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# growing guide

## Holiday: Poinsettia Myths

BY Stephen A. Carver, Ohio Florists' Association

"Twas the night before Christmas, and all through the house, All the kiddies were stirring, and even a mouse. The poinsettias had been placed 'round the house with great care, In hopes that the children could not get to them there..."

The color, beauty, and gaiety of poinsettias have all contributed in making them THE Christmas holiday potted plant in the United States. In fact, the poinsettia had become so universally received that it has been the number one potted plant in our country for a number of years. Floriculture researchers continue to look at this crop from many "angles" – looking for ways to increase its appeal and value for homeowners.

However, each year, scattered reports in the popular press and via the "grapevine" suggest that poinsettias can be toxic to people and pets. The concern is that young children will be attracted by the beauty of the plants and try eating the leaves. Are these reports true? If they are, or even if they are just suspected, prudence dictates that great caution be used when bringing these plants into the home.

### The Question

What IS known about potential poisonous effects of poinsettias? If we can examine the evidence, we can draw our own conclusions about the relative safety of these plants. Then we can feel comfortable using them (or not) in our homes.

### The Rumors

The poinsettia belongs to the spurge family (Euphorbiaceae). Like other members of this family, it has a white, latex-like sap. Perhaps the poinsettia's milky sap lends to the perception of its toxicity since the sap, leaves, and stems of several other members of the spurge family are documented to be poisonous. There are several references that list poinsettias as being poisonous, but the basis of these claims appear to be anecdotal – repeated stories without careful follow-up to objectively evaluating the role poinsettia may have played in the problem. In one incident in 1919 that has been widely cited, a

two-year-old child of an Army officer in Hawaii died after eating a leaf. Even in this case, it is admitted that the evidence is only hearsay.

### The Studies

A study was conducted at The Ohio State University to evaluate the potential toxic effects of poinsettia leaves, bracts (colored leaves), and flowers on rats. They used rats between 0.2 and 0.8 ounce per pound of body weight (that's as high as 2.5 pounds of leaves per 50-pound child or 8.75 pounds of leaves per 175-pound man). At the end of the study, the researchers stated that none of the rats in the study showed signs of being poisoned or any other apparent ill effects within seven days of ingesting the poinsettia tissue.

Supporting this study are reports from Dominguez (1967) and Khastgir and Pradhan (1967) who analyzed leaves, bracts, and sap' as well as the whole plant. Neither report noted finding any chemicals commonly considered toxic.

Researchers from Children's Hospital of Pittsburgh and Carnegie Mellon University released a study in 1995 using data collected by the American Association of Poison Control Centers. The study found that out of the 22,793 reported poinsettia exposures, there was essentially no toxicity of any significance.

According to the American Medical Association *Handbook of Poisonous and Injurious Plants*, the poinsettia has been found to produce either no effect (orally or topically) or occasional cases of vomiting.

The POISINDEXÒ Information Service, the primary information resource used by the majority of poison control centers around the country, states that a 50-pound child would have to ingest 1.25 pounds of poinsettia bracts (500 to 600 bracts) to surpass experimental doses. At the experimental levels, there was no toxicity.

In 1975, the Consumer Product Safety Commission was petitioned to require poinsettias carry caution labels when offered for sale to the public. After reviewing all available information relating to the poinsettia, the

Hoerr Nursery  
8020 N. Shade Tree Dr.  
Peoria, IL 61615  
309/691-4561  
FAX 309/691-1834

mission pointed out that poinsettia bracts, like leaves of many other plants, may cause varying degrees of discomfort if eaten and should be placed out of the reach of small children.

### **The Conclusion**

Therefore, the research evidence and the judgment of several advisory/regulatory agencies shows few if any effects of poinsettia ingestion on humans. This mounting weight of evidence absolves the poinsettia of its toxic reputation, and it should help allay concerns of parents worried about children or pets being poisoned by eating poinsettias.

However, when dealing with questions of safety – especially of young children – it is not always easy to be totally objective in our decisions and actions. A summary statement found in a brochure published by the Society of American Florists presents a sensible conclusion and course of action.

