



Don't Part with Your Poinsettia; Don't Compost Your Christmas Cactus

Michael Pizza, El Dorado County Master Gardener

How many of our holiday plants dive into the dumpster for the New Year? Unfortunately, most! But with very little work, and a great sense of achievement, one can easily carry over one's holiday plants to the next season! Let's start with the Poinsettia calendar, then go on to the Thanksgiving and Christmas Cactus calendar.

Poinsettia:

Like most plants, the Poinsettia requires soil, light, heat, water and a bit of humidity.

January, February and March: Just water the Poinsettia whenever it feels dry.

April: Gradually decrease the water.

May: Repot in a larger pot with a light/loose potting mix. Cut all stems to four inches, just above a node. Begin a very light fertilizing program with every other watering.

June: Move the Poinsettia outside in the dappled shade if the nights are above 50°. Continue watering and fertilizing lightly.

July: Pinch each stem by 1 inch, just above a node. Water and fertilize lightly.

August: Continue watering and fertilizing lightly.

September: Continue watering and fertilizing lightly. Move plants inside to a very light location when it dips below 60° at night. Continue watering and fertilizing lightly.

October: Continue watering and fertilizing lightly. Keep in a very light location. Make sure they get the normal 12 hours of darkness. No need to put them in a totally dark closet.

November: By the end of November, you will begin to see the flowers (bracts) form. Water lightly.

December: Enjoy and water lightly.



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Note: Both Master Gardener offices will be closed December 23–January 6.

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Don't Part with Your Poinsettia; Don't Compost Your Christmas Cactus (Continued from page 1)

Thanksgiving Cactus and Christmas Cactus:

The Christmas Cactus and the Thanksgiving Cactus originate not in a desert, but in the mountains and jungles of Brazil. There they grow, like orchids, in the crotches of trees. But...how can we tell them apart? You can tell the Thanksgiving cactus (*Schlumbergera truncate*) apart from the Christmas cactus (*Schlumbergera x Buckleyi*) by the shape of its leaves. The Thanksgiving Cactus has sharply serrated or "toothed" leaves as compared to the more rounded leaves of the Christmas cactus. Most of the cactus you see in our local stores are the Thanksgiving Cactus.

January, February: 60 day rest, 50-60 degrees, limited water.

March, April: Prune to your desired shape (keep the cuttings, see below) and repot in a larger pot with very light/loose potting mix every 3-4 years.

May through Sept: Move plants outside in the dappled shade. Keep them moist, not wet. Begin a very light fertilizing program with every other watering.

October: Bring plants inside when it dips below 50° at night. Keep them in a very light place. Water very sparingly.

November, December: Maintain moist, not wet, soil and enjoy!

If you did not get any blooms on your Thanksgiving or Christmas Cactus this year or experienced bud drop, it is likely that they did not receive enough light or they received too much water.

In March, when you are pruning or repotting your Thanksgiving or Christmas Cactus, don't throw away the cuttings. Let segments of two or three leaves dry for one day, then dip the end in a rooting hormone powder, and plant them in a very loose and light potting soil. Keep them moist (not wet) in a humid environment, and they will root in a month or two. They will be blooming for you by November or December, just in time to gift them to friends. They make excellent "Friendship Plants" because they last up to 75 years!



Honey Bees and CCD

Sharlet Elms, El Dorado County Master Gardener



Last month we talked about the importance of honey bees to agriculture and why you should be concerned about their welfare. So what is the biggest current threat to honey bees? The answer to that question is more complex than you would think! Currently the world is abuzz (pun intended!) with the term CCD, but what does that exactly mean? Well truth be told, no one is really sure right now.

The acronym stands for Colony Collapse Disorder, which is a state in which the colony is found to have very low or no adult honey bees present in the hive, a live queen, no dead honey bees around the hive and immature bees (brood) are present. The main question is where are the adult bees? No one knows for sure and many avenues are being explored. There is a lot of debate at apiarists (bee experts) meetings.

So a little history first. These losses first began being noticed in October 2006 with commercial beekeepers reporting losses of 30 to 90% of their hives. This trend has continued each year since and from 2006 to 2011 the average

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Honey Bees and CCD (Continued from page 2)

loss is about 33% each year with about 1/3 of the losses attributed to CCD. This has begun creating shortages in available bees for pollination of commercial crops. This is not the first bee die offs to have been recorded; there were reported 'mysterious' bee die offs in the 1880's, in the 1920's and in the 1960's. There is no way now to know if the cause is the same as the die offs now occurring.

