

CHRISTMAS PLANTS BRIGHTEN THE HOLIDAY SEASON

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The colorful plants that you have enjoyed during the Christmas holidays can be a reminder of the holiday season for many months. Correct care of these plants will make them a welcome addition to your collection of houseplants.

Christmas plants, such as poinsettia, holiday cactus, Christmas pepper, kalanchoe, Jerusalem cherry or cyclamen, require a bright, sunny location in the home. Regular thorough watering whenever the soil is dry is also very important. A sunny location and regular watering are enough for these plants during December but more specialized care is necessary if you plan to have them flower again next Christmas.

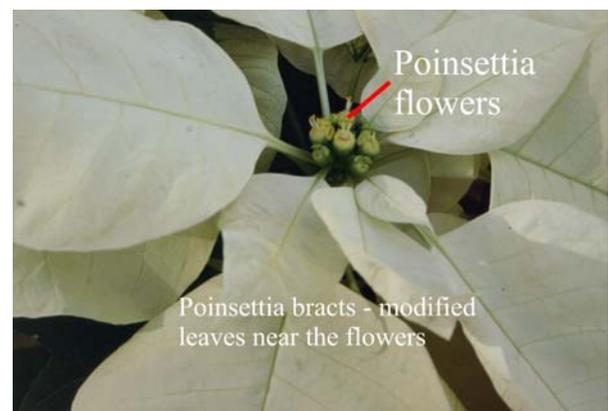
In January, you need to decide if you want to keep your Christmas plants or discard them. Christmas pepper, Jerusalem cherry and chrysanthemum should be discarded because they will not flower again. Do not discard poinsettia, holiday cactus, kalanchoe, or cyclamen until February. They will remain colorful if they are cared for properly. These plants can be kept as houseplants after February if you give them the conditions they require. Poinsettias and holiday cacti are relatively easy to grow while kalanchoes and cyclamen are more difficult. The major result of yearlong care of a Christmas plant is the large specimen plant you will have the following Christmas. It is easy to produce a poinsettia with 40 to 50 flowers from the same plant that had only six to eight flowers the year before. Holiday cacti will be two to five times as large next year with many flowers.

Cultural practices used to grow these Christmas plants are described below. Consistent care throughout the summer and fall is the key to growing a specimen plant for next Christmas.

POINSETTIA

The poinsettia was named for Joel Robert Poinsett, an amateur botanist and the first American ambassador to Mexico. He became fascinated with the plant and sent poinsettias home to Greenville, South Carolina in 1825. Poinsett went on to become war secretary under President Martin Van Buren. Today, however, he is best known for the plant named after him.

Production practices for potted poinsettias were first developed in the 1950s. Today, according



to the United States Department of Agriculture, poinsettias, *Euphorbia pulcherrima*, family Euphorbiaceae, are the number one potted flowering plant grown in the United States. In 2002, an estimated 55,000,000 poinsettia plants were sold in the U.S., while Kentucky growers produced over 500,000 in the same year.

The standard three to six bloom, red poinsettia is the most commonly sold, but there are over 125 varieties available in 2003. Plants can be grown in a number of sizes from one flower per 2-inch pot to 75 or more flowers in a 24-inch pot. Colors range from creamy white to yellow through shades of pink, salmon and burgundy to different shades of the traditional red. Some poinsettias can be found with marbled bracts of pink and white as well as those with pink flecks on red or red flecks on pink. Varieties may have bright green, dark green or variegated foliage. Poinsettias can be purchased in miniature sizes, trees and hanging baskets. The range of varieties can be seen at the websites of two of the largest U.S. suppliers:

- Paul Ecke Poinsettias -- <http://www.ecke.com/>
- Fischer Poinsettias -- <http://www.fischerusa.com/>

Care and Handling Tips

Poinsettias can remain beautiful far beyond the holiday season if the plant is cared for carefully. Some tips to keep in mind: Choose a plant with small, tightly clustered yellow buds in the center. Look for crisp, bright, undamaged foliage. At home, water the plant when dry; discard excess water in the saucer. Place in a room with bright, natural light. Ideally, direct sunlight should fall on the foliage for three or more hours each day. Keep out of drafts and away from appliances and radiators; do not put the plant on the television set. After a few weeks, fertilize with ordinary houseplant fertilizer.

