



# ECHO



## Texas AgriLife's Community Horticultural Outreach

### Changing Seasons



Fall is here and winter is fast approaching. The cooler weather is a welcome change from the temperature extremes of our Texas Summers. It has been a busy year and there is still so much more to accomplish before winter sets in. I don't look forward to our long nights and short days, and lack of color in the landscapes. However, we should count our blessings here in North Texas, because it's not as bad as our neighbors to the North. We are fortunate to have mild winters that allow us to maintain some color in the landscapes through the winter.

Fall brings some exciting changes to our organization each year. Our Master Gardener Class of 2009 will graduate on the evening of December 2<sup>nd</sup>, 2010 at the Landing at Myers Park and Event Center. The event gives us an opportunity to recognize those among us that have gone above and beyond the normal call of duty. I encourage everyone to attend and bring a guest with you. Fall brings the competition of the Master Gardener training and the addition of a group of enthusiastic Master Gardener interns ready to complete their 65 hours of volunteer service. Please join me in congratulating both groups of gardeners who have studied and worked hard to complete the training class and donate their time to our community through education and outreach.

Fall brings new opportunities for volunteer service. This time of year we seek willing and able volunteers who hear the call to leadership in our organization. Our Project leaders and Board members who have served their terms are seeking replacements for next year. If you have leadership experience, new ideas, and a willingness to serve, we need you. Please contact a board member, project leader, or myself if you are interested in leadership position within the Master Gardener program.

Great Gardening,  
Dr. Greg Church

**November-December 2010**

Educational programs of Texas AgriLife Extension serve people of all ages regardless of socioeconomic level, race, color, sex, religion, disability, or national origin. The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas cooperating.

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## Happy Holly Days By Mary Nell Jackson



**Hollies are identified with Christmas decorating but this evergreen plant delivers much more than an annual pruning for a few sprigs with red berries to decorate our homes.**

The plant has over 400 varieties from which to choose. Every garden, however small or large, should have at least one variety of the easy to care for holly plant.

Holly plants range from dwarf bushes to hedges to tall trees. If you only need a dwarf bush consider dwarf Yaupon Holly, *Ilex vomitoria*. 'Nana' is only 2 feet high and 3 feet wide. A small shrub variety, Dwarf Burford Holly, *Ilex cornuta* 'Burfordii Nana' grows to a height of 5 feet and about 3 feet wide. Hollies that grow 9 feet and more include Mary Nell Holly; *Ilex cv.* 'Mary Nell', this one can grow to about 15 feet tall and have a width of 19 feet. It is a good choice for sun. Two other varieties that can take sun to partial shade are Foster's Holly, *Ilex x attenuate* 'Fosteri' that will reach a height of 9 feet with a width of about 6 feet, and Yaupon Holly, *Ilex vomitoria*, growing up around 10 feet with a width of about 6 feet. Small trees that can grow up to 20 feet include Yaupon Holly, *Ilex vomitoria*, at 15 feet and 10 feet wide, this small tree can take sun

to shade. This information was provided from recommended landscape plant materials for North Central Texas authored by Dr. Steven George, Extension Horticulturist.

Holly plants need to be pruned in the fall or winter. The branches



should to be trimmed for new growth the following spring. Old growth cut back will allow thicker foliage to appear in the spring. You can also pick prune to get the shape you desire if a branch gets out of the shape you desire. If you plan to decorate your home or craft with holly branches November and December are the months to choose.

Holly bushes need sunlight to grow. If you have partial shade be sure to select ones recommended for less sunlight. If your holly plant starts to fade it will be a sure sign it isn't getting enough sunlight. Be sure the soil drains well in your planting area.

The most popular holly leaves have small spikes or thorns at the ends of the leaves. The thorns provide a safe haven for songbirds to

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hide beneath the branches for protection. The thorns keep larger birds of prey and other predators away. Some hollies have leaves with no spines.

