

# Williamson County Master Gardener *Journal*

**Award Winning**

Master Gardener's At Work

**Fall is Coming!**

## CONTENTS

2

**NEWS AND NOTES**

4

**GREENHOUSE**

5

**DRIP IRRIGATION**

7

**BOB'S BLOG**

11

**NEW MG**

14

**ALONG THE TRAILS**

15

**BACK TO BASICS**

19

**BUG OF THE MONTH**

23

**MEET A MG**

26

**GREEN CABBAGE**

28

**FROM THE PRESIDENT**

32

**2008 ASSOCIATION**

**OFFICERS**



Fall is coming and remember, **Fall is For Planting!** We are so incredibly lucky here that we really have two growing seasons and the best time to plant is the Fall. So get out there and plant. Giuseppe Arcimboldo ~ Autumn, 1573, oil on canvas, Musee du Louvre, Paris.

### Join Us September 14th for our Monthly Meeting

September – Sally Todd and the Rainwater Harvesting Team are planning a demonstration that will allow members to build their own rain barrels to take home with them. We are working with the Board on finances and hope to make the finished product available to each member for the cost of materials or less.



Master Gardeners at Work

# News and Notes

## Congratulations!

We have lots of people to congratulate this month! Marie Camp, Carey Thornell, Christine Davis (pictured left to right below), Kim Dunagan, Tina Bertucci,, and Tommy Wray (right) from several different classes have finished all their requirements and are now a certified Master Gardeners. Well done, all of you!



### Just in!

#### Master Gardener Specialist - Greenhouse Management

October 28-30 Ft. Worth, TX

In an effort to provide training, the MG Specialist - Greenhouse Management training was created as a hands-on, intensive multi-day training that will empower MG's with knowledge and skills required to effectively support and multiply Texas AgriLife Extension efforts in educational programs. The class is divided into separate tracks, commercial and hobby greenhouse for more specialized situations. Texas MG's who fulfill specified training and volunteer requirements will be recognized as a MG Specialist in the specific field of Greenhouse Management. This certification does not empower the individual with supervisory or administrative authority within his/her local county programs. Registration fee: \$150.00 (Includes dinner (2), lunch (1), snacks, drinks, Greenhouse Management equipment, Power Point CD and resource materials distributed during course). • Transportation and lodging is on your own. • Course is limited to the first 40 applications to send check and application. • A maximum of 2 Master Gardeners from each county.

#### Rainwater Specialist Training

November 13th, and 14th- Concho Valley Master Gardeners- "The Concho Valley MG's will be hosting in Tom Green County (San Angelo) a Rainwater Specialist Training November 13th and 14th. Billy Kniffen has his team rounded up and we are getting ready for a training in West Central Texas, more central located for several MG Chapters to travel less miles.

### September 14, 2009 Meeting Program

The Rainwater Harvesting Team is putting on a rainbarrel building workshop. We will start with a quick demonstration of how the barrels go together and then 30 MGs who signed up online will receive their starter barrels. The RWH Team is planning to set up two circuits of three stations each; one to install the inlet and filter assembly, one to install the spigot at the base of the barrel and a third station to install the overflow assembly. As each group completes each step they will rotate to the next station.

This exercise has been designed to provide MG members with the knowledge to make barrels for their own personal use as well as to qualify them to staff instruction positions when we open the next barrel building event to the general public.

Don't forget to bring your check for \$10 to the meeting made out to the Williamson County Master Gardener Association. Please come having made prior arrangements to transport your barrel home with you. Paul Lawrence

### Berry Springs Needs Volunteers

Ongoing Volunteer hours available at Berry Springs Park & Preserve, 1801 County Road 152, Georgetown. Please contact Susan Blackledge, Park Manager @ 512-930-0040 to coordinate. Mark your calendar for the 5th annual Archeology Day, Sat. Oct. 24th 8a.m-4p.m. here at the park. Volunteers needed for morning,lunch serving, and afternoon shifts. Come join the fun.