"The poinsettia is the most widely tested consumer plant, and there is no indication ingestion will cause death or serious injury. The plant, however, is inedible – not grown for food – and some individuals may experience discomfort if parts of the plant are eaten. Non-edible materials should be kept out of reach of small children and pets." So sit back, relax, and enjoy the beauty that poinsettias can bring to your holiday season.

"Santa took his gift, a poinsettia, to his team and gave a whistle, And away they all flew like the down of a thistle. But clutching his plant very tight, as he drove out of sight. He said, 'MERRY CHRISTMAS TO ALL AND TO ALL A GOOD NIGHT!'"

A special thank you to the Society of American Florists for allowing us to reprint portions of their bulletin, "A Clean Bill of Health for the Poinsettia Plant."

### **Key tips for success**

Keep soil moderately moist, periodic applications of fertilizer will promote a long-lasting poinsettia.

Bright light and cool night temperatures will help delay flower bud drop and will maintain brightly colored bracts.

Winek, C.L. et al, Toxicology of Poinsettia. 1979 Toxicology Annual, V.3, pp.1 27-45.

Stone, R.P., & W.J. Collins. *Euphorbia pulcherrima*: 1971. Toxicity to Rats. Toxicol, Vol 9, pp 301-302.

Dominguez, X.A. Chemical Study of the Latex, Stem, Bracts, and Flowers of the 'Christmas Flower' *Euphorbia pulcherrima*. 1967. J. Pharm. Sci. 56(9)1184.

Khastgir, H. & B.P. Pradhan. Terpenoids And Related Compounds – IV> Chemical Investigation Of *Euphorbia pulcherrima* Willd. 1967. J. Ind. Chem. Soc. 44,159.





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# growing guide

## Specialized Gardening: Nectar Sources

It's easy to attract and keep hummingbirds, butterflies and caterpillars in your garden.

### Tips

In general, Hummingbirds prefer tubular or bell-shaped red & orange flowers. Once in your garden they will happily explore every flower.

Butterflies like pinks, reds, oranges, yellows & purples. they see large masses of colors versus a few spotted areas.

Plant a wide variety of flowering plants for cover & shelter. Many butterflies fly only when the temperatures are above 60°. Include woody shrubs such as Viburnum, Butterfly Bush, Serviceberry, Dogwoods, etc. in your gardens. Some species of butterflies seem to prefer native plants. Include a few in your plans or, in rural areas, let the weeds grow along the fence-lines or boundaries. Size is not important. You can attract butterflies & hummingbirds to a window box garden.

Provide water, even an area of wet sand. Butterflies love to bask in the sun near water. And, of course, birds need water too.

Restrict or eliminate your use of pesticides.

To keep butterflies in your gardens, be sure to include caterpillar food sources, too.

### Annual Nectar Sources

- Asclepias
- Cat Whiskers
- Cleome
- Heliotrope
- Impatiens
- Lantana
- Marigolds
- Nicotiana
- Salvia
- Snapdragons
- Sunflowers
- Tithonia (Mexican Sunflower)
- Verbena
- Vining Licorice Plant
- Zinnias

### Perennial Nectar Sources

- Asters
- Bee Balm (Monarda)
- Blanket Flower or Gallardia
- Butterfly bush *Note: If you only have room for one plant, this is it! Attracts Hummingbirds & Butterflies like a magnet.*
- Butterfly weed
- Cardinal Flower (Lobelia)
- Catmint
- Coneflowers
- Coreopsis
- Foxglove
- Garden Phlox
- Goldenrod
- Hardy Hibiscus
- Hardy Salvia
- Joe Pye Weed
- Liatris (Gayfeather)
- Lobelia
- Russian Sage
- Scabiosa (Pincushion Flower)
- Sedum
- Speedwell
- Veronica
- Yarrow

### Tropical Plant Nectar Sources

- Bougainvillea
- Hibiscus
- Passion Vine
- Shrimp Plant

### Vining Nectar Sources

- Honeysuckle
- Trumpet Vine

### Easy-to-Grow Caterpillar Food Sources

- Angelica
- Asters
- Clovers
- Dill
- Fennel
- Hollyhock
- Parsley
- Parsnip
- Queen Anne's Lace
- Common Rue
- Snapdragon
- Sunflowers
- Violets

Hoerr Nursery  
8020 N. Shade Tree Dr.  
Peoria, IL 61615  
309/691-4561  
FAX309/691-1834





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8020 N. Shade Tree Dr.  
Peoria, IL 61615  
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## Monday. Caring for Your Poinsettia

Hoerr Nursery is famous for its amazing, healthy poinsettias.

