The Virtual Gardener—Using Treated Wood in Vegetable Gardens

Recently I was asked by a reader about the safety of using wood treated with preservatives in a vegetable garden. After a little research, here's what I found out about the subject.

Two processes are commonly used to treat wood to resist rotting—coating with pentachlorophenol (penta) and creosote and pressure treating with chromated copper arsenate (CCA).

Wood treated with creosote is distinguishable by its dark color and recognizable odor. That treatment is now pretty much reserved for telephone poles, railroad ties, bridge timbers, and other commercial products. The creosote used as a wood preservative has nothing to do with the plant (Larrea tridentata) commonly found growing in the deserts of Southeastern Arizona but is produced by the distillation of tars derived from bituminous coal. According to the U. S. Environmental Protection Agency (EPA) it is a carcinogen. An EPA fact sheet states that although creosote may leach into soils for a limited distance, the amounts actually absorbed by plants, if any, depends upon many factors.

What you commonly see in lumber yards is the greenish colored pressure-treated (PT) lumber that has been impregnated with CCA. CCA contains arsenic and is classified by the EPA as a carcinogen. The arsenic is only released in dangerous amounts when the wood is burned. However, if the wood has been buried, small amounts of arsenic will leach into the soil over time. According to one study done

in 1979 the amount of arsenic leached from PT wood in a wet climate was limited to soil within 6 inches of the wood, permanently contaminating it. Another study of vegetables (carrots, tomatoes, green beans) grown in soil contaminated with a higher level of arsenic than what would leach from PT wood, showed that the vegetables had only miniscule increases in arsenic levels (far within EPA standards). The health danger to you from planting a vegetable garden in an area bounded by PT wood is probably minimal. But, to be on the safe side, don't use treated wood around vegetable gardens. If the PT wood is already in place and has been in the ground for some time, remove the wood from the soil. Remove the soil 6 inches on either side and below where the wood was and use it someplace where food will not be grown. Replace that soil with some from an uncontaminated location and plant your garden. Do not burn the PT wood or use it to contain compost.

For more in formation, check out these Web sites or do a Google search on using treated lumber in gardeners:

http://www.ecologycenter.org/factsheets/pressure-treated_wood.htmlhttp://en.wikipedia.org/wiki/Creosote

Until next time, happy surfing.

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

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Cochise County Cooperative Extension

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Chiggers

With the monsoon rainy season imminent, it's time to take a look at an especially nasty critter that attacks gardeners and other outdoor folk in our part of the world; the chigger! Also known as jiggers, red bugs and more than a few names not suitable for this publication, chiggers are not insects; they are members of a group of mites designated as Thrombiculidae. I suspect the Latin name translates to "spawn of Satan." Being mites, chiggers are related to spiders, ticks, and scorpions. The form of chigger that attacks humans is actually the larval stage of the mite. In the larval stage, they are reddish and are about 1/150 of an inch in diameter, too small for most folks to see with the naked eye. As adults, chiggers are about ten times as large and they spend their adult lives eating vegetation. Only in the larval stage do they feed on humans and other creatures.

Much of the folklore regarding chiggers is incorrect. They do not suck blood; they do not burrow into your skin. Actually, they dine on skin, digesting the skin by liquefying it with their saliva prior to ingestion. It is the human body's reaction to their saliva that causes the oh-so-itchy reaction to their bite, which is in itself painless. Because their mouths are very small, they must find a tender spot to begin their feast. This is why their bites tend to be congregated in "sensitive" places. Once they find a tender spot on



which to feed, they settle down and actually eat for several days before becoming engorged, during which time their color changes to yellowish. When they're done eating, they drop off to find a place to molt into a nymph, the next stage of their lives.

It takes several hours, maybe even a half a day or more, for the bite site to begin itching. At this point, the victim usually scratches the itchy spot and the chigger is brushed off or killed. Humans are not the chigger's preferred targets; they normally feed on birds, small animals, and reptiles. Ironically, the allergic reaction that the chigger bite brings on in humans means the chigger doesn't complete its life cycle. This is not a good strategy from an evolutionary point of view, but it may be small consolation to the human victim. Interestingly, there are chigger species in other parts of the world that cause no reactions in their human victims.

To help control chiggers on your property, keep the grass in your yard short and well mowed. Clear away brush and weeds and eliminate sources of food, water, and shelter that might attract small animals that can serve as hosts to the chigger.