Research has been underway now for a number of years to try to find a cause or causes of CCD. The avenues being explored include pathogens (i.e. viruses, funguses, and bacteria); parasites; management stressors and environmental stressors. In addition, many people believe pesticides should also be considered whether singly or in combination with other factors, and in particular a class called neonicotinoids as a cause of CCD.

Pathogens affecting bees have always been a problem. Scientists are looking in particular at the gut fungi *Nosema* and the Israeli Acute Paralysis virus, as well as a number of newly discovered pathogens. So far research has not implicated any one organism but total overall pathogen load may be a problem or a particular combination of pathogens could be affecting hives. Research is ongoing in this area.

Parasites are a familiar problem to all bee keepers, especially the Varroa mite which has been found frequently in CCD affected hives. Research has not answered the question of whether the mite is directly involved in CCD or if the viruses the mite passes to the bees may be posing a problem.

Management stressors are another factor being explored. Bee colonies for commercial pollination have decreased from 5 million colonies in the 1940's to 2.5 million currently and the demand for their services increases each year. This results in apiaries being overcrowded with resulting poor nutrition and hives being forced to travel long distances and to multiple locations. It also results in bees being exposed to a lot of other bees from other parts of the country, or even the world, and all of their associated pathogens. Changing management practices may help alleviate some of these problems; whether they help with CCD remains to be seen.



Varroa mite on bee larva. Photo by Kathy Keatley Garvey

Environmental stressors includes things like pollen/nectar scarcity, lack of diversity in food supply (single crop pollination), low nutritional value pollen/nectar, and limited access to water or contaminated water. Some of these problems can also be addressed to see if reducing or eliminating these stressors has an effect on CCD.

Pesticide use with new classes of pesticides is believed by some scientists to be involved in the die offs. In particular the neonicotinoids are under consideration due to an incident in Germany in 2008 which caused the die off of hundreds of bee colonies near a farm which had been sprayed with a neonicotinoid. However after an investigation it was determined that many factors were at play and the neonicotinoid could not conclusively be blamed for the die off of the colonies. Research on pesticide use is still being investigated by scientists.

Many scientists believe there will be no one cause of CCD found but rather that it is the 'canary in the mine' syndrome that we may be seeing. A perfect storm of events that could be occurring and since the bees are very sensitive to changes in the environment, they are the harbinger. If you are interested in further reading about CCD and the research currently being done and the reports being issued please check out the resources listed below. There are many information links listed in each of the sites.

What can you do to help bees? Don't use pesticides indiscriminately, plant diverse gardens which produce flowers though out the year, have clean water available year round, encourage pollinators of all types, and most of all enjoy the bees; both honey bees and all the individual solitary bees in your yard. Next month I'll tell you the story of the lowly bumble bee, one of my very favorite 'solitary' bees.

Resources:

- United States Department of Agriculture, Agriculture Research Service www.ars.usda.gov/CCD , 'Colony Collapse Disorder Progress Report June 2012'.
- 'The Mystery of Bee Colony Collapse'; www.motherjones.com, July 31, 2013.
- www.epa.gov/pesticides/about/intheworks/honeybee.htm.

Frost Caps for Your Garden

Bonnie Toy, Amador County Master Gardener

Winter is definitely here, and that can mean pipes broken from the frost. Recently I disconnected all my hoses and rolled most of them up for storage. The standpipes are all wrapped in the foam pipe insulation that you can get from the hardware store, but it has always been a challenge to figure out how to protect the faucet itself - wrap it with rags and string? Insulating tape? A scrap of wall insulation?

I've tried a variety of these over the years, and while they all work okay, it is a nuisance to get them all wrapped safely, and it is a hassle to unwrap them again in the spring, only to have to repeat the process for the next frost season.



This year I made frost caps for my faucets. They tie on easily, and can be removed in the spring and stored for the next frost season. I made several different styles and sizes, as I have some hoses that must run all winter to keep the stock troughs full, and I have a couple of 2 headed faucets on a single stand pipe. But most are single faucets on a straight stand pipe.

You do need a sewing machine, but frost caps aren't hard to make. Here are instructions for the single faucet/single standpipe style. You can modify the dimensions for other configurations once you see how easy these things are to assemble. What you need for 1 frost cap:

- 2 pieces of water resistant fabric, 8"x16" (I used ripstop nylon.)
- 2 pieces of quilt batting or other insulating material, 8"x16"
- 1 piece of 1/4" cording, 26" long

Lay the fabric out and top each piece with a piece of insulating material.

Fold each of the pieces in half, so that the fabric is on the outside and the insulation is on the inside. You should now have 2 8" squares with one finished edge (the fold), and 3 unfinished edges. Stack the squares on top of each other, making sure the folded edges are together.

