

# Old Texas Rose

VOL 24, FALL 2014

**Greetings Fellow Rose Rustlers ---**

**Message from the Chair - AUDREY McMURRAY**

I'm so happy to be back in the Rustlers! When I returned, after being away for awhile to take care of my mother, I had no idea I would soon be back on the board. But here I am and I thank you for your vote of confidence. The line-up of board members is again super - good workers and good friends with good ideas. We're going to continue to have the wonderful programs you've enjoyed in the past with such a crew at the helm.

On a personal note, many thanks to Becky Smith, Kathy Hyatt, and all of you who helped me get back in the swing of things. After Mom passed, there was a void to fill and your friendship did just that. I consider you and the Rustlers part of my family.

And with so many family members, there are bound to be wonderful ideas for us to consider. Do you think there is a better way for us to do something? How about a venue or speaker you think would be perfect for our Spring Symposium or our Fall Cutting Exchange? If so, let us know! Our new Program Chairman, Gladys Cronquist, would love to hear from you. Email her at [gacron@hotmail.com](mailto:gacron@hotmail.com).

You can always email me as well, at [audreymcmurray.trr@gmail.com](mailto:audreymcmurray.trr@gmail.com) or via the TRR website.

Audrey

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## **Dues Reminder**

**Dues are due by August 1. If you haven't sent them in yet, please do so. Send them to:**

**Texas Rose Rustlers  
C/o Arnold Knoche  
1602 Quarterpath Dr.  
Richmond, TX 77406**



## IDENTIFYING CROWN GALL DISEASE

by Gaye Hammond, Master Rosarian  
Houston Rose Society, [gayeh@LPM-triallaw.com](mailto:gayeh@LPM-triallaw.com)

Crown gall is the only serious bacterial disease that affects roses. It is found worldwide attacking some 140 plant genera in 60 different families, including *rosa*. Crown gall is caused by the bacteria, *Agrobacterium tumefaciens*, which is found in most agricultural soils. Simply stated, crown gall reduces the productive life of plants.



Crown gall on crape myrtle tree

Trees and woody ornamentals seem to be the plant groups most affected by crown gall. Target plants in Texas include apple, blackberry, euonymus, fig, grape, peach, pecan, pear, pyracantha, rose and willow. At my country home in Navasota, Texas crown gall infected a crape myrtle tree estimated to be 100 years old.

Also known as crown knot, root knot, root gall, or simply “gall”, crown gall is a tumor-forming disease. It is much like tumors in mammals, although there is no relationship between crown gall and animal cancers. It is a disease that has been extensively studied by scientists in their search to understand cancerous growths.

Once crown gall is identified, the plant may live many years but could become a distribution center for the bacteria if action is not taken.

**Symptoms.** In roses, tumor-like growths can occur at the soil level (crown), bud union or on the roots. Growths are circular with a rough exterior. Young galls are light colored (usually light green or white), smooth and soft. Older galls become brown or black, hard and woody and eventually crack, decay and slough off. Secondary tumors may develop in the same place the following year.



When cutting into a gall, a callus-type tissue is found all the way through the tumor.

Single gall formation on central stem courtesy of Baldo Villegas

Crown gall has the greatest adverse effect on young plants, which may become stunted, fail to

produce healthy leaves and exhibit a rapid decline in vigor.

Small galls require careful diagnosis because they can be confused with something else (e.g. aerial burr knot, wound calluses, or galls induced by insects, fungi or nematodes). For example, in the South galls found in live oak trees are caused by the gall wasp. Unlike crown gall, the presence of these other galls is usually not serious.

For this reason correct identification ~~before~~ taking action is critical.

A consulting rosarian can help correctly identify crown gall in roses. (See [www.houstonrose.org](http://www.houstonrose.org) for a list of consulting rosarians).



**Crown gall girdling a rose**  
courtesy of Baldo Villegas

**Disease Process.** The disease-causing bacteria can only get into the plant through fresh wounds (less than 24 hours old). No wound = no crown gall.

*Agrobacterium tumefaciens* is drawn to wounds in the plant like metal to a magnet. A wounded plant sends out chemical signals that the bacteria detects and move toward. Once the bacterium enters the fresh wound it attaches itself to injured plant's cells. The bacterium causes the cell to create unusually large amounts of plant hormone leading to tumor formation.