Some caution should be followed when using holly for decorating. The most common uses are holly



branches cut from bushes or stems used in garlands, centerpieces and wreaths. The foliage will last after being cut for several weeks before it loses its color and dries up. If you plan to use your holly branches in live floral arrangements it will last several weeks if watered and placed in sunlight. Use holly berries for decorating with care, as the berries can fall off and stain the carpet. Also, children may be tempted to snack on the bright red berries.

To get berries on your bushes, a male and female plant must be within thirty to forty feet of each other. The male will pollinate the branches of the female and red berries will grow each year. If there are not both sexes of plants, the plants will still grow, but without the berries. Be careful when planting if you do want berries. They are highly toxic to humans. If you have children around, the berries could make them sick with diarrhea

and vomiting. Do not plant your hollies near play areas or don't plant both sexes until the children are older. There are some hollies that do not produce berries.

A partial list of Hollies that do not produce berries include: Yaupon 'Will Fleming', 'Carrisa', Dwarf Chinese, Dwarf Yaupon, 'Festive' TM, 'Little Red' TM, 'Oak Leaf Red Holly' TM, 'Little Rascal' TM and 'Mary Nell'.

The berries are a food source during the winter months for the birds. Songbirds will eat the berries if there is no other food source nearby. The bright red color will stand out especially if there is snow on the ground. Some other fruit eating small animals such as raccoons, opossum or mice



will also snack on the berries. The thorns on the leaves will not harm the animal's mouth.

I have a personal favorite, the'

*Mary Nell*'. You can only imagine my surprise when I discovered a holly with my name, an uncommon one for sure. The 'Mary Nell' holly was born in Alabama; all three of her parent hollies came originally from eastern Asia. The late Dr. Joe McDaniel, former Professor of Horticulture at the University of Illinois, crossed a lusterleaf holly (*Ilex latifolia*) with a holly that was itself a hybrid between Burford holly (*I. cornuta* 'Burfordii') and 'Red

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Delight' pernyi holly (*I pernyi* 'Red Delight'). The selection was named for Dr. Mc Daniel's widow, 'Mary Nell'. 'Mary Nell Sibling' is another selection from that same cross. It is a female, but has smaller leaves with more marginal spines.

All my 'Mary Nell' hollies are planted as specimen.

I have found this holly very easy to care for. I prune my hollies to tree form. A few small 'Mary Nell's' I have purchased are very slow growing, but I have learned to side dress



them with compost and balanced fertilizer to encourage growth. I made a mistake a few years back of purchasing some inferior stock hollies and they have never grown well, lessons learned.

The shape of one of my older 'Mary Nell's' with her dense framework of branches make her a perfect tree to display holiday lights during the winter season. In the spring I often catch sight of a bright red male cardinal among the branches. 'Mary Nell' does not produce berries.

Holly does have other uses besides being a symbol of the holidays. Holly wood is heavy, hard and whitish except in the center of very old trees. A holly wood is used for walking-sticks because of its hard wood. English wood turners

find this wood valuable because it takes a very high polish. The wood is used for inlaying. When it is freshly cut it has a slightly greenish hue, but soon becomes perfectly white. If the wood worker chooses to stain his holly wood it is usually stained blue, green red, or black. It has been traditionally used to make sets of chess pieces and the black pieces are stained black while the white pieces are the natural wood. Holly can be found in almost every region of the world with the exceptions being Australia and Antarctica, with extreme growing conditions. It is best known grown in England, but in Italy and in the woods of France (Brittany), it can grow 50 feet or more. I was surprised to learn that mathematical instruments are made of it, also the blocks for calico printing. Holly wood has even been used in wood engraving as a substitute for boxwood, it is considered inferior to boxwood for this process. A straight Holly-stick is a much prized stick for light driving whips used for horses .

As the winter days become shorter and the holiday season makes us more aware of our evergreen landscape, we should give a nod to the holly tree who hides such fascinating secrets. We always thought it was a pretty evergreen tree to hold our holiday lights for a festive season, that too!