Pin at the 4 corners, doing your best to align the fabric pieces and insulation pieces so that all layers match at the corners. Fold the cording in half, and push the loop formed by folding it from the inside of the "sandwich" to the outside. The loop should slightly show outside a raw edge, and should be about 1" above the folded edge. The tails should be pulled down so they don't get caught in the seam.

Now, starting at the folded edge with the loop nearby, sew a few stitches and backstitch. Continue sewing until you have stitched over the loop. Backstitch again. Continue sewing until you get to the corner, turn the corner and sew across the top, turn the corner and then down the other side. Backstitch when you reach the end. Trim your seam allowances and turn the cap right side out.

That's it! Easy Peasy.



Feeling the Pressures

Yvonne Kochanowski, El Dorado County Master Gardener

Do your ears need to pop when you drive down into the valley or up into the mountains? If you've been at sea level for a few days and return to our mountains, do you feel headachy and out of sorts? Do you feel it in your bones when the weather seems to be changing? It's the pressures, my friends! Air pressure and its influence on our weather, to be exact.

Air pressure represents the weight of air above us in the atmosphere. It changes due to passing fronts, winds, elevation and other factors. Without air pressure changes, we wouldn't have weather changes. And yet few of us think about how air pressure impacts our daily lives.

Here in our northern California foothills area, we have two major pressure features that drive our weather.

Aleutian Low - This low pressure center produces winter storms over the north Pacific that hit the Pacific Northwest of the US and Canada before moving across the continent and creating havoc along their paths. It is called semi-permanent because, while it is not a single specific low pressure system, it is a breeding ground for this type of cyclonic activity. In the winter, it hangs over the Aleutian Islands off the coast of Alaska, bringing colder air down in a counter-clockwise circulation. As that air heats, it slows down and builds up those awesome winter storms. During the summer months in the Northern Hemisphere, it joins with the Icelandic Low to become a much larger low pressure mass that resides over the North Pole.

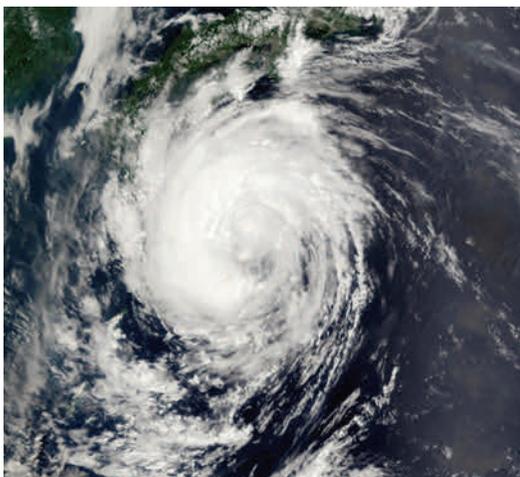
North Pacific High - Also called the Hawaiian High, this semi-permanent high is located in the north Pacific, northeast of Hawaii. It shifts further north in the summer and south in the winter with fluctuations in the Aleutian Low and conditions in the tropics. Its clockwise circulation pulls cooler and relatively drier air down from the northern latitudes, and along with the colder oceanic California Current which follows the same pattern, it keeps our summers cooler with lower humidity than found on the US West Coast.

If you're having a hard time thinking about these descriptions, envision this. A hand mixer, the kind our grandmothers used to make cakes, has two whisks that mesh and turn to beat ingredients. (Hey, I still have mine too!) When it's running, ingredients on the left (let's call this Japan) flow in and combine, shooting out to the right (Canada and the US). The Aleutian Low is the north beater or whisk, and the Pacific High is the south one.



Think of the combination of low and high as the beater. The beater as a whole moves north during the summer. This means that the Pacific High has a greater influence because it's located at our latitude, and that brings warmer, drier air through the beater's center to us. In the winter, the beater shifts south, so the wetter, colder Aleutian Low prevails.

In addition to these big air pressure drivers, small changes due to shifting fronts also make us 'feel' and see pressure differences. When air is being sucked into a low pressure system, it pushes the air in front of it out of the way, which means up. Up means a build-up of clouds, which usually means precipitation. High pressure pushing low pressure out of the way means generally clear skies with the downward force in the atmosphere.



The satellite photo on the left is of a low pressure system. You'll note the counterclockwise rotation. It's hard to find a picture of a high pressure system. Any guesses as to why? Yes, you're right - no clouds!

I bet you're still wondering about those questions I posed at the beginning of this article. Here are the answers!