Non-Edible Plants: A Common Sense Approach

Although the poinsettia is not poisonous to people or pets, it is classified as non-edible. Like all non-edible plant materials, the plant can cause, in sensitive individuals, some discomfort if ingested. Milk or ice cream usually helps. Some cats are curious and can choke on the fibrous texture of the leaves. Homes with active and curious children and pets should place all non-edible materials out of reach. Concerns about poinsettia safety still appear from time to time. Even though the incident that originally alarmed the public took place over eighty years ago, tests have shown that poinsettia is not poisonous. Poinsettias were thought to be poisonous in 1919 when a child died in Hawaii after reportedly ingesting a leaf from the plant. The report was never confirmed yet the rumor may surface each year around Christmas. To determine the toxicity of poinsettia, research was conducted at Ohio State University in the early 1970s and at Duquesne University, Pittsburgh. Tests showed no toxicity, no changes in behavior and no mortality even at extremely high dosages. Additional support for the non-toxic nature of the plant: The American Medical Association confirms no deaths or significant injury in their reference book "AMA Handbook of Poisonous and Injurious Plants." The POISINDEX Information Service, the primary resource used by the majority of poison control centers, states a 50-pound child would have to ingest one and a quarter pounds (500 to 600 bracts, or leaves) to exceed experimental doses that showed no toxicity. The Consumer Product Safety Commission denied a petition to label the plants as poisonous because there was no evidence to support the claim. Most recent texts and reference books contain correct information about poinsettias, although occasionally newspapers and magazines quote outdated information. Consumers should know the poinsettia is the most widely tested consumer plant.

Make Your Plant Bloom Again

You can make that festive holiday spirit last all year. Coaxing your poinsettia to bloom again is a fun project when you tie it in with holidays during the calendar year.

- Christmas: Select plants with tightly clustered, yellow buds. Protect from hot or cold drafts, water when dry, and place in a room with bright natural light.
- New Years Day: Use an all-purpose houseplant fertilizer. Keep the plant in a sunny window, water regularly, fertilize monthly. Plant will remain colorful for many weeks.
- St. Patrick's Day (March 17): Remove faded flowers and bracts and dried leaves from the plant. Add more soil, preferably a commercially available sterile mix. For a smaller plant - prune stems about three to six inches to remove colored bracts. Fertilize with complete houseplant fertilizer.
- Mothers' Day: Plant should be approaching three feet in height. Trim off two to six inches of the branches to promote side branching. Repot to a larger container (two to three sizes larger). Move plant outside; first to indirect, then direct sunlight (a location that receives full sun each day for at least six hours).
- June-July: Fertilize the plant every two weeks; water regularly.
 - Fourth of July: Trim plant again. Make sure it is in full sunlight. Slightly increase amount of fertilizer.
- August-October: Fertilize every week. Water frequently, once or twice a day.
- Labor Day (early September): Plant may have grown to three to five feet. It can be pruned to a height of 18-24 inches. Move indoors but make sure it has six hours of direct sunlight from a curtain-free window. Continue regular water and fertilizer.
- First Day of Autumn (September 21): Selectively remove the smallest new branches so only 10 to 25 stems remain to produce flowers.
 - September 21 to October 1, give the plant 14 hours of uninterrupted darkness and 10 hours of bright sunlight each day. For example, each day place the plant in a light-free closet or under a box at 6 p.m. each evening and return it to the sunny window at 8 a.m. the next morning. Or simply place the plant in a little used south facing room and be sure not to turn the lights on in the room from 6 p.m. to 8 a.m. each day. Continue to water and fertilize. Rotate the plant each day to give all sides even light.
- Halloween (October 31): Stop day/night light/dark treatment. Keep plant in a sunny area. Reduce fertilizer applications. The plant can remain in its usual full sun location as the upper leaves (bracts) turn red, pink or white.
- November-December: Fertilize every three weeks. Water regularly.
- Christmas: Enjoy your beautiful "new" poinsettia.



HOLIDAY CACTUS

In shades of white, golden yellow, pink, rose, coral and red, the flowers of holiday cacti look like exotic birds in flight. It is no wonder that these fall and winter blooming plants have become holiday favorites.

People group holiday cacti together under the term "Christmas cactus."

