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## ***Poinsettias***

by Dr. William C. Welch, Landscape Horticulturist, Texas Cooperative Extension

### ***The Myth***

The widespread belief that poinsettias are poisonous is a misconception. The safety of poinsettias in the home is demonstrated in scientific studies conducted by Ohio State University in cooperation with the Society of American Florists. The study concluded that no toxicity was evident at experimental ingestion levels far exceeding those likely to occur in a home environment. In fact, the POISINDEX Information Service, the primary information resource used by most poison control centers, states that a 50-pound child would have to ingest over 500 poinsettia bracts to surpass experimental doses. Yet even at this high level, no toxicity was demonstrated. As with all ornamental plants, the poinsettia is not intended for human or animal consumption.

## **How to Select a Beautiful Poinsettia**

### ***Bract Color***

Look for plants with fully mature, thoroughly colored and expanded bracts, i.e., the colorful parts of the poinsettia. Avoid plants with too much green around the bract edges. Bracts come in white, pink, peach, yellow, marbled or speckled, as well as the traditional red. An abundance of dark, rich green foliage is a vital sign of good plant health. Look for plants with dense, plentiful foliage all the way down the stem.

### ***Shape and Proportion***

Proper proportion of plant height and shape relative to container size is the key to an aesthetically pleasing poinsettia. Plants should appear balanced, full and attractive from all angles. A generally accepted standard is that the plant should be approximately 2-1/2 times taller than the diameter of the container.

### ***Durability and Freshness***

Select plants with stiff stems, good bract and leaf retention, and no signs of wilting, breaking, or drooping. Be wary of plants displayed in paper, plastic, or mesh sleeves. A poinsettia needs its space; the longer a plant remains sleeved, the more the plant quality will deteriorate. Examine the soil of the plant. It's best to avoid waterlogged soil, particularly if the plant appears wilted. This could be a sign of irreversible root rot. When



**Poinsettia 'Monet Twilight'**

transporting the plant, protect it from chilling winds and temperatures below 50 degrees F. Re-inserting the poinsettia into a sleeve or a large, roomy shopping bag will usually provide adequate protection for transporting the plant home when it is cold and windy.

## **How to Care for Poinsettias at Home**

### ***Location and Temperature***

The poinsettia thrives on indirect, natural daylight, and exposure to at least six hours daily is recommended. If direct sun cannot be avoided, diffuse with a light shade or sheer curtain. To prolong the bright color of the poinsettia bracts, daytime temperatures should not exceed 70 degrees F. Avoid placing the plants near drafts, excess heat, or the dry air from appliances, fireplaces, or ventilating ducts.

### ***Water and Fertilizer***

Poinsettias require moderately moist soil. Water the plants thoroughly when the soil surface feels dry to the touch. Remove the plant from decorative pots or covers, and water enough to completely saturate the soil. Do not allow the poinsettia to sit in any standing water; root rot could result which could kill the plant. It is not necessary to fertilize the poinsettia when it is in bloom.

### ***Outside Placement***

Since poinsettias are sensitive to cold weather, frost, and rain, outside placement during the winter months should be avoided. However, in mild climates, an enclosed patio or entry way may be suitable, provided the night temperatures do not drop below 55 degrees F. Make certain the delicate bracts are well protected from wind and cold rain.

### ***After the Holidays***

Keep the plants in indirect sun and water regularly. Place your plants outdoors, where they can bask in the warmth of spring and summer, after outside night temperatures average 55 degrees F. or above. When the bracts age and lose their aesthetic appeal, usually by late March or early April, cut the poinsettia back to about 8 inches in height. By the end of May you should see vigorous new growth. Continue regular watering during the growth period. Fertilize every 2 to 3 weeks throughout the spring, summer, and fall months with a well-balanced, complete fertilizer. Around June 1, you may transplant your poinsettias into larger pots. Select pots no more than 4 inches larger than the original inner pot. A soil mix with a considerable amount of organic matter, such as peat moss or leaf mold, is highly recommended. If you wish, you may transplant the poinsettias into a well-prepared garden bed. Be sure the planting bed is rich in organic matter and has good drainage. Pruning may be required during the summer to keep plants bushy and compact. Do not prune after September 1.

### ***Re-flowering***

The poinsettia is a photoperiodic plant, meaning that it sets bud and produces flowers as the autumn nights lengthen. The plants will naturally come into full bloom during November or December, depending upon the flowering response-time of the individual cultivar. Timing the bloom to coincide closely with the Christmas holiday can be difficult without the controlled environment of a greenhouse. Stray light of any kind, such as from outside streetlights or

household lamps could delay or entirely halt the re-flowering process. Starting October 1, the plants must be kept in complete darkness for 14 continuous hours each night. Accomplish this by moving the plants to a totally dark room, or by covering them with a large box overnight. During October, November, and early December, the plants require 6 to 8 hours of bright sunlight daily, with nighttime temperatures between 60 and 70 degrees F. Temperatures outside this range may delay flowering. Continue the normal watering and fertilizer program. Following this regime for 8 to 10 weeks should result in a colorful display of blooms for the holiday season.