Your ears pop because air pressure changes with vertical altitude. More weight presses down at lower elevations than higher ones. You feel this in your ears because there is a tube filled with air between your middle ear

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Feeling the Pressures *(Continued from page 5)*

and your throat. Your ears pop to balance the pressure in your body with outside air pressure, and rapid changes like driving up a mountain or descending in an elevator require faster adjustments.

If you've been at sea level for a few days, your body overall adjusts to the higher, denser surface pressure. (Think of the weight of that entire column of atmosphere over your head!) When you return to a mountainous location, the lighter pressure can produce that generally woozy feeling. Many people refer to this as altitude sickness. At the highest elevations, acute mountain sickness can occur with very serious physical effects, but many people are sensitive enough to feel an elevation change of half a mile - like the change from Sacramento to our higher foothills.

Finally, when someone tells you their old knee injury now means they can predict the weather, they're right! Healed injuries or conditions like arthritis can leave behind small air pockets in a joint. Small changes in surface air pressure can alter pressure on nerve endings near those pockets, causing discomfort or pain.

So the next time someone tells you they are feeling the pressures, ask them what kind of front is moving in - and then look for some clouds on the horizon!



Public Education Classes & Events for Amador and El Dorado Counties - Free!!



*Most classes are from 9 a.m. - Noon.
Please call ahead to confirm locations.*

Click on the class title to go to our public website and schedule an email reminder for the class.

Amador County

Unless otherwise noted, the location for all Amador County classes is the GSA Building, 12200-B Airport Road, Jackson. Questions? Call 209-223-6838.

Sneak Peak: 2014

January

11: [Mastering Foothill Gardening Basics](#)

February

15: [Grafting Fruit Trees](#)

22: [Pruning and Grafting Grapes](#)

March

1: [Planning Your Summer Vegetable Garden](#)

April

5: [Celebrating Flowers](#)

26: [1\) Shade Gardening with Ornamentals](#)
[2\) Conserving Water](#)

May

3: [1\) Attracting Beneficial Insects](#)
[2\) Bees and Pollinators](#)

[Download the full 2014 schedule.](#)

El Dorado County

Unless otherwise noted, the location for all El Dorado County classes is the Veterans Memorial Building, 130 Placerville Drive, Placerville. Questions? Call 503-621-5512.

Sneak Peak: 2014

January

4: [Planting Bare Root Fruit Trees](#)

11: [Greenhouse Gardening and Seed Propagation](#)

18: [Rose Pruning](#)

25: [Pruning Fruit Trees](#)

February

1: [Succulents](#)

8: [Beekeeping](#)

15: [Spring & Summer Veggies](#)

22: [Worms and Worm Bins](#)

[Download the schedule for the first six months of 2014.](#)

Check out the [El Dorado County Master Gardener Facebook page](#).





Winter Master Food Preservers Classes



Amador/Calaveras County

10:00 a.m. - Noon

• **Saturday, January 11: Core Canning Techniques**

Location: Calaveras County Senior Center, 956 Mountain Ranch Road, San Andreas

New to canning, either pressure canning or boiling water canning? This class demonstrates the fundamental steps of both boiling water bath canning and pressure canning. Our demonstrations will include hearty home made soups and sauces.

• **Saturday, February 8: Preserving Fish and Game**

Location: Amador County GSA Bldg., 12200-B Airport Road, Jackson

Are you a hunter or fisherman? Or is there one in your house who brings home fresh game and fish that needs to be preserved? Come to this class and learn a variety of techniques for preserving your fish and game including marinating, smoking, pressure canning and freezing.

Both classes are free and no reservations are required. Call 209-223-6857 for more information.

El Dorado County

MFP public classes will resume at the end of June. Master Food Preservers are available to answer home food preservation questions; leave a message at (530) 621-5506 or email edmpf@ucdavis.edu. Sign up to receive our Master Food Preservers E-Newsletter at <http://ucanr.org/mfpnews/>. Find us on Facebook, too!

<p>Pest Notes</p> <p>Free Pest Notes are available on a variety of topics. For more information, call or email your local UCCE Master Gardener office.</p> <p>To explore the Pest Notes on the UC Integrated Pest Management (IPM) website, go to http://www.ipm.ucdavis.edu.</p>		<p>Get Answers to Your Gardening Questions Online</p> <p>http://cecentralsierra.ucanr.edu/Master_Gardeners</p> <ul style="list-style-type: none"> • Information about Master Gardeners and how to become one • List of public classes • Calendar of Master Gardener events • Useful links to gardening websites • Home gardening publications <p>Got a specific question? Just email us! Amador: mgamador@ucdavis.edu El Dorado: mgeldorado@ucdavis.edu</p>
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