If you must venture into chigger territory, wear tightly woven long sleeved shirts and long pants. Tuck the pants into the socks or tape the bottom of the pants. Last summer, after we discovered we had chiggers in our yard, I even wore long underwear underneath my clothes when mowing the tall grasses in our back yard. Yep, they scare me that much! Chiggers can be repelled by mosquito repellants, so applying these to clothing (Continued on back page)

Cuttings 'N' Clippings

- * The next CCMGA meeting is 5:00 p.m. Thursday, **July 2** at the University of Arizona South Campus Public Meeting Room.
- * Newly elected officers for 2009-2010 Cochise County Master Gardeners Association are:

President: Carolyn Gruenhagen V President: Terrie Gent Secretary: Eleanor Templeman Treasurer: Donna Blackburn

* The next Water Wise event is on **July 11** from 8:00 a.m.—noon. It is a Rain Water Harvesting Tour. Maps will be available from the Cooperative Extension Office after July 1. Call 458-8278, Ext. 2141 for a map or information.

Local Farmers Markets:

- Sierra Vista's Farmers Market is held Thursdays from noon to 4:00 p.m. on the NW corner of Carmichael and Wilcox.
- Bisbee's Farmers Market is held Saturdays from 8:00 a.m. to noon in Vista Park in Warren.
- Douglas Farmer's Market is open Sundays from 9:00 a.m. until noon in Raul Castro 10th Street Park.
- Elfrida's Farmers Market is Fridays from 2:00 to 6:00 p.m. in the Elfrida Community Garden located just north of Elfrida off of Hwy 191 behind the clinic.
- ◆ St. David opened a new Farmers Market on June 27. It will be held from 9:00 a.m. to 1:00 p.m. on Saturdays at the St. David School's solar ramada area just off Hwy 80.

The Story of my Trumpet Vine—Campsis radicans

There are many plants in my little garden and most of them have a story attached to them. Even if I can't remember the name of some, I can remember where it came from, who gave it to me, or where I took cuttings. Some of my plants have wonderful memories attached to them of people who meant a lot to me, and I will cherish that memory forever.

One of those special plants was the beautiful red trumpet vine growing on the back wall of my house, covering the ramada between the two covered porches. This vine is native to the eastern U.S. My plant came from West Virginia. There the trumpet vines grow in the hills on the bottom of trees and climb up into them all the way to the sun. It can grow up to 40 feet, but it doesn't do the damage to the tree like the wisteria does. A wisteria will eventually smother the tree and kill it. It is not as vigorous as kudzu, a vine that destroys whole landscapes by growing over everything.

For a few years my husband and I were living in his home state of West Virginia. There we met his two distant cousins; two lovely ladies in their late seventies, avid gardeners, and going strong. The two ladies lived on the top of a hill with a very steep road. It was a magical location with two little cabins surrounded by trees, azaleas, rhododendrons, and every garden flower one can imagine. It was here I saw this wonderful vine growing on the bottom of trees reaching up into the sky. The big bright reddishorange tubular flowers attract hummingbirds.

After a few years, we sold our house in WV and decided to travel in our RV, see the wonders of this beautiful country, and eventually relocate in the West. On our last day, with the house sold, our belongings in storage, the RV loaded, the two ladies came to say their goodbyes. Liz, the older one, brought a present. She had dug up a runner of the soadmired vine and planted it in a onegallon container. She wanted me to have a souvenir from the hills. We were ready to live in close quarters for the next several years. Well, I always was a gardener, and I had the most beautiful garden in WV and I grew wonderful house plants. It was hard to leave all that behind. So, on the RV dining table was a window box planted with cuttings from all my important house plants, plants that had memories attached to them—plants that are growing in my house now. I thought it was very sweet of the two ladies and because I had an understanding husband, needless to say, the trumpet vine made the journey with us. We traveled the U.S. for three years. The vine spent the time we were on the road in the bathroom with a skylight. When we stayed in a RV park, the vine was outside, taking in the sunshine. Eventually, I upgraded to a three gallon container.

We finally decided to build a house in Sierra Vista. As soon as the house and the surrounding wall were built, I planted my vine next to the wall on the front of the house. This was not a good choice. The location was too hot, and the vine fell prey to bugs. This vine, as it grows in the shade of the trees, likes to have its roots cool and shaded and the top in the hot sun. Once established it is very drought tolerant. I dug up my vine and relocated it to the backside of the house where I planted it next to the



chimney where it was shaded by a ramada.

This vine climbs by attaching itself to structures and the tendrils can do damage to stucco and painted wood. It is deciduous, can be cut down to the ground in winter, and it will recover quickly. It will take three years for it to reach its full growth, and that is what it took for this one to cover the structure and bloom profusely.

