CHRISTMAS CACTUS THRIVES FOR MORE THAN 80 YEARS

On a trip to Colorado this past May, I visited my great aunt in Fountain, a town near Colorado Springs. This great aunt is my grandpa’s sister and her name is Ardith Bruce. She is also known as the 1964 Pro Rodeo World Champion Barrel Racer. She was born near Clay Center, Kansas in the dust bowl era of the 1930s. Because the dust was so bad in Kansas at that time, her family moved to the Missouri Ozarks, near Mountain Grove, to the farm my parents now reside on. Her mother and father (my great grandparents) were quite the gardeners. They had a large, beautiful iris bed that I remember seeing as a child. They had irises of all colors. They grew a vegetable garden and preserved most of what they grew for later use. My great grandmother had a Christmas cactus that survived the dust bowl and traveled with them to Missouri where it thrived for years as a potted plant. My great Aunt Ardith was given the plant in 1979 and took it with her to her home in Fountain. When I was there in May, Ardith gave me cuttings from this original plant. The plant is very large and beautiful. I brought the cuttings home to form my own potted plant which is now blooming. The blossoms are a pretty red and a reminder of the history of this plant.

Culture - Holiday cacti grow best in light shade. Full sunlight is beneficial during fall and winter, but bright sun during the summer months can make plants look pale and yellow. Ideal spring and summer growth occurs at temperatures between 70 to 80 °F during its growing season from April to September. During the fall, the Thanksgiving and Christmas cacti depend upon shorter day lengths (8 to 10 hours) and cooler temperatures to set their flower buds. Do not let temperatures rise above 90 °F once the flower buds are set in the fall. Continuous warm temperatures can cause flower buds to drop. Do not leave these cacti outside if temperatures will drop below 50 °F. The secret of good flower bud production during the fall involves temperature regulation and photoperiod (length of day and night) control. To initiate flower buds the plants need:

- Bright light
- Long nights. Fourteen hours or more of continuous darkness each day is required before flower bud set will occur. Long nights should be started

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about the middle of September and continued for at least 6 continuous weeks for complete bud set. Note that as little as 2 hours of interrupted lighting will inhibit flower bud set. Buds normally will be visible in 3 to 4 weeks. The photoperiod has no effect on flowering once the buds are set.

- Fall growing temperatures should be kept between 60 and 68 °F, but as close to 68 °F as possible for maximum flower production. Plants grown with night temperatures between 50 and 59 °F will set flower buds regardless of day length, but growth will be slower and bud drop may occur at 50 °F.
- Pinching back the stems in early June to promote branching and more terminals for more flowers.
- Pinching (also called leveling) at the end of September to remove any terminal phylloclades that are less than 1 cm (0.4 inch) long and make all stems approximately the same length. These short and immature stem segments will not initiate flower buds until mature. After a short phylloclade is removed, a flower bud forms on the previous, more mature stem segment.

Water the growing medium when it is dry to the touch. The holiday cacti are tolerant of dry, slightly underwatered conditions during the spring and summer. Do not let the soil become waterlogged, especially during the dark days of winter, but do not let the soil completely dry out either. However, following bud set in the fall, the growing medium must be kept evenly moist to prevent flower bud abscission. Never let water stand in the saucer beneath the pot. Fertilize plants monthly from the time new growth starts in late winter or early spring, and throughout the summer using a soluble fertilizer, such as a 20-10-20 or 20-20-20 with trace elements. Holiday cacti have a higher requirement for magnesium than many plants. Fertilize monthly during the growing season with Epsom salts (magnesium sulfate) mixed at 1 teaspoon per gallon of water, but do not apply the same week as the regular fertilizer. Stop fertilization during the late summer for greater flower bud production in the fall.

The Thanksgiving and Christmas cacti commonly drop unopened flower buds, which may be induced by an excessive number of buds or a sudden change in temperature, light or other environmental factors, such as drying out of the growing medium. Lack of flowering is often due to light interrupting the long night period (14 hours) required for flowering initiation to occur. Street lights, car lights or indoor lighting can disrupt the required dark period.

Source: the culture information was taken from Clemson Cooperative Extension. [http://www.clemson.edu/extension/hgic/plants/indoor/flowering/hgic1554.html](http://www.clemson.edu/extension/hgic/plants/indoor/flowering/hgic1554.html)
Winter came early to Missouri this year, and may have caught some of us off guard. We had a dusting of snow in Kirksville on November 11 followed by two weeks of cold, below normal temperatures. While we usually wait until Thanksgiving time to wrap trees and mulch strawberry plants, this year these garden tasks had to be done earlier. Strawberry plants should have been mulched with loose straw at a depth of about 4 inches to protect the crowns over the winter. It is recommended to wait until temperatures have reached 20 degrees three days in a row before mulching. Since we have already had nighttime temperatures in the teens, you must mulch strawberry plants now if you have not already done so. Leave straw mulch on until spring, typically the last week of March or first part of April.

Another important task that should be done now is wrapping young, light-colored, thin-barked trees like maples, crabapples and fruit trees. Every year I get many questions about trees with peeling bark and splits down the middle. This injury is known as sunscald or Southwest injury and it affects many young trees every year. The living cells just inside the outer bark, which is mostly phloem and cambium tissue, are damaged by fluctuations in day to night temperatures during the winter months. Phloem is a vascular tissue that carries food throughout the tree. The cambium is located just inside the phloem and outside the wood or xylem tissue and is a thin layer of cells that divides to form new phloem to the outside and new xylem to the inside.