The poinsettia is sometimes referred to as the Christmas plant because it blooms at the Christmas Season and traditionally has the colors of the season—red and green. This unusual tropical plant was brought to the United States from Mexico in 1825 by the first US ambassador, Joel Robert Poinsett. Obviously, it was named for him.

Today there are so many colors, leaf shapes, and varieties to choose from that it is fun to find a group of poinsettias that work best with your décor.

Your poinsettias from Hoerr Nursery have received months of exceptional care. Every plant is coaxed along to grow to the right shape, to the right height with the ideal number of branches, and to become an overall healthy and gorgeous specimen.

If the weather is below 50 degrees, Hoerr Nursery can wrap your poinsettia in a sleeve. Please leave the sleeve on while you are traveling with your poinsettia. When you arrive at your destination, gently and slowly remove the sleeve. The bracts (branches) are fragile and an abrupt removal of the sleeve may inadvertently break off some bracts.

Once in full bloom poinsettias require very little care to extend their beauty for many weeks, often well into January. By following the tips below you may be surprised at how durable these plants are.

- **Bright light and cool night temperatures** will help delay flower bud drop and maintain brightly colored bracts. **Moderately bright light** is best, but poinsettias will tolerate low light. Avoid strong direct light.
- **Moderate temperatures are ideal:** 60-70° daytime and cooler, 60-65° night. Avoid excessively hot or cold areas, such as near a radiator or front door, and avoid drafts.
- **Moderately moist soil is preferred.** Water thoroughly when soil surface feels dry to the touch. If your plant has foil around it,

poke a few holes in the bottom so the water drains. Put a saucer beneath it. Drain excess water from the saucer to prevent root rot and protect furniture. Do not let the plant dry out.

- **Long lasting poinsettias** will benefit from periodic applications of fertilizer, used according to manufacturer's directions.

### Two Answers to a Poinsettia FAQ

**Q:** "Your poinsettias are so beautiful. How can I get mine to rebloom?"

The first answer was heard on a radio garden talk show a long time ago. "Wait until the coldest day of the winter," said Marcus Maxon, horticulturist at the Peoria Park District at the time. "Open a window and throw the poinsettia out. Then close the window."

"What!" shrieked the caller. "Then what?"

"Wait until next year and buy another one."

That's the first answer...

The second answer is more involved and may not be worth the effort. You have to decide if the effort was really worth all the Tender loving care, since poinsettias are one of the most difficult plants to coax into re-blooming indoors. Plus the results won't be the same exceptional quality as the amazing Hoerr Nursery poinsettia.

Don't worry if you give up along the way... most people do!

But if you want to try here's how:

- The first step is to take care of the plant during the holidays. Pay attention to the light, the temperature the watering and don't let the plant get dried out.
- In February, your plant may fade in color. Keep it by a sunny window and check frequently to make sure it is not too dry—or too wet.

- In April, cut the stems back to about 6" above the soil in the pot.
- In May you can add some fertilizer (20/20/20), Osmocote or Ferti-lome, 23-18-16, at the recommended rate of one teaspoon per gallon.
- In Spring, once the danger of frost is past, and the temperature stays above 50°, you may move the plant outdoors where it receives moderate shade in mid-afternoon. Do not plant the poinsettia in the ground; leave it in its pot. Since pots dry out quickly, be attentive to its watering needs. Check to see if the plant needs repotting. For July and August, fertilize with one teaspoon of a balanced fertilizer each second time you water.
- By August, if inside, the plant should be kept in direct sunlight. If outside, have direct sun only an hour or two a day. As growth develops, cut or pinch back, leaving three or four leaves on each shoot. Repeat each time the plant sends out new shoots until mid-August. The goal is to encourage a full, rounded habit. By mid-to late August, the poinsettia plant should be back indoors. Set the poinsettia near a sunny window where the temperature will remain between 65 to 70°.
- To have the plant in full bloom by Christmas, you must keep it in complete darkness from 5 p.m. to 8 a.m. starting the first week in October and continuing until Thanksgiving. Flowering will be delayed if the plant receives any light during this period. Even a short exposure to a dim light will wreak havoc with the color change and the blooming because poinsettias set flower buds only after being exposed to 10 hours of light or less per day for about 10 weeks.