While galls can appear within weeks of infection, latent infections have developed into galls as late as 3 growing seasons from exposure. Galls are a nutrient-rich environment for further bacterial growth.

With age, galls become more woody and barked and can eventually girdle a stem. As galls grow the exterior surface cracks releasing the bacteria which falls to the soil surface.

The pathogen is then disseminated by splashing rain, irrigation, pruning tools, root-chewing insects (nematodes, grubs, etc.) and propagation.

**Galls on Southern Live Oak leaves caused by a gall wasp.** This is not the same as crown gall

Cracks form on the gall exterior releasing bacteria back into the garden



Tumor development tends to start 2 to 4 weeks after infection at temperatures above 68° F. Below 50° gall development stops, above 92° it slows dramatically.

As galls grow, plants often become stunted, weak and may eventually die because galls interfere with the movement of water and nutrients between roots and leaves.

As galls expand in size, they crush plant tissue – constricting the flow of water to the upper parts of the plant by as much as 60%. Plants become stunted and leaves may become undersized. Infected plants become more vulnerable to environmental stresses such as winter injury, heat, and drought.

Plants heavily infected with galls eventually fail to respond to fertilization

**Crown Gall and the Nursery Industry.** Wounding opens the door for crown gall bacteria to enter the plant. These wounds occur during grafting, pruning, planting and cultivation. Opportunities for wounding happen in the production, harvesting and processing of grafted roses – where the potential for wounding occurs throughout the production process.

In field-growing operations, cultivating practices including mowing and disking for weed removal, can create wounds, opening the plant's door for the bacteria to enter.

According to Mark Chamblee of Chamblee's Rose Nursery in Tyler, "Crown gall is not seen in greenhouse-grown own-root roses as much as field grown roses because there are fewer opportunities for wounding to occur."

Because crown gall bacteria can be spread on tools used to make grafts and pruning, large losses can occur in nurseries, where entire infected plantings may have to be destroyed.

Prevention starts with clean, careful propagation methods. Grafting knives should be sterilized frequently with alcohol to kill bacteria and new grafts wrapped to reduce the risk of infection.

Production facilities often soak and clean propagation areas with bleach solution to kill any bacteria that may be present on propagation surfaces and equipment. Cuttings taken from infected plants may also develop galls.

Crown gall can also be spread by infected nursery stock from uncertified sources. Secondary spread then occurs through pruning at the retail level, particularly when galls are removed with the same cutting tools used for pruning.

In grafted roses, research done by the National Institute of Agricultural Research in France indicates that rootstocks Dr. Huey and *r. multiflora* were the rootstocks most resistant to crown gall bacteria.

**The important Role of Site Selection.** Researchers at the University of Delaware found crown gall to be more prevalent in heavy soils and soils where water stands for a day or so.

In agricultural settings, crown gall has appeared on budded apple trees planted in fields where grape, peach and rose crops had seen heavy infection in prior years.

Crown gall is not as common in acidic soils leading some to believe that soil pH could play a role in limiting the disease.

The planting site should be one with well-drained soil. Heavy clay soils should be tilled prior to planting with the addition of 3 inches of aged compost.

**Field Management.** The only useful method of treating soil for the crown gall pathogen is with heat.

Soil solarization has been effective in sandy loam soils by placing a thin plastic film over moist soil to capture energy from the sun and heat the soil to kill the pathogens, although temperatures must reach 140° for 1 hour or 160° for 30 minutes to achieve control.

Solarization of heavy clay soils has not provided consistent results and its efficacy is questionable.

Soil solarization is probably not practical for the home gardener.

The University of California-Davis has tested various products that fumigate the soil; however they determined that while fumigation of the soil reduced the population of bacteria it did not control the disease.

**Control in the Home Garden.** There is no known cure for crown gall disease. The best control is prevention.

Dig up and destroy heavily infected plants removing as much of the root system as possible. Do not compost infected plants.

Where only a few galls are present above ground, cut off and destroy the stems on which the tumors occur. Disinfect pruning shears between cuts with a solution of 1/4<sup>th</sup> cup of household bleach mixed with 2 1/4 cups of water. The University of Kentucky also recommends disinfection using solutions of 70% alcohol to 30% water; or, 70% Lysol to 30% water.