**Newcomers to Area Learn About Oak Wilt**

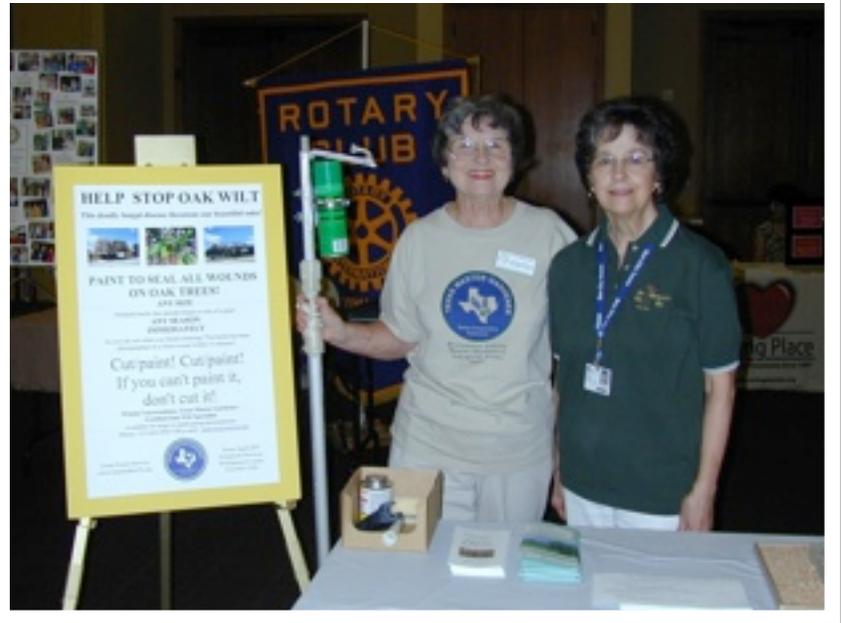
Information about oak wilt is being spread throughout Williamson County by all members of the oak wilt specialists team. Bright and early Wednesday morning, the 19th of August, Kay Myatt and Winola VanArtsdalen secured a table and set up for the Newcomers Meeting at Sun City. Quarterly, this meeting is held for residents new to the city to learn about interest groups and clubs available.

Since Master Gardeners is not a Sun City club, we needed an inside track for an invitation. Got it! You just have to know the right people in high places. Our fellow Master Gardener, Margaret Seals, is president of the Sun City Horticulture Club, so she invited us to share a table with them. Brochures about both oak wilt and master gardeners were available to those interested. It was just

“snatch and grab“ to get attention as people came in to catch their interest and get them to come to the table. It was a most productive morning, as some people from far reaches of the country had never heard of oak wilt and were most appreciative of the information. Even people who live in other parts of Texas did not realize how small the beetle is and thus the size cuts to be sealed, nor did they know this must be done immediately.

Your Master Gardener Oak Wilt Specialists group is energetic and making every effort to serve the community. Members are answering contacts from the county agent's office, actually training people to treat trees, and looking for every opportunity to extend information available to Williamson County residents. We, as master gardeners, are “volunteer educators” for Texas A&M and the Texas Forest Service. If you hear of an event in your community where we could reach more people, please let us know. Get us an invitation, and we'll be there! And, once more, **REMEMBER:**

**Seal all wounds on oak trees immediately, any size, any season!**



**Volunteering Opportunity**

Marlyn Hooper, one of our new student wanted everyone, but especially the new interns, to hear about a wonderful volunteer opportunity. Here is what she has to say. “I just want to give you a heads-up on volunteering. I did my hours at the Berry Springs Park and Preserve. I can't tell you what a fabulous place that is. I had never heard about it. It is truly one of Georgetown's best kept secrets.

The park is almost 300 acres - it is huge! What a treasure it is. It is a history lesson and a recreational dream for the whole family. If you are a hiker, you just landed in Heaven. And, oh yeah, more than 1,200 stately Pecan trees over one hundred years old ... count them! Susan Blackledge, the Park Manager, and Mark Pettigrew are the only employees at the park. They rely totally on volunteers to help them. The work is never-ending and so very fulfilling. I was so tired at the end of my shift, but it was a good tired. The work is physical, mental and spiritual. I felt like I was being a good steward of the land. There is so much work to do and your time out there is so valued. It is best to work in twos - I worked with Mike Harper. He was such a hard worker and we had a great time, talking and sweating! Please give Susan a call, and volunteer at the Berry Springs Park. You will be the one that reaps the rewards of this great work.