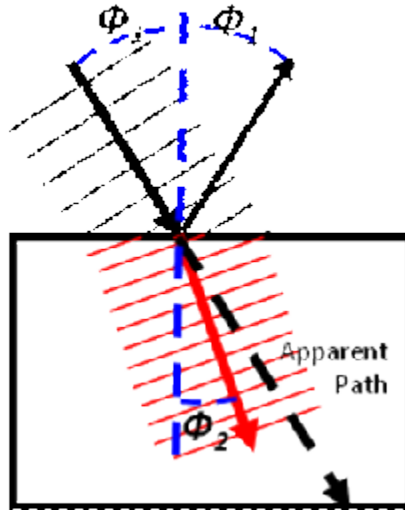


*About the Author:*  
Mary Nell Jackson, class of 1997, is a herb lover and discovered her love for writing about the garden a few years ago when she penned an article about gardening in her p.j.'s.



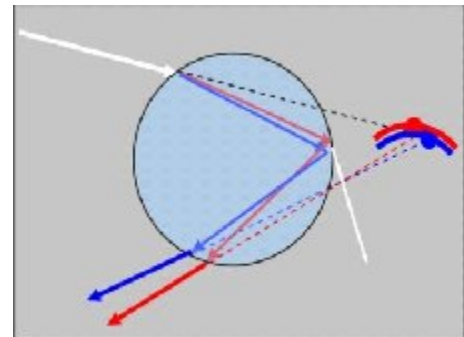
# How Are Rainbows Formed? By John Worley

**When light waves strike the surface of water, some of the light is reflected off and some cross into the water. The light wave's speed slows down in water. (You thought that the speed of light is a constant 299,792,458 meters/second! Not so!)** The slower speed causes the wave crests to get closer together inside the material and the ray to bend, or refract, as shown in the figure at the right. Our brain assumes the rays are straight and traces the apparent path shown.



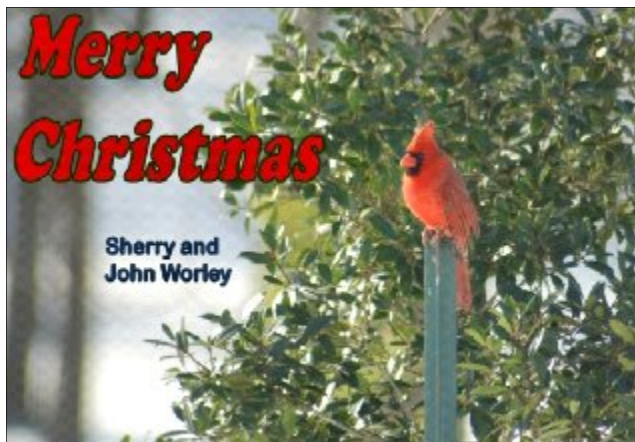
The different colors of light bend at slightly different angles in the water creating a spectrum similar to that as light shines through a prism.

A rainbow is formed when light enters a drop of water (rain, water sprinkler, waterfall, etc.). The light is refracted upon entry, reflects off the back surface, and refracts again upon exit from the drop of water as shown at the right.



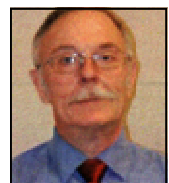
To see a rainbow, the sun must be behind you (as you face the rainbow). The blue light actually leaves the drop above the red light. But, you say, the blue stripe is at the bottom of the rainbow. Yes, but the eye traces the rays back to their apparent origin, where they have crossed as shown at the right.

Not all of the light is reflected off the back surface of the drop of water. A small amount of the light is scattered down, but none is scattered up. This results in the area below the rainbow being slightly brighter than the area above the rainbow.



Have you considered making custom Christmas cards? You can get 4"x6" prints for 8 cents on line or 17 cents locally. Take a photo, create a 4"x6" image, and add some text. The example on the left was created using Word Art (in Word) and then copying that text onto the photo using a simple photo editor.

