1140 N. Colombo, Sierra Vista, AZ 85635

(520) 458-8278, Ext. 2141

450 S. Haskell, Willcox, AZ 85643

(520) 384-3594

(Continued from page 1)

some are also grown commercially.

Chiltepins—also known as bird peppers or simply as tepins—are known botanically as *Capsicum annuum* var. *glabriusculum*. They are native to North, Central, and South America and are often referred to as the wild ancestor of all sweet and hot peppers—*Capsicum annuum* of many different varieties—grown commercially today. Their range extends from northern Chile through Mexico and into the Southwestern United States. The Native Seeds/SEARCH (by the way, the Director of Native Seeds/SEARCH, Bill McDorman, will be a speaker at the High Desert Gardening & Landscaping Conference) and the U. S. Forest Service have created a 2,500 acre Wild Chile Botanical Area in Rock Canyon in the Coronado National Forest just west of Tumacacori, allegedly the northern-most natural occurrence of the pepper in Arizona. It is also the official “native pepper” of Texas.

Chiltepins are often described as being extremely hot, sometimes even as hot as a habenero. Their heat has been measured at 50,000 to 100,000 SHU on the Scoville scale which, compared to a jalapeño at 3,500 to 8,000 SHU, is very hot. If that were accurate for all chiltepins, they would be off the scale for me. But I have found the ones I have sampled to be quite pleasantly picante. An explanation for the range of hotness may be differences in the environment in which they grow in the wild. One theory is that peppers grown under very dry conditions are not as hot as those grown

under wetter conditions. If that’s the case, perhaps the drought has some benefits after all. I guess we’ll just have to wait and see if the chiltepins get hotter when the drought breaks.

In addition to their raw “heatpower,” chiltepins have another characteristic that mitigates their bite. They have a spiciness that in Spanish is described as *arrebataado*, or “rapid,” meaning that the sensation of heat is immediate but rapidly dissipates. I can testify to the accuracy of that description.

So, if you don’t want to pay \$50 a pound for chiltepins, can you grow them yourself? I think so, although there is a lot of conflicting advice on the subject on the web. If you grow your own, however, be aware that ones you grow at home may be hotter than the ones you buy in the store.

Next month I will explore the techniques for growing chiltepins and other peppers. Stay tuned...

Until next time, happy surfing.

Gary A. Gruenhagen, Master Gardener
virtualgardener@cox.net

February Reminders

- ◆ Winter prune
- ◆ Prune roses
- ◆ Cold-moist stratify seeds
- ◆ Plant bare-root trees
- ◆ Prepare spring planting beds
- ◆ Clean and repair drip irrigation systems
- ◆ Finalize spring garden plans
- ◆ Keep watering!

Cuttings ‘N’ Clippings

✿ The **February 2, 2012** CCMGA meeting will be held at 5:00 p.m. in the Public Meeting Room at UAS.

✿ High on the Desert

The **19th High Desert Gardening & Landscaping Conference** is in the final planning stages and will be held **February 16 & 17, 2012** at the Windemere Hotel & Conference Center in Sierra Vista. Registration forms are available at the Master Gardener web site:

<http://ag.arizona.edu/cochise/mg/nlpdf/2012%20regis.pdf>

or in the Cooperative Extension offices. For more information please call Joyce at (520) 458-8278, Ext. 2141.

✿ The **Saturday, February 4**, Water Wise presentation from 9 to noon, will be *Well, What do We Know?* This talk will cover all aspects of private wells in AZ, including basics of hydrology and geology, well construction, maintenance, regulations, water quality, drinking water standards, and home water treatment options. The Presenters will be Dr. Janick Artiola, UA Water Quality Specialist and Gary Hix, President, Arizona Well Water Association. The free presentation will be held in the Public Meeting Room at UAS. For a list of 2012 Water Wise presentations go to:

<http://cals.arizona.edu/cochise/waterwise/events.html>.

✿ The 2012 New Mexico Master Gardener State Conference will be held at NM State University in Las Cruces on **June 6–8**. Information is available on Facebook at: Dona Ana Co. Master Gardeners, e-mail at rboor@q.com or (575) 382-7478.

