

POTTED CHRISTMAS CACTUS



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OBJECTIVE(S):

1. Educational Components

Each participant will be presented with a definition of cactus. Each will be given information specifically about the Christmas cactus and basic information regarding the growth and maintenance of a cactus.

2. Activity

Each participant will transplant a Christmas cactus into a container.

3. Take Away

Each participant will take a transplanted Christmas cactus in a container back with them to their room.

MATERIALS:

(Plan for 8-10 patients. Eight is supposed to be the maximum, but sometimes we get 10.)

_____ Pens

_____ Markers

_____ Dishpans for dirt (available in BRI supply cabinet)

_____ Watering cans (2 available in BRI supply cabinet) or individual water bottles for patients to use

_____ Name tags for patients (check BRI supply cabinet)

_____ Example of completed project you're doing

_____ An extra set of the patient project materials listed below in order for you to demonstrate the project

POTTED CHRISTMAS CACTUS

MATERIALS: *(Continued)*

_____TWO completed presentation forms (1 to BRI and 1 mailed to Ext. office)

_____ Your clean receipts for materials purchased (give to BRI therapists)

SPECIFIC ITEMS NEEDED for this project

- Christmas cactus plants
- Containers
- Plastic drain trays for pots, if needed
- Sandy soil- potting soil, sand, peat moss, compost, or perlite.
- Water
- Optional, decorations for the pot

IS A POWERPOINT OR PREZI OF PRESENTATION AVAILABLE? NO

HANDOUT: *“How to Care for a Christmas Cactus”*

BEFORE CLASS:

- Drill holes in the bottom of the containers, if needed.
- The best time to propagate the Christmas cactus is after it finishes blooming--between February and April.
- If you can't pot it up right away, store it in a cool, dry, dark place.

DURING CLASS:

1. Christmas cacti prefer to be 'root-bound' in sandy soil. Fill the container with 2 inches of soil (Use a combination of 3 parts potting soil to one part sand for the potting medium. An alternative is one part potting soil, two parts peat moss or compost, and one part sharp sand or perlite).
2. Place the cutting/plant in the pot, filling around it with soil and packing it slightly.
3. Water and place in a bright, well-ventilated room. (As a general rule, they do not like blasts of hot air.)
4. Provide some humidity to the environment. Don't worry if some of the buds drop off – it's natural for the plant to lose a few.
5. Keep the temperature above 70 degrees in the daytime, from 55-65 degrees at night.

MAINTENANCE:

Water only when the soil feels dry to the touch, be sure that excess water drains away from the roots. Don't let the plant sit in a saucer of water. Misting weekly may help prolong its life as they like high humidity (Arkansas!). Fertilize every other week during summer with water-

MAINTENANCE: *(Continued)*

soluble fertilizer at one-third of the recommended strength. In fall, move to a cool (60-65 degrees) room where plants get at least 12 hours of darkness every night until buds form.

A common concern is when the holiday cactus no longer blooms. Getting them into flower requires a little understanding of what makes them tick. Holiday cacti are short-day plants, meaning they bloom when nights are at least 14 hours long and daylight periods are between 8-10 hours for 6 weeks. Streetlights or indoor lighting may disrupt the required dark period so they may need to be covered each night. Holiday cacti will also flower if exposed to prolonged cool temperatures between 50-55 degrees F. No flowers will form at night temperatures above 68 degrees F regardless of light length. The Christmas cactus should never be placed near a door that opens and closes to the outside. Likewise, keep it away from heating ducts or near the fireplace or drafty areas.

Yearly plant care schedule for a Christmas cactus:

- Spring – fertilize after flowering
- Summer – move outdoors to shady area. Maintain water and fertilizer
- Fall – move indoors before frost. Maintain drier soil. Start the budding regimen in September.
- Winter – put it in a location where it will get 4 – 6 hours of indirect sunlight. Keep soil moist. Do not let the air get too dry (not a problem in Arkansas!)

INFORMATION/DESCRIPTION/FACTS:

The Christmas cactus has large showy blooms on blunt toothed, flat stems: there are no spines. Contrary to the typical beliefs regarding cactus and their leaves, this one does best in a bright but cool room, well away from heating vents and blasts of warm air.

