

## Crown Gall

by Paul Winski, Harris County Extension Agent, Horticulture

Crown gall is caused by a soil-borne bacterium *Agrobacterium tumefaciens*. Besides roses, crown gall affects many woody ornamental plants, fruit trees and brambles. Once in the soil, the crown gall bacterium can survive for several years in decomposing galls from infected plants. The bacterium gets into the plant through wounds that occur during planting, grafting, pruning or by chewing insects feeding beneath the soil.

Infection by *Agrobacterium tumefaciens* causes the host plant to produce hormones that cause abnormally rapid cell division and enlargement of stem or root tissue. The young gall is light green or white and soft, as it matures, the gall becomes darkened and woody. They vary in size from pea-sized to several inches in diameter. Galls that develop interfere with water and nutrient uptake. As the disease progresses, symptoms will include stunted growth, yellowing foliage and reduced flower production.



Above: Crown gall is often found on the stem at the soil/stem interface.



Right: Crape myrtle (*Lagerstroemia* sp.): Crown gall disease

# Crown Gall, cont.

by Paul Winski, Harris County Extension Agent, Horticulture

## Growers:

- There is no known cure for crown gall.
- Strict sanitation is necessary to prevent the spread of crown gall especially during propagation or grafting.
- Clean and sanitize all production facilities, knives and clippers.
- Proper stock plant management will insure a reliable source of clean stock.

## Landscapers:

- There is no known cure for crown gall.
- If crown gall is found in the landscape, remove the infected plant and as much of the root system as possible. Do not replant with another susceptible species.
- Do not purchase nursery stock that has suspicious swellings or galls on the roots or stems.
- Consider planting other woody ornamentals resistant or immune to crown gall

Table 1. Woody ornamentals resistant or immune to crown gall.

Abelia	Ailanthus	Albizia	Amelanchier	Berberis
Betula	Buxus	<u>Calluna</u>	Carpinus	Catalpa
Catalpa	<u>Cedrus</u>	Cercis	<u>Cladrastis</u>	Cotinus
Cryptomeria	Deutzia	Fagus	Ginkgo	<u>Gymnocladus</u>
Ilex	Kalmia	<u>Koelreuteria</u>	Laburnum	Larix
Leucothoe	<u>Liquidamber</u>	Liriodendron	Magnolia	Mahonia
Nyssa	<u>Picea</u>	Pieris	Pyracantha	Rhus
Sambucus	Sassafras	Tsuga	Zelkova	

- Avoid wounding of any kind especially during planting.
- Biological control of crown gall by a nonpathogenic strain of *Agrobacterium radiobacter* is an option. *A. radiobacter* competes with *A. tumefaciens* both as a soil saprophyte and for attachment to wound sites. Some strains also produce a toxin that is active against strains of *A. tumefaciens*. This agent is available commercially as Galltrol A, Norbac 84C, Nogall or Diegall.



Cross section of a crown gall showing the proliferation of stem tissue.



# Tips for Holiday Plants

by Brandi Keller, Harris County Extension Agent, Horticulture



Holiday plants are bright and cheerful and can last well after the new year with proper care. The list below is true for many holiday plants, but not necessarily all. Check out last year's talk and the coming one in December (links below) to learn more about your favorite plants.

## Do's

- Let dry out between watering.
- Remove plastic sleeves for drainage.
- Buy early in the season for healthier plants.
- Place in a bright location, but not full sun.

## Do not's

- Do not fertilize.
- Do not overwater.
- Avoid placing in dark spots.
- Avoid drafts and temperature extremes.



## *Interesting Reads:*

[The Legends and Traditions of Holiday Plants](#)  
[Evolution of the Poinsettia](#)



## Tips on purchasing holiday plants:



### **Christmas Cactus**

Moving this plant can cause blooms to drop. To reduce this, buy in full bloom and maintain temperature from store to home. Once placed in a sunny location, do not move until after blooming.



### **Rosemary**

Ensure it is not showing evidence of drying out and remove the plastic bag when you get home. Have a plan to plant or pot up outdoors after the holidays as they do not thrive indoors.



### **Poinsettias**

The colorful part of the plant are modified leaves called bracts. The flowers are small and located in the center. Be sure they are closed when purchasing to make the plant last longer.

**Watch "Holiday Plant Care" from last winter [HERE](#).**

**To register for Dec 16th "Making Holiday Plants Last" talk - [Click HERE](#).**

# Caring for Livestock During the Winter Months

Shannon Dietz, Harris County Extension Agent, Ag & Natural Resources

Every winter here in the southeast coastal area of Texas we can usually expect cold and wet conditions...for how long and to what extent, that is always to be determined, however, if you're a rancher, you should always be prepared just as in any seasonal change.

Texas winters are usually mild compared to the rest of the nation, farmers and ranchers still need to adequately prepare for the weather changes to properly care for their livestock and land.

While very few ranchers have barn space for their entire herd, I have listed some important ways to help cattle get through the upcoming wintery weather.

**Protect them from the wind:** Providing shelter from the wind is key to caring for your cattle during the cold. Wind chill can worsen stress on livestock from a cold rain. A well-ventilated building, stack of big bales, woods, brush, and fencerows are all good ideas for windbreaks.