*The Author: A Production Test Development Engineer in the Telecom field, John (Class of 2009) is an accomplished photographer and vegetable gardener. Other passions are writing and involvement in civic issues. He recently earned title of "Best Civic Activist" in city of residence, Princeton.*



## Book Review

by Mary Means

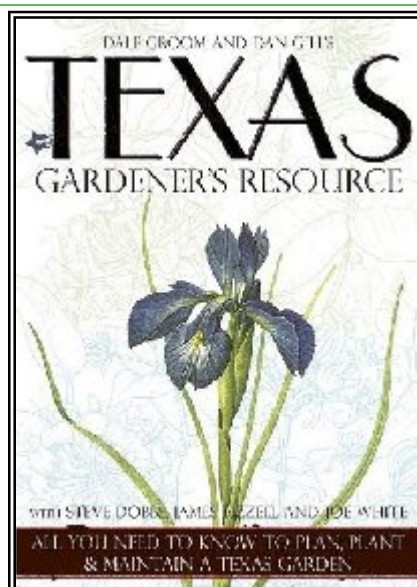
### Texas Gardener's Resource: All You Need to Know to Plan, Plant, & Maintain a Texas Garden

was written by Dale Groom and Dan Gill. Other contributors: Steve Dobbs, James Fizzell, and Joe White.

As the title suggests, this book is a great resource for Texas gardeners. Well illustrated and filled with charts and lists, this book makes a worthy addition to any Texas gardener's library. Having a 2009 copyright date, the book was published by Cool Springs Press in Tennessee. Principal writer Dale Groom is a well-known resident of North Central Texas. Dan Gill and Dr. Joe White are more closely associated with Louisiana. Other contributors are nationally known horticultural personalities. Having said that, the book is filled with good information, but frequently, topics are discussed in general while the specifics are covered by statements such as "check with your local nurseryman" or "check with your local extension agent". For example, when discussing the pruning of fruit trees, the writer suggests "consult the nursery where you purchased your plants".

The first chapter of the book covers such topics as soil preparation, climate and water wise gardening. Difficulties of Texas gardening are discussed. Dale Groom and the other writers manage to project an attitude of enthusiasm while discussing such topics as wind and heat. This encouraging attitude is maintained throughout the book.

Main chapters of the book are divided into plant classifications such as annuals, perennials, roses, trees, vines, and others. The first section of each of these



chapters is a discussion of the plant type. What is an annual; what are its particular needs; what soil preparation is best. The middle section of these chapters contains a plant list. The list covers topics

such as when to plant, where to plant, care, and maintenance. The last part of each chapter contains a month by month discussion of activities involved with the particular plant type. For example, in March, the chapter on edibles says, "Harvest root crops before the roots become too large and tough."

There is an appendix at the end of the book. In it are charts and lists primarily concerned with pest control. More information on water wise gardening is also included. The appendix includes a list of public gardens in Texas. There is also a list of garden and plant related clubs.

Texas Gardener's Resource was given to Collin County Master Gardeners through the Speakers Bureau by the Custer Road United Methodist Church. Classified as a Help Desk Reference Book, it is not for check out. Enjoy reading through it in the Extension Office in McKinney. Better yet, ask for it, or give it, as a Christmas gift.



*About the author: Mary Means is a class of 2002 CCMG, contributes the book review and is a delegate to state meetings.*

# Interesting Facts About Holiday Plants

Richard Jauron, Department of Horticulture  
Iowa State University Extension



The poinsettia, Christmas cactus, and mistletoe can be found in many homes during the Christmas and New Year's holidays. The

poinsettia and Christmas cactus are prized for their colorful flowers. Mistletoe is hung in the home for those wishing to kiss under the mistletoe. While the poinsettia, Christmas cactus, and mistletoe are recognized by nearly everyone, many individuals aren't aware of interesting facts about the plants.