The majority of cacti are found in desert areas, although some have developed ways to live in a rainforest - growing on tree branches where, despite the high rainfall, water drains off quickly so that 'dry' conditions prevail much of the time. Cacti are well-adapted to life with little precipitation. The leaves have evolved into spines, which in addition to allowing less water to evaporate than regular leaves, defend the cactus against water-seeking animals. Photosynthesis is carried out by enlarged stems, which also store water. The stem is the only part of a true cactus where this takes place.

The Christmas cactus is a succulent perennial which is native to South American tropics like Brazil. Like many tropical cacti, this holiday favorite is an epiphyte, which means it lives on other plants. Unlike a parasitic plant that obtains nutrients from its host, epiphytes just use their host as substrate, a place to live. The genus (*Schlumbergera*), in which the Christmas cactus belongs, is one of the most widely cultivated and enjoyed groups of cacti in the world. They have been extensively hybridized by artificial means to produce a wide range of different colored

INFORMATION/DESCRIPTION/FACTS (*Continued*)

flowers including magenta, red, purple, white, pink, salmon, and orange. The showy flowers produced by these cacti are pollinated in nature by birds.

An interesting note is that there are several types of Holiday Cacti: Easter, Thanksgiving, and Christmas. They bloom closest to the holiday of their name. Christmas cacti have flattened leaves with rounded teeth on the margins as opposed to the Thanksgiving cactus that has pointed teeth. Easter cacti have pointed teeth with fibrous hairs in the leaf joints.

To confuse matters further, most of the Christmas cactus sold are actually Thanksgiving cactus. If you find your Christmas cactus blooming near Thanksgiving, guess what?

History

The Christmas cactus, also known as the orchid cactus, was discovered by an Englishman named Allan Cunningham sometime between 1814 and 1816 but it was named for Frederic Schlumberger, a French collector of cacti and succulents. It is called Christmas cactus because the traditional Christmas tree isn't always available in warmer climates, so as people colonized Africa, Australia, etc., they developed their own version of Christmas decorations – a larger cousin of this version.

Light exposure

Various plant species require cues from the environment to regulate the timing of certain events, like flowering. This mechanism, called photoperiodism, occurs when plants initiate flowering or other activities in response to relative lengths of daylight and darkness. In winter, the days get shorter and the nights get longer. This is very important to some plant species, like the Christmas cactus, poinsettia, and some Chrysanthemum to stimulate them to start flowering. In these species, it is actually the longer period of darkness, not the brevity of light, that seems to be important in helping them to recognize their appropriate flowering times. Commercial growers have been able to manipulate flower times by artificially altering light regimes in greenhouse settings in order to induce plants to flower at a particular time of the year, e.g. Poinsettias in bloom during the holidays.

SOURCES

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Mason, S. (2016). Caring for Christmas Cactus. *University of Illinois Extension*. Retrieved April 20, 2018, from <http://web.extension.illinois.edu/cfiv/homeowners/111122.html>

SOURCES, *(Continued)*

The Old Farmer's Almanac. (n.d.). How to care for a Christmas cactus. Retrieved April 20, 2018, from <https://www.almanac.com/plant/christmas-cactus>

WikiHow to do anything. (n.d.). Who to care for a Christmas cactus. Retrieved April 20, 2018, from <https://www.wikihow.com/Care-for-a-Christmas-Cactus>

Handout: How to Care for a Christmas cactus

Part1

1. Give your Christmas cactus bright but indirect light.

Keep the plant in a well-lit location (like near a window) away from direct sunlight - too much heat and light can stunt growth and burn the leaves. It should also be away from drafts, heat vents, fireplaces or other sources of hot air.



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- Move an indoors plant outdoors in summer to a shady location. It is best to keep in a normal house temperature range, about 65 to 75°F (18 to 20°C). That being said, cooler night temperatures can be used to initiate blooming.
- If it's in a north or east-facing window, you won't have to worry about light. But if it's in a south or west-facing window, diffuse the light with semi-transparent curtains or some other light-diffusing device.

2. Provide the plant a source of humidity if you live in a dry environment.

Put a tray of water next to the plant so that the water evaporates and provides humidity. Alternatively, you can make a humidity tray by placing the pot on a waterproof saucer that is filled with gravel and halfway filled with water.