**Minimize the Mud:** Reducing the muddy conditions on your farm will help livestock retain as much body heat possible....if not, its just as cold as rain. Always remember when feeding cattle, rotate your locations to avoid severe muddy conditions. Don't forget the clean water so they don't have to wade through mud.

**Increase the Nutrition:** While a cow typically consumes about 2.5 % of her body weight daily, that may increase to 3.5% in inclement weather. Total energy level required by a cow will certainly increase and good quality hay, cubes or other feed will certainly be needed. Remember, stronger and healthier cows are better conditioned and better producers!



# Caring for Livestock During the Winter Months

Shannon Dietz, Harris County Extension Agent, Ag & Natural Resources



Going into the winter months, take a hard look at your cows and determine what their body condition score index would be. Most ranchers know their herd's condition will expect to lose a little condition during the winter. The body condition score index ranges from 1 to 10, 1 being severely emaciated where you can see the skeletal outline and a 10 means excessive, bulging fat. A moderate rating of 5 means you can see only the last two ribs.

Research and years of experience tells us the ideal condition ranges from a score of 4 up to a 6.

For more information on scoring your cattle and on the importance of knowing your herd please reference the following information from Dr. Joe Pascal, TAMU AgriLife Extension <https://animalscience.tamu.edu/2017/08/08/some-thoughts-on-body-condition-scoring-of-cows/>

# The Home Grown Podcast!

The Home Grown podcast is presented by the Agriculture & Natural Resources (ANR) Unit of the Harris County Texas A&M AgriLife Extension office. The series provides information on urban agriculture / horticulture / gardening and ag literacy. The program focuses on topics that are relevant to the urban gardener.

## Episode #1

In Episode 1 we'll be talking to the Harris County Texas A&M AgriLife Extension Agents: Paul Winski, Brandi Keller and Shannon Dietz.

## Episode #2

A visit with Bill Barr - mentor, friend and plant propagator/plantsman extraordinaire.

## Episode #3

In this episode, Brandi Keller visits with Harris County Master Gardener, William Isbell.

## Episode #4

In this episode, Shannon talks with Janna Roberson, the executive director of Urban Harvest in Houston, TX.

## Episode #5

In this episode, Paul talks with Robert Grove, the general manager of the greenhouse operation at the Brookwood Community in Brookshire, Texas.

## Episode #6

In this episode, Brandi visits with Diana Foss, Urban Biologist for Texas Parks and Wildlife.

## Episode #7

Shannon talks with Deputy Daniel Cline on this episode of the Home Grown Podcast. Deputy Cline is with the Harris County Sheriff's Office starting out as a patrolman and now currently working the livestock division.

## How do you access the podcast?

Click on the image below or go to <https://www.buzzsprout.com/1791415>. You can also search "Home Grown" where ever you find your podcasts.



Harris County  
Extension Agents  
Horticulture  
Paul Winski  
Brandi Keller  
Ag/Natural Resources  
Shannon Dietz



There's still time to register for our last  
couple of lectures in 2021

TEXAS A&M AGRILIFE EXTENSION  
HARRIS COUNTY

# HOME GROWN LECTURE SERIES

OCT - NOV - DEC  
2021

ALL LECTURES ONLINE

REGISTER AT:  
[HOMEGROWN2021Q4.  
EVENTBRITE.COM](https://www.eventbrite.com/e/homegrown2021q4)

## CREATING A COMBINATION PLANTER

Paul Winski - Texas A&M AgriLife County Extension  
Agent-Horticulture

October 7, 2021 - 10:00 a.m.

## SAUSAGE MAKING 101

Shannon Dietz - Texas A&M AgriLife County  
Extension Agent-Agriculture & Natural  
Resources

October 21, 2021 - 10:00 a.m.

## CITRUS TREES FOR YOUR LANDSCAPE

Brandi Keller - Texas A&M AgriLife County Extension  
Agent-Horticulture

November 4, 2021 - 10:00 a.m.

## RAINWATER HARVESTING

Teresa See - Harris County Master  
Gardener

November 18, 2021 - 10:00 a.m.

## SO YOU WANT TO BE A RANCHER?

Shannon Dietz - Texas A&M AgriLife County  
Extension Agent-Agriculture & Natural  
Resources

December 2, 2021 - 10:00 a.m.

## MAKING HOLIDAY PLANTS LAST

Brandi Keller - Texas A&M AgriLife County  
Extension Agent-Horticulture

December 16, 2021 - 10:00 a.m.

TEXAS A&M  
AGRILIFE  
EXTENSION



THE MEMBERS OF TEXAS A&M AGRILIFE WILL PROVIDE EQUAL OPPORTUNITIES IN PROGRAMS AND ACTIVITIES, EDUCATION, AND EMPLOYMENT TO ALL PERSONS REGARDLESS OF RACE, COLOR, SEX, RELIGION, NATIONAL ORIGIN, AGE, DISABILITY, GENETIC INFORMATION, VETERAN STATUS, SEXUAL ORIENTATION OR GENDER IDENTITY AND WILL STRIVE TO ACHIEVE FULL AND EQUAL EMPLOYMENT OPPORTUNITY THROUGHOUT TEXAS A&M AGRILIFE..