Goat's Heads—There Are Two Kinds?!

I came across the following little ditty in Eliot Coleman's book, *The New Organic Grower*. Mr. Coleman credits an 1829 publication called *New England Farmer* as the original source.

**Since the best way of weeding
Is to prevent weeds from seed-
ing,
The least procrastination
Of any operation
To prevent the semination
Of noxious vegetation
Is a source of tribulation.
And this, in truth, a fact is
Which gardeners ought to
practice,
And tillers should remember,
From April to December.**

Aside from the fact that here in Cochise County we really ought to practice weeding “from December to December,” the words of the poem contain the real secret to preventing weeds: Don't let weeds go to seed! (Bermuda grass, with its tenacious rhizomes, well, that's another matter.)

Last summer, right in line with the “don't let it go to seed” advice, I made a serious attempt to rid my property of those nasty little burrs that I call “goat's heads.” They go by many other names, too, some of which would

be inappropriate for this publication. If you don't know what a goat's head is, look at the picture of one stuck in someone's thumb; I'm sure you'll recognize them.

I spent a lot of time last year looking for the grass that bears them and pulled from the ground every nasty burr bearing plant I found. By the end of summer, I thought I had pretty much won the battle. As summer turned into fall; however, I noticed that our carpets once again contained those nasty little, bare-foot seeking goat's heads. %&*\${@!*&%#\${@! How can this be? I pulled 'em all!



As it turns out, there are two plants that produce similar burrs, both of which unfortunately grow well in the high desert. One is my already discussed grass, of the genus *Cenchrus*. The other is a low lying vine, *Tribulis terrestris*, also commonly called puncture vine. The grass is a normal looking clump-type grass that proudly shows off its evil burrs. It's pretty easy to spot. The vine, low growing though it is, is also easy to spot, but its burrs, not so much. Growing very close to the ground, so low that a lawn mower passes right over it without damaging it, it's easy to ignore. Based on what I've read about the vine, it's tough to truly eradicate as it can grow back from a very small piece of root. Nonetheless, every vine pulled in any given summer is one that won't produce



goat's heads in that summer. The accompanying photos will give you a good idea of what both plants look like.



Now that I know there are two plants, I will renew my eradication efforts next year and hope not to find yet a third plant that produces these painful little carpet bombs. I hope you'll do the same. A world with fewer goat's heads is a world that is much closer to paradise.

Bill Schulze, Master Gardener
billwithccmga@gmail.com

**A garden is a
friend you can
visit any time.**

- Anonymous



How Does a California Transplant Survive in Cochise County?

Between the time of purchasing our lot in Sierra Vista in 2004 and permanently moving to this foreign country of Cochise County in 2010, I made inquiries into becoming a Master Gardener in Ventura County. After all, the home improvement stores sold identical items in the gardening section. What's the difference between sea level on the southern California coast and 4700' elevation in southeast Arizona? If I can plunk anything into the ground on the coast, water and watch it grow, I should be able to do that here— not a problem. Right?

We listened to our landscaper's suggestions for the front yard, including the "sweet" acacia tree (*Acacia smalli*)—a beautiful tree that provides shade for the courtyard. Oh, forgot to mention that it has daggers hidden under its leaves and drops a multitude of pods. If those pods aren't collected, there will be a grove of baby acacias emerging during monsoon season. Surprise! By the time the backyard landscaping was designed, I had done a little research in the *Sunset Western Garden Book* by zones (yet, still trusting the home improvement stores – some people are a little thick-headed). The yard was divided into sections—scarce water and an abundance of water. That meant a huge boulder with Mexican bird of paradise, ocotillo, saguaro, red barrel cactus, and knife acacia (*Acacia cultriformis*) on one side and a sort of English garden on the other. Yes, another sweet acacia was also planted. That was during the year I didn't know to pick up the pods,

but was careful of the thorns. I was still attempting to re-create California, so there had to be an elevated flagstone garden bed along the back wall. After all, there's lots of sun here for a lush flower garden! Red-tipped photinia line the street-side wall, and roses along the other side wall. An analog drip irrigation (also known as drip "irritation") system was installed and away we went!