My trumpet vine was happily growing over the ramada for eleven years when I decided to take the ramada down and have a glassed sunroom constructed The ramada was taken down, the vine cut off, a concrete slab poured, and the sunroom built. I really felt bad for taking out this lovely vine. Spring came, and to my surprise, two starts of my trumpet vine were growing on the side of my sunroom. I put up two trellises and had a strong shade structure built in front of the building. It looks like I will be able to train the vine over it this season.

This is one hardy plant— *Campsis radican*. It also is available in hybrids, some with yellow or orange flowers. Last year, I found a variegated one that I planted next to my gazebo.

Angel Rutherford, Master Gardener

Postcard From Picturesque Pinaleños

As we began our journey up Swift Trail from the base of the mountain to Southeastern Arizona's highest "sky island," Mt. Graham, we were spellbound by the spectacular scenery,



Next we arrived at Ladybug Saddle, elevation 8,500 feet, 17.1 miles, said to have derived it's name for the large number of ladybugs which concentrate here during the summer. It is the location for several trailheads, as well.

the

growth

after their

winters

nap.

At 21.2 miles on the trail. Snowflat is where "my puddle," a small pond, exists in all its glory. I've taken many photos from and around this area. This area hosts undeveloped camping where reservations for a large group can be made though the District Forest Service Office. I will be back here in a few days to begin documenting the abundant flora and dancing grasses awakening.

At 21.8 miles, the road on our right leads to Heliograph Lookout Tower. Persons may walk up to the tower on the road or an experienced hiker can take the trail that starts from our Shannon Campground. This is where we are camp hosting for the next several months. Shannon has 11 camping sites and is at an elevation of 9,100 feet. A fee is required for camping and picnicking.

Then at 23 miles, just beyond the end of the payment, the road leads to Treasure Park where drinking water is available for the next few months. Undeveloped camping opportunities

their meexist here for large group reserdallion vations. At this point Engelleaves mann spruce (Picea engelmansoft nii), southwestern white pine spring (Pinus strobiformis) and corkbreezes and bark or subalpine fir (Abies white fir lasiocarpa var. arizonica), (Abies conadorn the mountainside. color) Travel 23.3 miles and you a d o r n e d could enter Hospital Flats were with new

the flora is spectacular during the summer rains. Here the elevation is 9.000 feet with tent spaces available. With many more points of

interest in between Hospital Flats and the end of the road at the lake, the hot spot of the mountain is, of course, Riggs Flat Lake and recreational area



at an elevation of 8.600 feet. A fee for camping and picnicking is required.

A former Kansan, I am, a true Arizonan.

Karen Hooper Master Gardener Associate

filled with spring and scents of the desert, as we began our incline. From the desert floor to the green mountainside just awakening from a long winters nap, we enjoyed the nostalgic smells of pine and clean mountain air that I remember from my childhood vacationing in Colorado. We traveled Highway 366 commonly known as Swift Trail.

There are several wide spots along the trail for a nice picnic or just exploring before reaching Arcadia Campground on our right. It is 11.6 miles up the trail, an elevation of 6,700 feet. This is a fee per unit area required for camping and picnicking.

Just before Turkey Flat, a summer home area, 7,500 feet, 14.0 miles, we encountered the advance scouting party eagerly awaiting our arrival for the next five or six months Greeting us were Alvin, the chipmunk, Jaws, the Squirrel and most enthusiastic, was Mr. Tom Turkey, sprinting across the roadway in front of our rig.

As we traveled thru the Turkey Flat area with ponderosa pine (Pinus ponderosa), Douglas-fir (Pseudotsuga menziesil), aspen (Populus tremuloides) just opening

Robort E. Call

Robert E. Call Extension Agent, Horticulture

> Carolyn Gruenhagen Editor

The Agent's Observations

When there is a swarm of bees can they be saved? Why do they swarm? Can they be sent to pollinate crops somewhere? Must they be destroyed? Are they good bees, or are they renegade gang-bees that must be destroyed? What is the difference? There are so many bees in these swarms, that it seems a terrible thing to destroy them if they can be useful to farmers.

These swarming honeybees are mostly Africanized Honeybees (AHB). AHB were introduced into Brazil in 1946 and they have moved both north and south. I am not going to go into the history of how the AHB has moved into our area. There are countless histories of AHB on the World Wide Web. Swarming is a big part of what unmanaged honeybees do. AHB do swarm, and people in the southwest have to contend with these swarms. European honeybees (EHB) swarm also but not as often as AHB.