To create total darkness, you may put the poinsettia on a cart and roll it into a closet each evening, or find a light-tight box and cover it.

So, to summarize, total darkness for 14 hours per day, and in the daytime the plant must be in a sunny location for maximum growth and development of those bracts and flowers you're diligently trying to create.

- If, after almost a year of effort, your Poinsettia develops bright color in its out-most leaves, bring it out into the open, rejoice and continue fertilizing until mid-December, then reduce applications to ½ the normal amount and repeat the cycle again.

Ideally your plant should grow to a total height of 4" higher each year, and probably each year would need to be repotted.

- Even with all this work, your poinsettia may not bloom, may not color, may not survive, and most likely will not look as robust and symmetrical as the amazing poinsettias from Hoerr Nursery.

So, please feel free to toss your poinsettia at the end of the season and look forward to a holiday tradition of buying your NEW fabulous poinsettia at Hoerr Nursery next year!



*FYI - each year we get questions as to whether poinsettias are poisonous, and the answer is NO!*

*They are not edible (meaning they are not grown to be ingested, and may cause intestinal discomfort if consumed), but they are not poisonous.*

*Several scientific research studies have confirmed this, but even so, we don't recommend eating them!*





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# growing guide

## Holiday: Caring for Your Fresh, Cut Christmas Tree

The key concept in care for your fresh cut Christmas tree is to keep the tree from drying out.

It's estimated that as much as half the weight of a cut tree is water, so aggressively work to keep water available to your tree. If you are conscientious, and depending on how long the tree is in your home, your tree may continue to absorb water the entire time it is decorated and adding holiday cheer to your home. By starting with a fresh cut at the trunk and keeping the tree watered, it should last the Christmas season.

1. As soon as you select your tree at Hoerr Nursery, a representative will be happy to make a fresh cut, removing about 1/2" at the bottom of the trunk of the tree. Some lower branches may also be removed so the tree fits best in your stand. We have heavy duty stands available which are sturdy and provide a large supply of water accessible to the tree. You may also want to purchase a spray product with an anti-desiccant or anti-wilt property to minimize needle loss. It will also minimize moisture loss.
2. At home, place the tree in water immediately. If the tree has not been placed in water within 4 to 8 hours following the fresh cut, a new cut must be made.
3. You may use unsoftened tap water. Although it is not necessary to add preservative to the water, some people prefer to add a commercial or homemade tree preservative. The temperature of the water will not affect the tree's ability to absorb it.
4. We suggest you set the tree up in the garage or unheated room to immediately start soaking up water before getting everything else prepared for it in your home. Avoid getting dirt on the clean cut end, or bruising it. (If you do, consider making a new clean cut to assure that the tree is able to soak up water.
5. For safety, use a stand that is appropriate for your tree. Anticipate that the tree will get jostled and make sure the stand can keep the tree upright.
6. Locate the tree in the coolest part of the room. You can also turn the heat down which will also help to keep the tree from drying out.
7. Keep trees away from any source of heat: radiator, fireplace, space heater, oven, stove, candles. Keeping it out of direct sunlight will also slow the drying process.
8. Use good sense with what you put on the tree: check to make sure the electrical cords and plugs are in good shape and respond normally when you plug them in. Read the box of lights for correct use and safety information.
9. Unplug lights when going to bed or leaving the house.
10. Check the water level daily and use tap water to refill.
11. Do not let the water reservoir go dry. The tree's resin may clog the trunk, preventing further water uptake.
12. A tree can use a lot of water, typically 1 quart per inch of trunk diameter. For example, a 7 1/2' tree with a 4" trunk can use 1 gallon of water in a day.
13. After the holiday, when the tree becomes dry, remove all electrical and all decorations and take the tree outside. Do not burn the tree in your fireplace. The branches can be added to your perennial beds for the winter and removed in the spring.