Let's see...desert landscaping—cacti and succulents in pots—great idea! Our friends in California sent us off to Arizona in 2010 with a wonderful party and a carload of succulents. I had a wonderful time shopping for the perfect pots! Then went shopping for the perfect landscaping frost-protection cloth; then transferred pots to the garage; then outside again for some sunshine; then back in again; then... oh, my! Naturally, much of Cochise County suffered way below-freezing temperatures the first week of February 2011. Many of those succulents now inhabit our bedroom.

All sarcasm aside, our landscaping was featured on the Spring 2008 Water Wise Tour and has weathered quite well. Most plants have thrived; some have not. This California transplant attended the 2011 High Desert Gardening & Landscaping Conference, completed the 2011 Master Gardener course and is in the process of accumulating volunteer hours for certification. After fifty years in Southern California, I am looking forward to new and rewarding experiences in this foreign country called "Cochise County."

Karen Silva
Associate Master Gardener

Upcoming Pruning Demos

Rose Pruning

A workshop will be given **Saturday, February 18** from 2:00—4:00 p.m. by Cochise County Master Gardeners. The location is the UA South Rose Garden, 1140 N. Colombo, Sierra Vista. Bring your pruners and practice what you learn!

Pruning Fruit Trees

Carmen Miller will have a Water Wise workshop in Bisbee on **Saturday, March 3** from 1:30—3:30 p.m. at The Weather Station Inn, 909 Tombstone Canyon, Old Bisbee.

Pruning Landscape Plants

Another Water Wise workshop will be given **Saturday, March 3**, from 9:00—11:30 a.m. by Cochise County Master Gardener, DeForest Lewis. The location is the UA South Public Meeting Room, 1140 N. Colombo, Sierra Vista.

All workshops are free and open to the public. For more information on any of these workshops call the University of Arizona Cooperative Extension at 458-8278, Ext. 2141

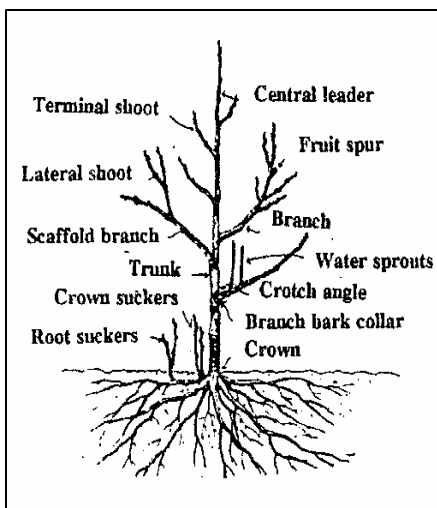
To see the Master Gardener Manual on Pruning, go to:

<http://ag.arizona.edu/pubs/garden/mg/pruning/index.html>



Pruning Basics

The time is fast approaching when dormant pruning and training of ornamental shrubs, roses, shade trees, evergreens, fruit trees, grapes, and brambles should be completed. Annual pruning is done to keep plant material producing young growth where production of flowers and fruit are wanted. Generally fruit is produced on at least one-year old wood (as in the case of peaches, grapes, and brambles) or two-year or older wood (as is the case with apples and pears). Dormant pruning is best when completed before buds swell and open. However, pruning can be done through the flowering of fruit trees although competition with honey bees may be painful! Grapes may be pruned until small leaves are present, though they will bleed, but that is not damaging to the plant. Brambles and roses can also be pruned when small leaves are present. Generally pruning of flowering ornamental shrubs is done when flowers are spent. Deciduous

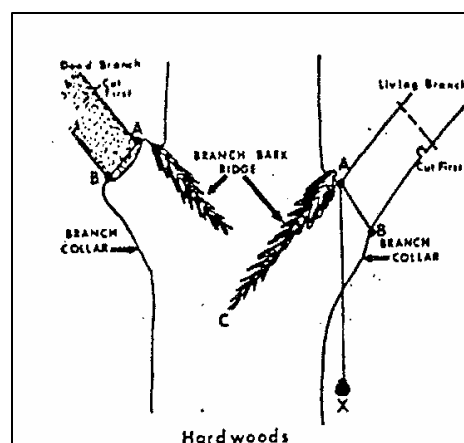


shade trees (those that lose their leaves in the winter) and conifers are pruned when dormant. Evergreen shrubs can be pruned during early spring.