## Poinsettia

The poinsettia is native to Mexico. Poinsettias were cultivated by the Aztecs. The colorful bracts were used to make a reddish purple dye. The poinsettia's milky sap was used to treat fevers. Poinsettias were first introduced into the United States by Joel Roberts Poinsett, the United States Minister (ambassador) to Mexico from 1825 to 1829. Poinsett had plants sent to his home in South Carolina. He then distributed plants to horticultural friends and botanical gardens. The Ecke family of California has been instrumental in the development of today's poinsettia.

The colorful part of the poinsettia, commonly referred to as the plant's flowers, are actually modified leaves or bracts. The true flowers are yellow to green, button-like objects located in the center of the bracts.

Poinsettias are short-day plants. Short-day plants grow vegetatively during the long days of summer and produce flowers when days become shorter in the fall. In order for poinsettias to flower for Christmas, they must receive complete darkness from 5 p.m. to 8 a.m. each day from early October until the bracts show good color usually around early December. (Most poinsettia varieties require 8 to 10 weeks of short days to flower.)

Contrary to popular belief, the poinsettia is not poisonous. However, it is not intended for human or animal consumption. Individuals are still advised to keep from the wound. Some individuals may develop a skin irritation if the milky sap comes in

contact with their skin.

## Christmas Cactus

Holiday cactus is a more accurate name as a plant purchased during the holidays may be a Christmas cactus (*Schlumbergera bridgesii*), a Thanksgiving cactus (*Schlumbergera truncate*), or a hybrid. Christmas and Thanksgiving cacti are similar in appearance. However, the stem segments on the Christmas cactus have scalloped edges, while the stem segments on the Thanksgiving cactus have 2 to 4 pointed teeth along their edges.

*Schlumbergera bridgesii* and *Schlumbergera truncate* are native to the mountainous forests of southeastern Brazil. Holiday cacti are epiphytes. They grow in the crotches of trees and derive water and nutrition from rains, decaying organic matter, and filtered sunlight.

The stems of holiday cacti are composed of flattened stem segments or phylloclades. The leaf-like phylloclades carry on photosynthesis for the plant.

Day length and temperature control of the flowering of both the *Schlumbergera* species. Like the poinsettia, holiday cacti are short-day plants. Plants will not bloom properly if exposed to artificial light at night. Flowers may also fail to develop if the plant is exposed to temperature above 70 degrees F. Night temperatures of 60 to 65 degrees F with slightly warmer daytime temperatures are ideal for flower formation.

## Mistletoe

Mistletoe is a semi-parasitic plant with small, leathery leaves and small, white berries. Mistletoe plants manufacture their own food, but must obtain water and minerals from the host plant.

American mistletoe (*Phoradendron serotinum*) can be found growing in deciduous trees from New Jersey and southern Indiana southward to Florida and Texas. It is the state flower of Oklahoma. Mistletoe sold during the holiday season is gathered in the wild. Most mistletoe is harvested in Oklahoma and Texas.

Mistletoe fruit is poisonous. For safety reasons, most companies have replaced the fruit with artificial plastic berries.

The scientific name *Phoradendron* is derived from Greek and literally means "thief of the tree."

As you gaze upon the poinsettia, Christmas cactus, and mistletoe this holiday season, enjoy the beauty and traditions of these holiday plants. However, don't forget some of the interesting facts about these unique plants.

*This article was published originally on 12/9/2009 in ISU Entomology/Horticulture and Home Pest News*

## This n That

### It's Time to Pay CCMGA Dues for 2011

To maintain your current CCMG status, send check for \$18.00 to:  
**Judy Ewoldsen, Treasurer**  
 1540 Ford Lane  
 Lucas, TX 75002

### Find Out What's It's All About



The Garden Show **green gardening**

*presented by the Collin County Master Gardeners*

March 26-27, 2011 at Myers Park & Event Center in McKinney, TX  
[www.ccmgatx.org/theGardenShow/](http://www.ccmgatx.org/theGardenShow/)

### Looking For A Few Good Containers

#### Plant Sale, 2011

The Plant Sale Committee is requesting donations of unwanted containers for our plant sale next year. Collect them as we head toward one of our favorite fundraisers. Primarily



we use the 14" to 16" containers in a lightweight material. We can't use heavy pots. If you have containers that are in decent shape (no cracks) and you are simply tired of or some that are in the way, consider donating them to us. You can bring them to the next meeting or keep them until the early spring. If you see some on

clearance in the retail market or elsewhere, send an email to Renee Ferguson at [rennybird@dfwair.net](mailto:rennybird@dfwair.net). And don't forget garage sales or moving sales. They are a great place to pick some up!



