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## Poinsettias

no. 7.412

by S.E. Newman and K.L. Goldsberry

### Quick Facts...

Select plants with dark green foliage and no lower leaves missing.

Poinsettias need moderately moist soil; water thoroughly whenever the soil feels dry to the touch.

Ideal temperatures are 60 to 70 degrees F.

Poinsettia plant parts are not edible, but they are not poisonous when eaten.

### History and Description

The Aztecs cultivated the poinsettia (*Euphorbia pulcherrima*) in Mexico long before Europeans came to the Western Hemisphere. They used the bracts for a reddish-purple dye and the latex to counteract fever. The plant also played a part in midwinter celebrations and was widely planted in gardens.

In 1925, Joel R. Poinsett, a botanist and the first U.S. Ambassador to Mexico, sent some plants to his home in South Carolina. He shared his finds with other plant enthusiasts. December 12 is National Poinsettia Day and recognizes Poinsett's contribution to the holiday season.

Many people have been instrumental in establishing poinsettias as a house plant and holiday tradition. The Ecke family of California (Eckespoint series), the Hegg of Norway (Hegg series), and Jim Mikkelsen of Ohio (Mikkelsen series) pioneered the early cultivars. Modern cultivars, bred to last longer in the home, originate from Germany and France, as well as the United States. Originally sold as cut flowers, poinsettias were not used as potted plants until the early 1920s.

Poinsettias do well in the home and keep their color until mid-March. The showy red, pink, white, yellow, bicolored or speckled modified "leaves" are called bracts. With proper light and temperature, they accumulate the anthocyanin pigments that give them their color. The flowers (cyathia) of the poinsettia are in the center of the bracts. Male and female parts are present, along with a yellow-edged nectary with sweet, fragrant nectar.

### Selection

Poinsettias come in many colors and forms. New selections appear every year. Choose a plant with dark green foliage. However, cultivars with lighter colored or mottled bracts typically have lighter green foliage.

Plants with pale green, yellow or fallen leaves generally have a root disease problem, have been overwatered, had an excessive dry period, or received limited fertilization. Bracts should be well developed with little pollen showing on the flowers.

When outside temperatures approach 35 degrees F, be sure the plant is well wrapped or sleeved before transporting. Low temperatures, even for short periods, can damage leaves and bracts. Remove sleeves promptly to prevent epinasty, a downward bending of the petioles.

### Cultural Requirements

Poinsettias thrive on indirect, natural daylight — at least six hours a day. Avoid direct sunlight, as this may fade the bract color. If direct sun cannot be avoided, diffuse the light with a shade or sheer curtain. To prolong color, keep plants out of cold drafts and away from excessive heat. Ideal temperatures are 67

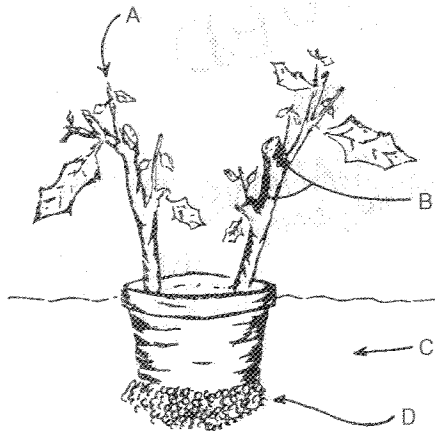


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to 70 F during the day and 60 to 62 F at night. Remove damaged or diseased leaves.

Poinsettias require moderately moist soil. Check plants daily and water thoroughly whenever the soil feels dry to the touch. Plants in clay pots require more water, while those in plastic pots are easily overwatered. Apply water until it runs out the drainage hole. Do not allow poinsettias to sit in standing water. If the container is wrapped with foil, remove it when watering or make a hole in it for drainage. Discard any collected water in the drainage receptacle.

A poinsettia does not require fertilization while it is in bloom. However, to maintain green foliage and promote new growth indoors after the holidays, apply a balanced all-purpose house plant fertilizer once a month. Always follow the directions on the fertilizer label.



**Figure 1:** A poinsettia plant pruned, pinched and placed outdoors after danger of spring frosts. A: New shoots pinched in late August. B: Early summer pruning. C: Garden soil. D: Gravel.