Avoid wounding of any kind, especially wounds that occur during transplanting. Control soil-borne chewing insects (e.g. grubs) by treating those with a soil insecticide. Do not purchase plants that have suspicious swellings or visible galls.

Plant grafted and budded roses such that the graft/bud is well above the soil line.

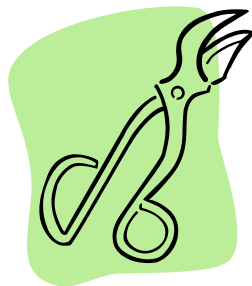
Some recommend protecting bare-root grafted roses from crown gall infection during planting by dipping the roots of the bare root plants or drenching the potted plants with the biological control, *Agrobacterium radiobacter* K84 or K1026.

These beneficial bacteria produce an antibiotic that protects and occupies wound sites keeping crown gall bacteria from getting into the plant. K84 and K1026 are contained in products sold under the trade names NoGall™, Galltrol-A®, and Gallex®.

These products are only effective if applied within 24 hours of the plant being wounded. If the bare root grafted plant is already infected with crown gall, treatment with K84 and K1026 will be ineffective. **There are no registered chemical treatments that effectively control crown gall in infected plants currently available in the United States.**

**Conclusion.** Thankfully, most gardeners will never see an outbreak of crown gall in their rose gardens. "This is one of those garden diseases that comes in cycles....we see it, it goes away for years, and then surfaces for a brief period," explains Chamblee. What Mark says makes sense. Over the last 15 years and in visiting hundreds of gardens across the country, I have only seen crown gall one time.

By being aware of the symptoms and following a few simple precautions gardeners can vastly reduce the risk of an outbreak of crown gall in the garden.



## 2014 Fall Cutting Exchange Gladys Cronquist

Brookwood Community  
1752 FM 1489  
Brookshire, TX 77423

September 27, 2014 10am to dinnertime

We hope you will be able to join us for our 2014 Fall Cutting Exchange at Brookwood, a loving community of adults with special needs. It is a place where persons of varying abilities can receive educational, vocational, and spiritual guidance. Citizens get job training in various fields and as you will see, the results of those who learn the nursery trade are quite impressive!

We will meet out back, by the greenhouses, to share our cuttings and lotto plants. If you are new to this, you do not have to bring any cuttings or plants unless you have extras of something you would like to share. For information on how to cut and bag cuttings, or if you have a particular rose you would like to request cuttings of, check out Molly Buenroostro's

articles in this newsletter. They are also posted on our website: [www.texasroserustlers.com](http://www.texasroserustlers.com).

Here is a list of items to bring so you can take cuttings home: a box of 1 gallon Ziploc bags, a roll of paper towels, a permanent marker, a pair of snippers, a cooler, and a bottle of water. We promise you won't go home empty handed! If you would like one of us to show you how to root the cuttings you take home, just ask.

After the cutting exchange, we will have lunch, so byo lawn chair and brown bag it, or you can pick up your pre-ordered boxed lunch from the cafe in the main building. To place your order please email me at [gacron@hotmail.com](mailto:gacron@hotmail.com) or leave a message at 832-978-7475, with your name and selection by September 19th. Johnathan, the cafe manager, said to be sure and mention the fruit salad is not your standard chopped fruit. He uses his own recipe and says it is really yummy. After lunch we will have our lotto, a tour of Brookwood's greenhouses, visit the retail nursery, Of course, the day will end with dinner in a nearby Mexican restaurant. Maps will be provided at the cutting exchange.

We hope to see you there!

#### Menu

##### SANDWICH BOX LUNCHES

Box lunches include home-made potato chips,  
White chocolate & walnut tuxedo brownie and a dill pickle spear.

Add Rosemary Pasta or Fruit Cup for \$2, or both for \$3

**Texas Gold Sandwich.....10.00**

Grilled chicken, brie cheese, and Brookwood's Texas Gold (candied jalapenos) pressed between ciabatta bread & grilled.

**Smoked Turkey & Avocado Club.....10.00**

Smoked turkey, lemon aioli, Havarti cheese, apple smoked bacon, avocado, roasted tomato & baby arugula on a toasted jalapeno cheese bread,

**Chicken Salad Sandwich.....9.00**

Made fresh and served on your choice of croissant, homemade white or wheat bread.