*From Aggie Horticulture Greenhouse/Nursery Guides:*

## Diseases & Control: Common Diseases of Poinsettias

<b>Root, Crown and Stem Rots</b>			
<b>Pathogen</b>	<b>Symptoms</b>	<b>Conditions Favoring Disease</b>	<b>Control Measures</b>
Rhizoctonia root & stem rot*	Brown rot of stems at soil line; sunken, constricted canker of stem; brown lesions on roots; lower leaves yellow and fall off.	Excessive soil moisture; high temperatures.	Rouge infected plants; fungicide drenches using Terraclor 75WP (PCNB), Banrot or Domain.
Pythium root & stem rot*	Wet, brown-to-black decay of roots and small roots slough off leaving inner string of stele; lower leaves yellow and drop; plants are stunted.	Excessive soil moisture, poor drainage of the medium; active at low temperatures.	Rouge infected plants; Drench with Truban 30 WP, Truban 25 EC, Banrot 40 WP, Subdue 2E, Lesan 35 WP.
Phytophthora crown & stem rot	Stem canker; internal pith tissue appears brown when cut; stunting and wilting can cause leaf rot also.	Overhead watering; poor media drainage; high temperatures.	Rouge infected plants; Drench with Truban 30 WP, Truban 25 EC, Banrot 40 WP, Subdue 2E, Lesan 35 WP.
<i>Erwinia carotovora</i> (Bacterial soft rot)	Affected plants wilt. Rooted and unrooted cuttings undergo soft decay, total maceration and deterioration of lower stem. Occurs very rapidly, usually 3 days after sticking cuttings. Primarily a propagation problem.	Waterlogged rooting media; can be very severe under warm conditions.	Strict sanitation; dip cuttings in 500 ppm chlorine; discard diseased cuttings immediately; Streptomycin can be used but is not very effective.

\*Pythium root and stem rot and phytophthora crown and stem rot are caused by water mold fungi that have very similar life cycles. Environmental conditions required for infection and plant damage, as well as control measures are similar.

## Foliar Problems

Pathogen	Symptoms	Conditions Favoring Disease	Control Measures
Botrytis gray mold (most destructive disease of poinsettia)	Leaf and flower tissue rots; worse on immature leaves or wounded or stressed tissue. Lesions on leaves and bracts appear as tan-brown spots. Masses of gray spores can be seen under favorable conditions.	Poor air circulation in greenhouse resulting in air stagnation and high humidity. Wounded or nutritionally stressed tissue much more susceptible to infection.	Adequate air circulation; reduce humidity; avoid plant wounding; strict sanitation to remove dead plant tissue. Fungicide application using Chipco 26019, Ornalin 50 WP (not on plants in color), or Exotherm Termil.
Powdery Mildew	Dusty white growth on leaves, stems or bracts.	Poor air circulation, foliar wetting, crowded plants, stressed plants.	Maintain plants in vigorous condition; Avoid foliar wetting; apply preventative fungicides such as Captan 50 WP or Zyban WP.
Fungal leaf spots (several fungal genera)	Dry brown-black lesions with or without a yellow halo, usually circular to irregular in shape.	Cool to moderate temperature, high relative humidity.	Adequate air circulation to prevent periods of high humidity. Remove infected plants/plant parts from greenhouse. Apply Phyton 27, Cleary's 3336 WP, Domain FL, or Zyban WP.
Bacterial leaf spots (several bacterial genera)	Water soaked lesions, usually gray to dull-brown in color, frequently with angular shape and yellow halo. Can usually be seen on both upper and lower surface of the leaf.	Leaf wetting, splashing water, usually more severe at temperatures in the 80-90 degree range.	Rouging; strict sanitation measures; avoid foliar wetting; Agristrep sprays used a preventative.

**Note:** Be sure to read and follow all label information when using disease control chemicals.

Remember that effective disease control involves anticipating plant disease, using stringent sanitation methods to exclude pathogen introduction, environmental modification to reduce plant infection by potential pathogens, as well as preventative sprays of effective disease chemicals. Growers should consider all of these disease control steps as essential in an overall disease control program.

The diseases listed in this table are not inclusive of all those that are known to occur on poinsettias. They do, however, represent those diseases that Texas growers experience most frequently.



Red Velvet



Snowcap



Visions of Grandeur