**Have fun with your fresh tree from Hoerr Nursery!**

*ps- we flock trees too!*



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8020 N. Shade Tree Dr.  
Peoria, IL 61615  
309/691-4561  
FAX309/691-1834



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## Success with "Ready to Plant" Living Christmas Trees

You can start a magical family tradition with a ready-to-plant Christmas tree. As the years pass you'll watch your Christmas tree develop into a beautiful landscape specimen and wildlife habitat. You can continue to use it as part of the holidays by adding outdoor lighting.

**For success with your ready-to-plant, living Christmas tree, use the following guidelines:**

- Select a balled and burlapped, or container grown 2½' to 3½ foot pine, spruce, fir, pyramidal yew or cone-shaped Green Mountain boxwood. A tree any larger will be too heavy to easily get in and out of your home.
- Place the tree in a large, sturdy container that will accommodate the root ball plus an additional 3 inches of organic mulch around the root ball. The mulch prevents the root ball from drying too quickly in the heat of the home. Water the root ball thoroughly and leave it in the garage for a couple days before moving it into your home.
- Select your planting site outside and call- **J.U.L.I.E., 1-800-892-0123**, to check for underground wiring and services. After the area is marked, dig a hole as deep as the root ball and about 2 times as wide. Put some straw into the hole and, to be safe, cover the hole with plywood.
- If you keep your home around 68°F, the plant can be inside for about a week; ten days in cooler homes. If the tree is in the house too long it will become too dry and will not survive.
- Use a minimum of lights for decorating, and only the miniature size.
- After the holidays, move the tree back into the unheated area for 3 to 4 days to prepare it for the move back outside.
- After a few days in the unheated space, move the tree into its hole for planting or move it to a protected side of a building near its planting hole. The tree can remain for days, weeks or even a couple of months before planting is necessary. When moderate weather returns, plant the tree in its hole and place the soil around it.

Living "Ready to Plant" Christmas trees are a great way to the celebrate the season and provide exceptional value in your landscape for years to come.



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## Holiday: Christmas Cactus

The Christmas cactus plant is a hybrid of two different species of schlumbergera (s. truncata and s. russelliana). It was first developed in England about 150 years ago. It is popular around the holidays because it generally blooms at about Christmas-time. Being a tropical rain forest plant, it is not hardy in our area, so it is raised as a house plant. Christmas cactuses can be placed outside in the summer months but need to be protected from sun scorch. They can live for years – even generations – with simple care.

This distinctive plant is a forest cactus, a true cactus, but is less drought tolerant than many cacti. Your Christmas cactus thrives in soil that will drain quickly and does not like "wet feet." Yet, balance is important: they can suffer and ultimately die from overwatering as well as underwatering. For the correct dampness, feel the soil around the plant before watering. It should feel like a damp, wrung out sponge most of the time, with the top inch of soil drying out a bit from time to time.

### Tips for Care include:

- Avoid extreme temperatures and drafts. Blossoms will last longer in cool temperatures.
- Water thoroughly when needed; not too frequently, no wet feet, but do not let it completely dry out. Too wet or too dry can cause buds to drop or lead to other problems.
- Take care to not damage the plant when moving it or watering; the branches and especially the joints are flat and fragile.
- Let the plant rest after it has bloomed. Keep it cool and water infrequently until about the end of March.
- Once active growth resumes in the spring, prune by removing a few sections from longer branches. This encourages branching and gives you cuttings to plant.

- Fertilizer is only recommended when the plant is actively growing. A typical houseplant food can be applied every two weeks during that time.
- Repot occasionally. Every three to five years repot your plant in fresh, sterilized soil.
- Provide enough sunlight. They do best with lots of indirect light.
- Since it is a tropical plant, it prefers humid conditions. You can raise the humidity by placing the pot on top of a saucer full of pebbles. Keep the saucer filled with water to just below the top of the pebbles.
- To have blooms again for the holidays, your plant will need special treatment starting in about mid-October. Keep it cool (about 55-65 degrees is recommended) and provide enough darkness by covering it or moving it to a closet or other completely dark room for 12 hours or more each night. Be sure to move it back to a bright spot during the day.

### Propagation

You can start new cuttings of Christmas Cacti by taking a 4" cutting (or about 2-3 segments) off one on the branches and sinking about 2" into a sandy soil (about 50% sand and 50% soil). Keep in direct sunlight and water regularly. After a few weeks it should be rooted and you can remove it from the sandy soil and plant in good quality sterilized soil.



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