Actually, most holiday cacti are derived from the Thanksgiving or crab cactus, *Schlumbergera truncata*, family Cactaceae. The true Christmas cactus is

Schlumbergera bridgesii. The main difference between the two is the shape of the leaf like stem segments. In the Thanksgiving cactus, the edges of the segments are toothed or pointed; in the Christmas cactus, the segments are smaller and have rounded lobes. The Thanksgiving cactus tends to grow more upright, while the Christmas cactus tends to be more pendulous, or drooping.



Both species originated in Brazil, where they grow as epiphytes in plant debris trapped among tree branches or in decaying humus on the ground. Therefore, plants grown in the home do best in a light, 'humusy' or peat-based potting soil and containers with holes for drainage. Avoid potting in heavy mineral-type soils (garden soil), where over watering will quickly lead to root rot and plant death. The once recommended practice of keeping holiday cacti quite dry in the fall to stimulate flowering probably grew out of greenhouse growers' attempts to prevent fungal diseases in plants grown in heavy soils under cool, moist conditions.

Though holiday cacti naturally flower around Thanksgiving and Christmas, commercial growers take no chances -- they manipulate light levels and temperatures to guarantee timely flowering. Holiday cacti bloom in response to short days and/or cool temperatures. In the greenhouse or in the home, expose them to nine hours of light and 15 hours of darkness each day, starting in September, to cause plants to set flower buds. Holding temperatures between 50 and 59° F. will stimulate flowering despite day length. Kentucky gardeners that reflower their holiday cactus each year, simply leave the plants outdoors through September and protect the plants from frost if necessary. When the plants are brought indoors in early October, flower buds are set and the plants flower around Thanksgiving.

Temperature above 75° F., sudden changes in temperature or light levels, and over watering plants in heavy soil will cause unopened flower buds to fall off. Besides controlling the growing environment, greenhouse operators use chemical growth regulators to increase stem branching and flower bud formation. That is why the plants you see in florist shops and greenhouses have many short lateral branches loaded with flower buds. One to two flowers at the end of each stem are normal, but treated plants may have three to five.

To Rebloom Holiday Cactus

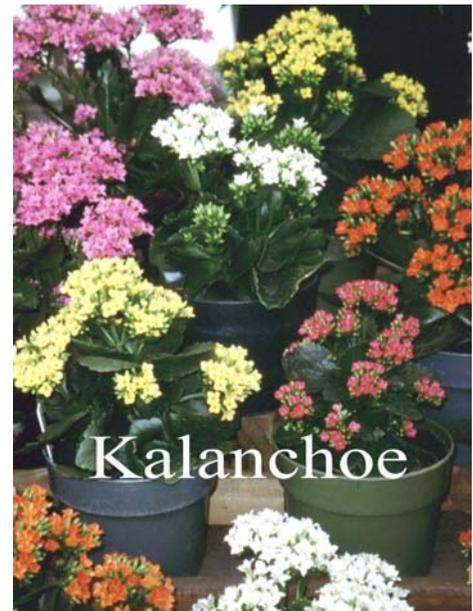
The following schedule is appropriate for all holiday cacti, the true Christmas cactus and the Thanksgiving or cactus.

- January-May: Give plants a sunny location indoors. Water the plants two to four days after the soil appears dry. This plant prefers to be drier than most houseplants but not as dry as other cacti and succulents. Fertilize each month with a complete houseplant fertilizer.
- June 1: Bring plants outdoors to a location that receives about six hours of sunlight each day. Repot into 8" or 10" pot or basket and use very light, well-drained growing media.
- June-August: Continue watering and fertilizing your plants as in the spring. Summer rainfall may give the plants all the water necessary for good growth.
- September 1: Begin dry period, reduce the frequency of watering by one-half to reduce disease problems. Fertilize only every six weeks.
- September-October: Plants should remain outdoors until October 15 to allow flower promotion during the cool weather. Protect plants from frost on the coldest nights. Thanksgiving cacti flower consistently after the dry, cool temperature treatment or sporadically without treatment. Plants flower for three to four weeks beginning in mid-November. If Christmas cacti do not remain outdoors until October 15, treat plants with the uninterrupted night (short day) treatment described for poinsettias. Late, inconsistent flowering with fewer flowers will be apparent at Christmas without the flower promotion treatments.
- November 15-December 15: Enjoy a beautiful holiday cactus!