Swarming is the mechanism honeybees use to control their colony populations, spread into new areas, and begin new colonies. About half of the hive's population and the queen leave to find a new home. Swarms for the most part are not dangerous because the honeybees have no young or food stores to protect, unless they are actively pro-



voked. They are looking for a new home and once they find a cavity to nest in they will be off in a cloud of bees.

AHB can be very dangerous when one is near an established colony and can pose a threat to public safety. Therefore many believe it is best that these swarms be destroyed before they reach the point of being a threat. I have kept honeybees and have tried twice to "box" a swarm of AHB using normal procedures. My intent was to replace an AHB queen with a EHB queen. I even enticed the swarm to stay by placing frames of honey and brood in the box. When I returned in the evening to collect the box the AHB were gone. For successful collection a beekeeper would have to find the AHB queen in the swarm and put her in a "queen cage" to keep the other honeybees around. Some beekeepers will do that and "box" the swarm.

Even if all the AHB were killed, there would still be enough pollinators for backyard gardens and orchards. Using AHB for pollination is not safe because they are much more ag-

gressive than EHB and swarm more often. Beekeepers around the country work very hard trying to keep their honeybees gentle and healthy so they can move their bees to farmers' fields to pollinate crops. In areas where there are acres and acres of plants needing pollination there are not enough solitary bees to effectively pollinate these crops. Beekeepers rent their hives out to these farmers to get the needed pollination. In fact honeybee pollination contributes over 10 billion dollars worth of food for the U.S. each year. EHB have been managed by beekeepers for hundreds of years. They have been selected for honey production and gentleness. AHB have been managed by beekeepers for only a short time. Certainly not long enough for the genetic manipulation necessary to control the risk factors of their behavior. Maybe over time these bees will become useful, but it will take many years. Maybe our grandkids will be able to rear the AHB safely!

Source: http://www.unce.unr.edu/areas/southern/newsletters/
June 8, 2009

Robert E. Call Extension Agent, Horticulture

July Reminders

- Keep the pests under control
- ♦ You can still plant something
- ♦ Keep watering!

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St. David Farmers Market

Opens Saturday, June 27th

from 9:00 a.m. to 1:00 p.m. at the St. David School at 70 E Patton St.

(Hwy 80.) The farmers market will be held in the school's Solar Ramada Area or indoors in "K" Hall in the event of high winds or rain.



 $(Continued\, from\, page\, 2)$

can be of help, particularly around openings such as pant cuffs and shirt sleeves. Chiggers also dislike sulfur, so dusting clothing with sulfur is an effective deterrent. Finely powdered sulfur can be purchased at most pharmacies. I put the sulfur in an old sock, then softly beat the area around the bottom of my pants and belt line with the sulfur filled sock. Some folks find sulfur to be an irritant, so be sure and test a small area of your skin with the sulfur before using a large amount of it. Also, wet sulfur has a strong, unpleasant aroma.

Fortunately, it typically takes quite awhile, a couple of hours or more, for a chigger to find an appropriately tender spot to dine if you've dressed protectively. Also, chiggers are easily brushed off; they do not cling well to you even after they bite. To take advantage of

these facts, take a warm, soapy shower as SOON as you're done with your yard work. Lather ALL of your body well and you'll wash the chiggers away before they have a chance to add you to their dinner menu. Leave your chigger infested clothing outside until washing it in soapy water to eliminate residual chiggers. After belatedly following these procedures last year, I successfully avoided even so much as a single chigger bite for the remainder of the summer.

If you do get bitten, and those of you familiar with chiggers know that it's easy to have dozens or even hundreds of bites from a single encounter, over-the counter anti-itch formulations can provide temporary relief, although not always enough.

Chiggers can move surprisingly quickly for their small size and will rapidly occupy a new item placed in their surroundings, so an easy way

to see if an area has chiggers is to put down a sheet of dark paper or cardboard. Place the sheet vertically if possible (try that trick with our winds!). After leaving the paper for ten or fifteen minutes, examine it with a magnifying lens, paying particular attention to the upper most surfaces. Chiggers are the ittybitty red dots running around on the paper. Unfortunately, chigger infestations tend to be quite local, so one spot may be chigger free, while a spot a few feet away can have a significant population of the pest.

Here's hoping you manage to avoid chiggers this summer.

Source: http://mdc.mo.gov/ nathis/arthopo/chiggers/

Bill Schulze Master Gardener Associate