**Frenchy's Favorite.....9.00**

Sourdough bread sliced and toasted, filled with shaved ham, apricot jam, gruyere cheese, pickled red onion relish and Bibb lettuce.

**Portobello Pesto.....10.00**

Grilled portabella with fresh mozzarella, caramelized onions, marinated tomatoes and roasted red peppers with a cilantro pecan pesto.

#### ROSE CUTTINGS REQUESTED

This year, we are attempting to provide our members with cuttings of roses that they are specifically looking for in order to expand their collection of roses in their gardens. At our Summer Meeting, we provided a cuttings request form to all attendees and I have comprised a list of rose cuttings that have been requested up to this date. Of course, there is plenty of time for members to continue to request special rose cuttings before our Brookwood Event on September 27.

You may email your completed list to me (Molly) at:

ameliaannb@yahoo.com

OR

Mail your completed form (or just a list) to me at:

Texas Rose Rustlers

C/o Molly Buenrostro

20311 Courageous Dr

Hockley, TX 77447

**Note:** Although we are making an effort to receive and offer particular rose cuttings, our cuttings exchange will include any rose cuttings members wish to bring!

Altissimo	Gary Davis
Baron Girod de L'Ain	Arnold Knoche
Basyses Blueberry	Molly Buenrostro
BMR Emmie Gray	Conrad Tips
Climbing Pinkie	Gary Davis
Crimson Glory	Audrey McMurray
Devoniensis	Audrey McMurray
Dortmond	Gary Davis
Felicia	Molly Buenrostro
Francis Dubreuil	Arnold Knoche
Francis Dubreuil	Audrey McMurray
Francis Dubreuil	Molly Buenrostro
G. Nabonnand	Molly Buenrostro
Grandma's Yellow	Gary Davis
Hansa	Gary Davis
Jaune Desprez	Conrad Tips
Joyce Barden	Audrey McMurray
Kathleen	Conrad Tips
Kathleen (Hybrid Musk)	Molly Buenrostro
Lady Hillington	Conrad Tips
LaReine	Molly Buenrostro
Maman Cochet	Arnold Knoche
Maman Cochet	Conrad Tips
Mrs. B.R. Cant	Gary Davis
Mrs. Bosanquet	Conrad Tips
Niles Cochet	Conrad Tips
Oshun	Audrey McMurray
Othello	Audrey McMurray
Paul Neyron	Gary Davis
Perle D'Or	Arnold Knoche
Pink Gruss an Aachan	Molly Buenrostro

Reine des Violettes	Gary Davis
Rosette DeLizy	Molly Buenrostro
Sally Holmes	Molly Buenrostro
Sea Foam	Gary Davis
Sophie's Perpetual	Audrey McMurray
Souv. de Pierre Notting	Conrad Tips
Veilchenblau	Gary Davis
White Maman Cochet	Conrad Tips

## ROSE CUTTING PREPARATION

Take cuttings that are no longer than the width of a gallon baggie. If possible, make a slanted cut on the bottom and a straight cut at the top, to ensure that the recipient knows which end to root.

Try to make the bottom cut between leaf nodes, so the recipient can make a fresh cut if necessary. Remove a few of the lower sets of leaves.

*If possible, take your cuttings in the morning when the stems are turgid and soak them in water, completely submerged, before you wrap them.*

Bundle the cuttings up, and wrap the **bottoms** in damp paper towels, Lay the damp paper towel flat, arrange the cuttings on the paper towel about an inch apart, then starting at one end, roll the paper towel up.

Put your bundle of cuttings in bottom of a gallon sized plastic baggie. Roll the baggie up, pressing out any extra air. Zip up the baggie.

Make sure to label the cuttings. Use a waterproof marker to write the name on the baggie.