The side of the trunk and branches facing south and southwest get the most direct sun. They also get sun later in the day when air temperatures are warmest. Injury occurs when the exposed bark on the tree warms up on sunny days and previously dormant cells within the plant become active in response to the warmth. The newly activated cells lose some of their cold-hardiness and are injured when temperatures drop below freezing during the nighttime hours. Damage includes discoloration, splits in the trunk and cracking and peeling of the bark.

Protecting young trees from Southwest injury is easy and inexpensive. Wrap young, thin-barked trees with a light colored tree wrap found at most garden centers and farm supply stores. This wrap typically costs $3-4. Wrap the tree from the bottom up to the lowest branch, overlapping the wrap. Tape it off at both ends so it will remain in place. Dormant cells within the tree will then remain inactive and will be at less risk of being injured if the temperature drops below freezing at night or when temperatures suddenly drop as a cold front moves in. Remove the wrap in the spring after the danger of freezing temperatures is past. Wrap the tree each year in late fall for the first 3-4 years after planting.

An injured tree may have significant stress. The injury presents an avenue for pests and diseases to enter the damaged area. Damage may eventually heal, but do not paint or fill the damaged areas with any sealing substance such as paint or tar. Many times the trees do not heal and eventually die. Drought-stressed trees are more susceptible to Southwest injury, so make sure your trees are fully hydrated in the fall before the ground freezes. Landscape design with Southwest injury in mind, can also help to avoid it. Susceptible trees should be planted on the north and east sides of homes or buildings or near evergreens so their lower portions will be shaded in winter.

Other garden tasks that should be done now include protecting rose bushes by mounding soil and mulch up about 12 inches around the base of the bush; cleaning, oiling and storing away garden tools; and putting away containers and garden ornaments to prevent cracking. For more information, contact your county extension center.
GARDENING TIPS FOR DECEMBER

HOUSEPLANTS
- On cold nights, move houseplants back from icy windows to prevent chilling injury.
- Over-wintering geraniums like bright light and cool temperatures. Keep soils on the dry side.
- Be sure newly purchased indoor plants are well protected for the trip home. Exposure to icy temperatures for even a few moments may cause injury.
- Water houseplants with tepid water. Cold tap water may shock plants.
- Holiday Poinsettia basics: - sun for at least half the day. - keep away from drafts, registers and radiators. - night temperatures in 50’s or low 60’s, days at 70 degrees. - the soil should dry only slightly between thorough waterings. Discard the drainage. - be sure to punch holes in decorative foil wraps to prevent soggy soil conditions.

ORNAMENTALS
- Be sure the root zones of azaleas and rhododendrons are thoroughly mulched. Any organic material will do, but mulches made from oak leaves, shredded oak bark, or pine needles are preferred.
- Living Christmas tree basics: - dig the planting hole before the ground freezes. - mulch and cover the backfill soil and the planting hole to keep them dry and unfrozen. - don't allow the tree's roots to become dry. - spray with an anti-transpirant to reduce needle moisture loss. - store the tree outdoors in a cool, shady, windless area until the last minute. Mulch the roots to prevent cold injury. - set the tree up in your coolest room. - don't keep the tree indoors for more than one week. Plant outdoors promptly.
- Hairspray works well to keep seed heads and dried flowers intact on wreaths and arrangements.
- Hollies may be trimmed now and the prunings used in holiday decorations.
- Only female holly trees bear the colorful berries. There must be a male tree growing nearby for pollination, if fruits are desired.
- Christmas trees hold needles longer if you make a clean, fresh cut at the base and always keep the trunk standing in water.

MISCELLANEOUS
- If you feed rabbits corn or alfalfa, they may leave fruit tree bark unharmed.
- Clean and oil all garden hand tools before storing for winter.
- All power equipment should be winterized before storage. Change the oil and lubricate moving parts. Either drain fuel systems or mix a gas stabilizing additive into the tank.
- Apply mulches to bulbs, perennials and other small plants once the ground freezes.

UPCOMING EVENTS
December 5-6: Missouri Livestock Symposium, William Matthew Middle School, Kirksville. I will have a flower arranging class on Saturday at 3. Bring hand pruners. Beekeeping, poultry and food safety sessions also. www.missourilivestock.com
January 6: Salt River Master Gardener Meeting, 7:00 p.m. Sesquicentennial Building, Palmyra MO. Call Sue for details at 573-795-2334
March 21: Beginning Gardener workshop, 9-1, Jacob's Vineyard and Winery, Kirksville, MO. For those wanting to learn the basics of growing and preserving their own food. No cost to attend, please RSVP to 660-665-9866.
Spring 2015: Spring Forward Into Gardening-changes are coming to this workshop. We have offered this around the region for about 10 or more years, and new topics, (possibly some around the home topics) and speakers will be incorporated into the 2015 workshop.
Summer 2015: Advanced beekeeping workshop.
August 20, 2015: Master Gardener training in Kirksville; Thursdays, 1:30-4:30 pm. Master Gardener training is also offered online each semester. If you are not able to take MG training face-to-face or live in a county too far from the training site, consider taking the online training and doing it at your own pace. The next class will start in January. Sign up on the state Master Gardener homepage at http://mg.missouri.edu/.