KALANCHOE

Kalanchoe blossfeldiana (family Crassulaceae) is a plant native to Madagascar with other related species originating from arid regions of tropical Africa. It has been described as an "idiot proof" plant for the homeowner because it withstands periods of drought and tolerates low light. Kalanchoe is a succulent plant. It can be successfully reflowered in the home following the directions below.

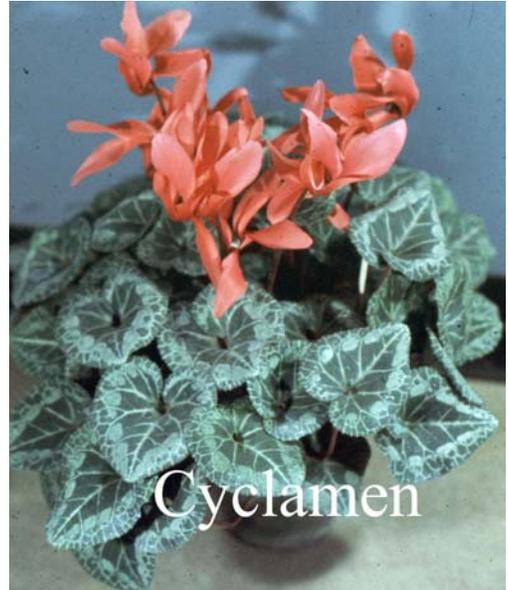
- January-March: Plants must be grown in a sunny location. Fertilize with complete houseplant fertilizer once per month.
- April 1: Prune one to three inches off remaining flower stems. Pruning is necessary to stimulate new vegetative growth. Some cultivars are very slow to start vegetative growth and may continue to produce flowers even during long days.
- April-September: Plants must be grown in a full sun location or outdoors. Fertilize with a complete houseplant fertilizer every three weeks. Kalanchoes are succulent plants so be careful not to over-water them; water two to four days after the soil appears dry.
- September 15: Begin the flower promotion treatment. Plants must receive absolutely NO light from 6 p.m. in the evening until 8 a.m. the next morning. If you move the plant to a dark location at 6 p.m. each evening, you must return the plant to its full sun location each day.
- September-December: Plants must be in a sunny location. Be sure not to over-water the plants and fertilize every three weeks with a complete houseplant fertilizer.
- November 1: Stop the flower promotion (short-day) treatment. You may leave the plants in their full sun location as flower buds develop.
- December 10: Enjoy a beautiful kalanchoe!



CYCLAMEN

Cyclamen persicum, the original species, is native to Palestine, Asia Minor and islands of the Aegean and eastern Mediterranean seas. Earliest mention of the species was probably in fifteenth century transcripts. It was introduced into Western Europe as a collector's item in the early seventeenth century.

Well-grown specimens of modern-day cultivars have excellent keeping qualities if cared for properly. They should be kept in a bright, cool location, and watered properly. Watering should be done in the morning to reduce the risk of disease. The plants should not be allowed to dry out. Cyclamen plants need good air circulation to minimize diseases. The plants should remain attractive for a minimum of six weeks in the home. Cyclamen can flower from Thanksgiving to Mothers' Day if kept in a cool (55° to 60° F), sunny location. Plants in very small pots may not last quite as long unless given close attention.



- January-March: Cyclamen plants will continue to produce flowers if kept in a bright sunny window and at temperatures of 55° to 65°F. If you do not have a suitably cool area, it may be best to discard the plant rather than grow it for next year. Water the plants regularly and thoroughly but be sure not to over-water. Fertilize with a complete houseplant fertilizer once per month.
- April-June: As temperatures increase outdoors, the cyclamen will cease flowering and eventually all the foliage will yellow and die. Reduce watering accordingly as the plant slowly dries and goes dormant.
- July-August: Store the potted dormant cyclamen corm (swollen bulb-like stem) in a location that doesn't get hot and dry. Water the dormant corm two to three times during the period so it does not dry out totally.
- September: Bring the dormant potted cyclamen to a full sun location as the night temperatures get cooler. Water the plant, with small amounts initially, to cause leaves to develop.
- October-December: Keep your cyclamen in a full sun location where night temperatures are 55°F to 65°F. Water the plants regularly and thoroughly but be sure not to over-water. Fertilize with a complete houseplant fertilizer every two weeks.
- December 15: Enjoy a beautiful cyclamen until spring!

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