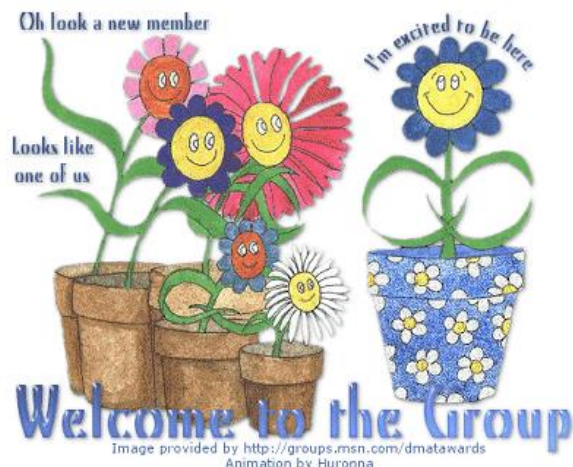
\*\*\*\*When receiving cuttings, pop them in the fridge if you can't deal with them right away.

□

## Welcome New Members:

Nancy Abercrombie, Montgomery  
Norma Diaz, Houston  
Sheri Cunningham, Houston

We look forward to getting to know you and  
your gardening ways!



## SAVE THE DATE

Sept. 27 - Texas Rose Rustler Cutting Exchange

Brookwood Community - 10 a.m.

1752 FM 1489, Brookshire, TX 77423

Oct. 4 - Stephen F. Austin Fall Plant Sale

Nacogdoches - 9:00 a.m.

Website - <http://sfagardens.sfasu.edu>

Oct. 10-11 - 26<sup>th</sup> Annual Southern Garden Symposium and Workshop

Website - <http://www.southerngardenhistory.org/calendar.html>

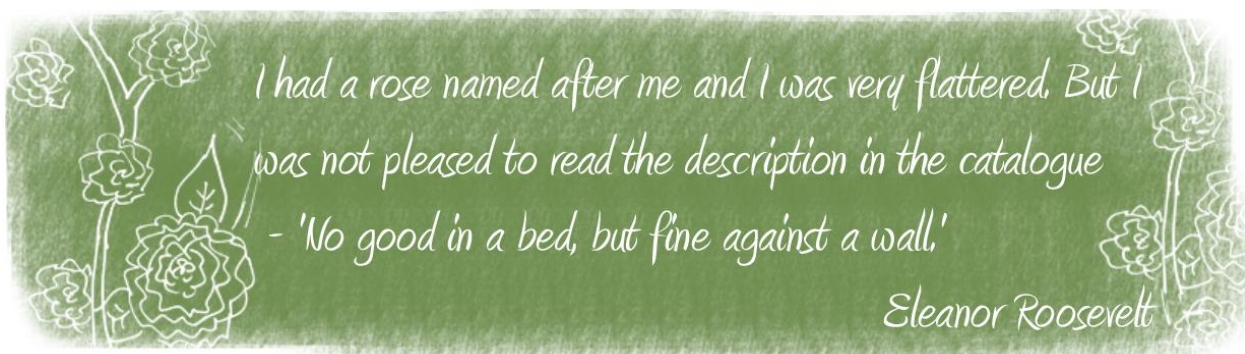
Oct. 31 - Nov. 2 - Antique Rose Emporium Fall Festival of Roses

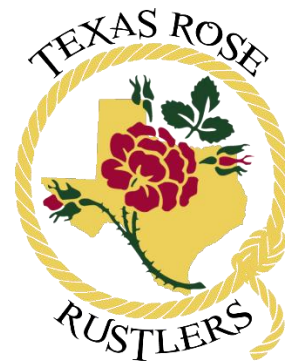
Cutting exchange and rooting demonstration, Oct. 31 @ 10 am

[www.weareroses.com](http://www.weareroses.com)

Nov. 12 - 16 - Heritage Rose Foundation Conference

[www.heritagerosefoundation.org](http://www.heritagerosefoundation.org)





**Texas Rose  
Rustler Board,  
hard at work**



## PHOTOS FROM THE ROOKIE MEETING



Ray Ponton's misting system



Robert Stiba's potting technique.  
more information is available on the website.





TRR member Brenda Buest Smith with Nancy Brahm, Senior Grower at Brookwood.



TRR members Conrad Tips and Brenda Buest Smith with Nancy Brahm, Senior grower at Brookwood.

## Texas Rose Rustler Board Members

Chairman.....	Audrey McMurray
Program Chairman.....	Gladys Cronquist
Historian/Communications.....	Becky Smith
Secretary.....	Conrad Tips
Treasurer/Membership.....	Arnold Knoche
Old Texas Rose Editor.....	Steve Spears
Hospitality.....	Molly and John Buenrostro