## Reflowering

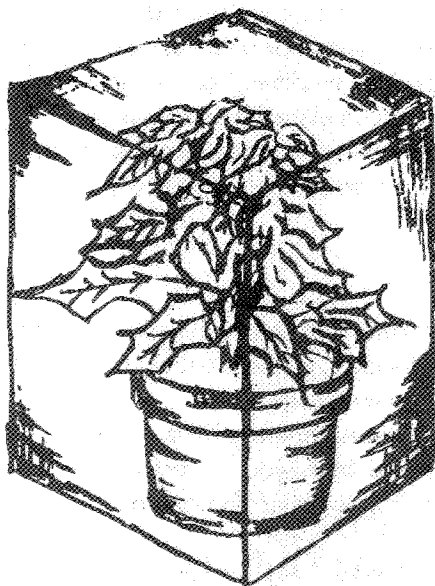
To "reflower" poinsettias for the next year, strictly follow these simple steps. After a plant has passed its stage of usefulness, usually by late March or early April, remove the bracts and part of the stem. This cutting back can be done any time through mid-July, depending on the desired final size and shape of the plant. Leave three or four leaves on each remaining stem (Figure 1).

During late spring and early summer, move the plant to the next larger size pot. Use a well-drained potting medium, preferably heat-pasteurized. Use any well-drained soil, such as a blend of equal parts sphagnum peat moss, vermiculite and/or perlite. Thoroughly mix 1 tablespoon of treble superphosphate fertilizer (0-46-0) in each gallon of soil mix. Apply a slow release fertilizer to the soil surface.

Prune tall growth at approximately six-week intervals to keep the plant well formed. The last pruning or pinch before flowering should occur in late August. The poinsettia is a naturally woody plant that easily can be trained into many shapes during summer pruning. Consider a poinsettia tree, hanging basket or other artistic creation. Just remember to heed the last pinching date and the darkness requirement to achieve your masterpiece by the holidays.

Indoors, place the poinsettia in a bright area where the temperature will remain constant. Water as needed and fertilize with a complete fertilizer every two to three weeks. During the summer, the plant may go outdoors in a partly shaded area. After the danger of frost is past in the spring, and minimum temperatures reach 55 degrees F, place the plant on the patio or sink it into the ground. It prefers a well-drained, slightly shaded location (see Figure 1). Turn the pot once a week to prevent roots from growing through the drainage hole. Bring plants into the house when night temperatures are colder than 55 degrees F (approximately September 1 in Colorado).

Poinsettias are short-day photoperiodic plants. This means they set buds and produce flowers as the autumn nights lengthen, blooming naturally during November or December. To flower and develop colored bracts, a poinsettia must receive as much sunshine as possible during the day. Starting about October 1, it also needs at least 14 hours of uninterrupted darkness each night at temperatures between 60 and 70 F. Stray light of any kind (street lights, pool lights or lamps) could delay or entirely halt the reflowering process. (See Figure 2). The dark treatment should last until color shows in the bracts (approximately Thanksgiving). Some modern cultivars may show color as much as two weeks before Thanksgiving. Continue fertilizing and watering to encourage good growth.



**Figure 2:** Use a wastebasket or opaque box to keep the plant in darkness for 14 hours a day. Start October 1 and continue until color shows in top bracts.

## Disease and Pest Control

Many pests can infest poinsettias. Wash off insects with mild soap and water, using a sponge or gentle spray. Mealybugs and whiteflies may require pesticide application or removal of infested plant parts. To remove mealybugs, apply ordinary rubbing alcohol with a cotton swab.

Cold, moist soil temperatures encourage root diseases. If lower leaves start turning yellow and fall off, a root rot condition may exist. Apply an all-purpose fungicide (usually available at garden centers) as a soil drench. The milky sap that exudes from a poinsettia when damaged is called latex and is not the result of any insect or disease infestation.

### Poinsettia Not Poisonous

In a 1995 poll funded by the Society of American Florists, 66 percent of the respondents held the false impression that poinsettia plants are toxic if eaten. Research at Ohio State University in 1971 showed that rats fed unusually high doses of poinsettia plant parts were not adversely affected. The POISINDEX® Information Service, the primary resource used by most poison control centers, states that a 50-pound child would have to eat more than 500 poinsettia bracts to surpass experimental doses. Based on the rodent tests, accepted by the U.S. Consumer Product Safety Commission, the commission denied a 1975 petition filed by a New York citizen demanding that poinsettia plants carry caution labels that indicate they are poisonous.

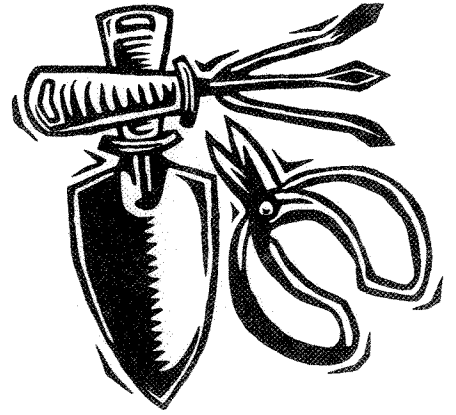
Like other non-food items, poinsettia plants are not edible and are not intended to be eaten. If eaten, parts of all plants may cause varying degrees of discomfort, but usually not death. Keep plants out of reach of small children.

### References

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