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- 50 to 60% humidity is the ultimate goal. If your environment is close to that, you should be fine.

3. Use a well-draining container and well-draining soil.

For the container, some of the cheap nursery planters will work well, and orchid planters (the plastic basket kind) work well also. Pair this planter with a planter that will hold water and allow the basket to fit down into it. Then, place a few medium sized rocks into the bottom so that the basket container will be held about an inch above the bottom.



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- Use a combination of 3 parts potting soil to one part sand for the potting medium. An alternative is one part potting soil, two parts peat moss or compost, and one part sharp sand or perlite. Whichever way you go, pour about two inches of room temperature water into the outer container and set the basket container inside. After about twelve hours, pour out any remaining water. Repeat this as often as the plant needs water; it will vary based on your home's condition. Monitor its need with a moisture prod and adjust accordingly.

4. Add fertilizer to assist plant growth.

Plants that are actively growing should be given a blooming houseplant-type fertilizer. This is best done for a plant that is 2-3 weeks old. Follow the label directions for how much and how often to feed.



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- Fertilizing is important to keep the plant in good condition; the joints are fragile and can break apart if the plant descends into poor health. Generally, it should be fertilized 2-4 times a year with a 20-20-20 feed, but stop feeding about a month before the buds appear (this usually means stopping by the end of October).

Part2

Watering Your Christmas cactus

1. Water a Christmas cactus with care.

Caring for this plant can be a bit tricky as you need to take care *not to overwater or underwater it*:



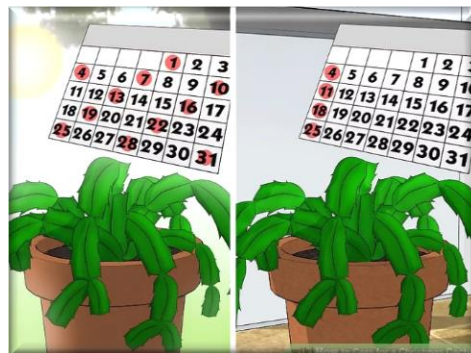
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- A Christmas cactus is a tropical cactus, not a desert cactus. Unlike most desert cacti, this variety cannot tolerate completely dry soil. If the soil gets too dry, the flowers buds will drop, and the plant will wilt. Feel the soil with your fingers; if it feels dry, it's time to water.
- Too much watering will cause spots from white rot to appear on the leaves, and the leaves will likely fall off. The soil should be evenly moist for best growth. The rule of thumb is *less water is better than too much water*.
- When watering, thoroughly water the plant. Before attempting to water the plant again, check to see that the top inch of soil has dried thoroughly first. Mist leaves as well as watering the soil.

2. Change your watering schedule seasonally.

Water the cactus based on your environment and the time of year. A good method is to water a cactus as follows:

- *Dry climate, outdoors*: Water every two to three days when warm and sunny
- *Humid, cool or indoors*: Water every week
- During the fall and winter months, the plants should be watered less frequently in order to promote blooming.

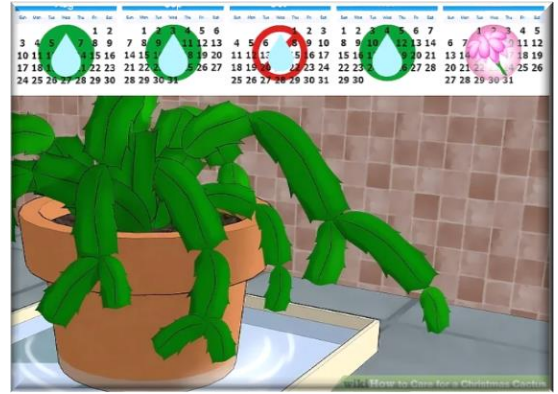


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3. Stop watering around October.

When October hits, your watering duties are over. You can carefully resume a light watering in November. If it's dry where you live, feel free to place the pot over a tray of moist pebbles. This is all to set up the bloom happening around Christmas.

- The only other time you should cease watering is after the plant blooms. At this time, cease watering for about 6 weeks to allow the plant to rest. New growth will still appear - and that is when watering should be resumed.