# 2022 HOME GROWN LECTURE SERIES

Lectures will be on the first Thursday of each month and include live demonstrations. Register now so you don't miss one!

## Winter

### STARTING PLANTS FROM SEEDS

Paul Winski - Texas A&M AgriLife Harris County Extension Agent-Horticulture

January 6, 2022 - 10:00 a.m.

### BASIC GRAFTING TECHNIQUES

Shannon Dietz - Texas A&M AgriLife Harris County Extension Agent-Agriculture and Natural Resources

February 3, 2022 - 10:00 a.m.

### TOMATOES FOR THE PATIO

Brandi Keller - Texas A&M AgriLife County Extension Agent-Horticulture

March 3, 2022 - 10:00 a.m.

## Summer

### IDENTIFYING PEST & DISEASE ISSUES IN THE GARDEN

Paul Winski - Texas A&M AgriLife Harris County Extension Agent-Horticulture

July 7, 2022 - 10:00 a.m.

### SAFETY IN THE HOME GARDEN

Shannon Dietz - Texas A&M AgriLife Harris County Extension Agent-Agriculture and Natural Resources

August 4, 2022 - 10:00 a.m.

### ALL ABOUT MINT

Brandi Keller - Texas A&M AgriLife County Extension Agent-Horticulture

September 1, 2022 - 10:00 a.m.

## Spring

### STARTING PLANTS FROM CUTTINGS

Paul Winski - Texas A&M AgriLife Harris County Extension Agent-Horticulture

April 7, 2022 - 10:00 a.m.

### HOME BUTCHER: MAKING BOUDIN

Shannon Dietz - Texas A&M AgriLife Harris County Extension Agent-Agriculture and Natural Resources

May 5, 2022 - 10:00 a.m.

### 10 REASONS FOR YELLOWING LEAVES

Brandi Keller - Texas A&M AgriLife County Extension Agent-Horticulture

June 2, 2022 - 10:00 a.m.

## Fall

### PROPER PRUNING IN THE LANDSCAPE

Paul Winski - Texas A&M AgriLife Harris County Extension Agent-Horticulture

October 6, 2022 - 10:00 a.m.

### HOLIDAY MEATS - NOT JUST TURKEY!

Shannon Dietz - Texas A&M AgriLife Harris County Extension Agent-Agriculture and Natural Resources

November 3, 2022 - 10:00 a.m.

### PLANTABLE CHRISTMAS TREE ALTERNATIVES

Brandi Keller - Texas A&M AgriLife County Extension Agent-Horticulture

December 1, 2022 - 10:00 a.m.

## Registration

TEXAS A&M  
AGRI LIFE  
EXTENSION

[homegrown2022.eventbrite.com](https://homegrown2022.eventbrite.com)





# Harris County ANR Annual Vegetation Management Conference

**FRIDAY, JANUARY 14, 2022**

**8:00am - 3:00pm** (*Light breakfast & Lunch included*)

**Baytown Community Center  
2407 Market Street  
Baytown, TX 77520**



**Each location will offer 5 CEU credits (\*Pending TDA approval)**

**Check-In Time: 8:00 AM - 9:00 AM**

**Classes start promptly at 9:00 AM**

**Early Bird registration begins on December 11th  
with a reduced price of \$50.**

**Regular registration price of \$60 begins on December 26th.**

**Click here to register at  
<https://vegmanagementconf-baytown2022.eventbrite.com/>**

# **Harris County ANR Annual Vegetation Management Conference**

**WEDNESDAY, JANUARY 19, 2022**

**8:00am - 3:00pm (*Light Breakfast & Lunch included*)**

**Harris County Precinct 4  
Tomball Service Center  
14444 Holderrieth Rd  
TOMBALL, TX 77377**



**Each location will offer 5 CEU credits (\*Pending TDA approval)**

**Check-In Time: 8:00 AM - 9:00 AM**

**Classes start promptly at 9:00 AM**

**Early bird registration will begin on December 11th with a reduced price of \$50.**

**Regular registration price of \$60 begins on December 26th.**

**Click here to register at  
<https://vegmanagementconf-houston2022.eventbrite.com>**



# Contact Us

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## Social Media/Websites

Harris County Horticulture Facebook

Horticulture YouTube Channel

Harris County Master Gardeners Facebook

Harris County Ag & Natural Resources Facebook

Harris County AgriLife Website

If you would like to **unsubscribe** from the Home Grown newsletter, please email Susan Hubert at [susan.hubert@ag.tamu.edu](mailto:susan.hubert@ag.tamu.edu)



*The members of Texas A&M AgriLife will provide equal opportunities in programs and activities, education, and employment to all persons regardless of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation or gender identity and will strive to achieve full and equal employment opportunity throughout Texas A&M AgriLife. Individuals with disabilities who require an auxiliary aid, service, or accommodation in order to participate in this meeting are encouraged to contact the County Extension Office prior to the meeting to determine how reasonable accommodations can be made.*