## Garden Checklist for November/December

By Dr. William C. Welch, Professor & Landscape Horticulturist, Texas A&M University, College Station, TX. The following information was compiled from the 2009 updates available at <http://aggie-horticulture.tamu.edu/extension/newsletters/hortupdate/>.

- As soon as the November weather appears to be settled, it is time to select and plant such annuals as pansies, violas, and ornamental cabbages and kale.
- Plan now for your spring flowering season with a mixture of annuals and perennials.
- Don't get in a hurry to prune woody plants. Late December through February is usually the best time to prune them.
- Place orders for seeds this month so you will have them available when you are ready to plant. By ordering early, you will be more certain of getting the varieties you want. In addition to ordering seeds that you are already familiar with, try a few new kinds each year to broaden your garden contents.
- November through February is a good time to plant trees and shrubs. In the Panhandle, planting is often delayed until February or early March.
- Bring in late-blooming plants such as decorative kalanchoes or Christmas cactus so they may finish flowering in the warmth of the house.
- Reduce the fertilization of indoor plants from late October to mid-March. An exception would be plants in an atrium or a well lighted window.
- Drain gasoline from power tools and run the engine until fuel in the carburetor is used up.
- Drain and store garden hoses and watering equipment in a readily accessible location. The lawn and plants may need water during a prolonged dry spell.
- Continue to set out cool-season bedding plants, such as pansies, violas, stock, snapdragons, and dianthus.
- Prepare beds and individual holes for rose planting in January and February. Use composted manure, pine bark, and similar materials mixed with existing soil.
- Use good pruning practices when selecting Christmas greenery from landscape plants. Don't destroy the natural form and beauty of the plant.
- Protect your lawn from excessive winter damage by providing irrigation during dry periods.
- Plant spring-flowering bulbs if you haven't already done so. Be sure to refrigerate tulips and hyacinths for 6-8 weeks prior to planting.
- Prolong the life of holiday-season gift plants by providing proper care. Check to see if the pot wrap has plugged up the bottom drainage. Don't overwater. Keep out of drafts from heating vents and opening doorways. Fertilizer is seldom needed the first few months.
- Take advantage of good weather to prepare garden beds for spring planting. Work in any needed organic matter, and have beds ready to plant when needed.
- Don't forget tulip and hyacinth bulbs in the refrigerator. They can be planted any time in December if they have received 60 or more days of chilling.
- Want to start cuttings of your favorite Christmas cactus? As soon as it has finished blooming, select a cutting with 4 or 5 joints, break or cut it off, and insert the basal end into a pot of moderately moist soil. Place it on a windowsill or other brightly lit area. The cuttings should be rooted within 3 to 4 weeks.
- Don't spare the pruning shears when transplanting bare-rooted woody plants. Cut the tops back at least one-third to one-half, to compensate for the roots lost when digging the plant.
- Take advantage of bad weather and holiday time to study seed and nursery catalogues as well as good gardening books.
- Berrying plants, such as holly and yaupon, may be pruned now while they can be enjoyed as cut material inside the house.



**Thanks to ECHO Newsletter contributors:**

Kathleen Brooks  
Greg Church  
Mary Ann Hicken  
Mary Nell Jackson  
Janet Kirklen  
Mary Means  
Katherine Ponder  
Dr. William C. Welch  
John Worley

The submission deadline for the January/  
February issue of the ECHO Newsletter is  
December 10, 2010. Send submissions, com-  
ments and suggestions to:

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