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4. Watch out for bud drop.

One of the most frustrating things that can happen to Christmas cactus is after the flower buds have developed they drop off the plant. Bud drop can be caused by several different conditions. Usually it's because of over-watering, but it can also be due to a lack of humidity or insufficient light.



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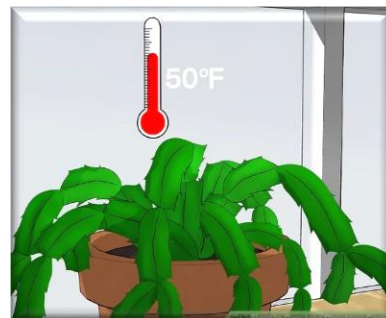
- If this starts happening, water the plant less and add some fertilizer to the pot. Move it to an area away from a hot radiator or vent and try a new spot where it can get a bit more sunlight.

Part 3

Getting a Timely Bloom

1. Encourage the flower blooming for the holiday season by lowering the temperature.

The key to getting Christmas cactus to flower during the holiday season is proper light exposure, correct temperatures and limited watering. If you manipulate these things yourself, you can time a bloom just how you'd like.



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- Because this plant is thermo-photoperiodic, it will set buds when day length is about equal to night length and when the temperature drops to 50 to 60 degrees F for several weeks. If the temperature drops further, the plant will not bloom.
- From September and October, the Christmas cactus should be kept in a cool room where temperatures will remain around 50-55°F (10-12°C), give or take a few degrees. Don't expose the plant to freezing temperatures. Plants should be blooming for the holidays if cool treatments are started by early November.

2. Keep the plant in a dark room during the night.

During the fall months, the Christmas cactus should be placed in a spot where it receives indirect, bright light during the daylight hours but total darkness at night – it requires long, uninterrupted dark periods of about 12 hours or more.



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- Begin the dark treatments in about mid-October to have plants in full bloom by the holidays. Place the plants in a dark area from about 12 or more hours each night for 6-8 weeks or until you see buds forming. A closet or unused bathroom are ideal places.
- Be especially careful with watering at this time. Reduce the watering slightly. Do not soak the soil after a dry period; only moisten the top few inches, since buds, flowers and even leaves can fall off if the roots are suddenly saturated.

3. When you see flower buds forming, increase light and humidity.

The "dark ages" are over when your plant starts budding. At this point, you should increase, humidity, light, water (not too much, of course), and the temperature. In other words, continue as you were a few months ago.

If the buds form too early, you can lower the temperature to stunt them. When you're ready, up the temperature and they should resume their progress.



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Part4

Caring for Your Cactus Post-Bloom

1. Prune the Christmas cactus about a month after blooming.

This will encourage the plant to branch out, especially after a period of "rest" has been granted. Some people wait until March or so, when new growth begins, to prune the cactus.

- As mentioned before, cease watering for 30 days post-bloom. When you see new growth forming, you can begin watering again.



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2. Propagate a Christmas Cactus by cutting off short, Y-shaped sections of the stem.

Each section must consist of two or three joined segments. Allow each section to dry for a few hours before pushing them into a 3-inch pot that contains the same potting soil as the parent plant. Plant halfway down the first segment and water sparingly to prevent rot from developing.



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- Treat the cuttings as mature plants. In about four to six weeks, the cuttings should have rooted and will begin to show some new growth. They grow quickly, and should take in about two or three weeks. You can fertilize after the cutting has grown one new segment.

3. Repot every 2-3 years.

Your plant should be fine for a couple of years unless the root system gets diseased or harmed. Apart from this, a new pot is needed when the roots have filled it or when the soil has been depleted of nutrients. Usually done in the spring.



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- When replanting or repotting, use new, fresh soil. It's worth the few extra dollars since it will probably be sitting in that soil for a long time.
- The best time for repotting is between February and April, about once every three years. Just be sure not to give it a pot that's too big; the Christmas Cactus flowers best when it's pot-bound.

Note: Adapted from WikiHow to do anything. (n.d.). Who to care for a Christmas cactus. Retrieved April 20, 2018, from <https://www.wikihow.com/Care-for-a-Christmas-Cactus>