The first rule of pruning is to remove any dead, diseased, broken, rubbing, or parallel branches. A parallel branch is one directly above or below the desired branch and shades it out or is shaded itself. Also, remove any root suckers, water sprouts, or branches positioned low on the trunk. When making cuts do not cut through the branch collar. Cutting through the collar will cause poor healing and encourage disease (see illustrations). Generally pruning sealer or paint is not needed for most pruning cuts. In some cases, typically ornamentals, these compounds can aid in decreasing desiccation and disease, especially if large cuts are made. One example is fruitless mulberry which is susceptible to sooty canker disease.

The most critical time to train fruit trees is during the first three years from planting. The first dormant season select three to five limbs that are well spaced around the tree with the lowest branch about two feet from the ground. This is the first whorl of scaffold branches and should also be well spaced up the tree trunk between two and four feet from the ground. Branches should be spread from the main trunk at a 50 degree angle using spreader sticks, ties, or weights. This will encourage good tree structure and initiate early fruiting. When a one-year old shoot is tipped, more growth will occur.

However, if cuts are made into two-year old or older wood, re-growth is much less. Thinning cuts are made at the base of shoots to remove them completely from a branch.



NATURAL PRUNING STEPS

1. Locate the branch bark ridge
2. Find Target A - outside of branch bark ridge
3. Find Target B - swelling where branch meets branch collar
4. If B is hard to find - drop a line at AX. Angle XAC = to angle XAB
5. Stub branch to be pruned
6. Make cut at line AB

Apple trees are trained and pruned into a central leader, a tree is formed that is pyramidal in shape. Peach, nectarine, sour cherry, and Japanese plum are trained and pruned as an open-center tree, which looks like a wine glass. Pear, apricot, European plum, and sweet cherry are trained and pruned as a modified central leader, which is similar to a central leader tree, but the top of the leader

(Continued on back page)

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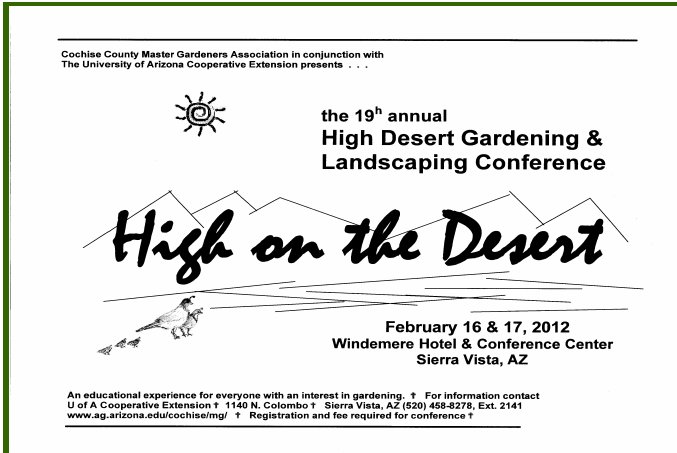
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Hurry!!!

February 16 & 17



(Continued from page 5)

of the tree is pruned back to encourage regrowth.

Mature neglected trees that need renovating are not just a one year project but will take several years to correct. Half the wood of a peach, nectarine, or Japanese plum can be removed in one year, and one-third of the wood per year for apples, cherry, apricot, and European plum. Remove only one-tenth of the wood per year of pear to reduce vigorous regrowth which is susceptible to a bacterial disease called fire blight.

(Note: Reprinted from the February 1998 Cochise County Master Gardener Newsletter written by Robert E. Call, Horticulture Agent.)



High on the Desert

Pre-registration is required!

Date _____

Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____

E-mail _____

Full Conference \$100.00

Thursday & Friday, February 16 & 17, 2012

One Day \$65.00

Check one: ____ Thursday ____ Friday

Amount Enclosed _____

(No refunds after February 10, 2012)

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1140 N. Colombo

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Sierra Vista, AZ (520) 458-8278, Ext. 2141
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