**Heads up for Annual Awards Dinner! Save the Date!**

The Williamson County Master Gardeners Association Second Annual Awards dinner will be held this year on Monday, December 14, at 7:00 p.m. in the beautiful Angel Springs Event Center in Leander. The event will again be catered by Bowties 2 Blue Jeans from Round Rock. Please save that date and mark your calendars now.

All members who have reported 100 hours or over by October 20, 2009 (counted from October 20, 2008) will be eligible to receive a long sleeved, blue denim shirt with the WCMGA logo like the ones that were awarded last year. More information will be given (sizes, etc.) about the shirts as time for the event nears.

The important things to remember are:

- you have to report your hours in order to be eligible for an award
- you must have 100 or more volunteer hours to qualify
- the cut off date for awards is October 20, 2009 not January 1, 2010, which is the eligibility cut off date for WCMGA certification.

All WCMGA members, new class interns and their spouses are invited to this event. More information regarding tickets to the event, food choices, etc will be given in October.

Master Gardener Preparation

# Opening of Greenhouse Season 2009–2010

## Winola VanArtsdalen

Beautiful flowers in the bed beside the greenhouse welcomed workers early Wednesday morning, the 12th of August when they came to give the greenhouse its cleaning to begin the 2009-2010 season! Roses, Shrimp plant, Porterweed, Brugmansia, Mexican bush sage, Batface cuphea, Hot lips salvia, Purple Brazilian buttonbush, and Blue mistflower were all blooming their hearts out! Workers were amazed that the plants had survived so well through the extreme heat and drought, but credit must be given to soil preparation and the wise choice of plants.

With a burst of power, the swoosh of Charlie's mighty power washer attacked the accumulation of a year's worth of grime. A lively crew of Master Gardeners representing the founders of WCMGA and all three classes, 2007-2009, descended upon the scum with scrubbing tools of all types to finish the job! Due to an equipment malfunction, there are no pictures of the workers after this deed was done, but it may be just as well. Charlie was heard to comment, "You girls hair looks like heck!" Well, that's close to what he said.

Wednesday's eager workers were Claire Aguirre, Hank Belopavlovich, Bob Brandon, Christina Davis, Charlie and JoAnne Dieterich, Patty Hoenigman, Jeanne Macher Japko, Sandy Lawrence, Wayne Rhoden, and Winola VanArtsdalen. On Thursday, Bob, Wayne, Charlie and Joanne had not had quite enough, so went back and finished the job. Wow! Aren't we lucky to have such dedicated workers! As a result of all this effort, the greenhouse will now be ready to greet you on a schedule to soon be announced.

Photos by Wayne Rhoden.



Master Gardeners Monthly Meeting

# Disappearing Fountains

Paul Lawrence

On August 10, 2009 Christopher Howell talked to our group about Disappearing Fountains. Christopher has been an employee of Hill Country Water Gardens in Cedar Park for the past four years where he works in operations, nursery management and as a company buyer.

Disappearing fountains offer an alternative for those of us who would like to have a water feature, but do not have the time or the inclination to provide the higher degree of maintenance required to keep out the algae.

Christopher encouraged his audience to take an ‘inside the box’ approach to fountain building in order to simplify the process as well as to contain most of the associated maintenance challenges. He went on to demonstrate that their approach started with one of three different sized boxes, each one designed to accommodate progressively larger fountain components. Christopher provided comments on each of the fountain components:

- make sure to install the box with the upper lip slightly above our finished grade
- standard pumps come with 18’ of power cord, a 3-year warranty and use about the same amount of electricity as a 50-watt light bulb
- set the pump with a grate above to support the fountain pot
- if you are going to drill out your own pot for the 1/2” bulkhead connection you will need a relatively expensive 1 1/4” carbide drill bit (for an extra \$10 the company will make this improvement for you)
- connect the discharge tubing from the pump to the bulkhead
- screw the end of the standpipe into the bulkhead and size the discharge for the effect you desire
- place rocks on top of the grate to screen the remaining working components from view
- fill with water and plug in the pump to start the show

Following his fountain assembly demonstration there was an interesting discussion about the feasibility of using solar powered pumps to drive the fountains. In summary, it’s a great idea but the technology is just not there yet to provide a continuous service



pump driven by an affordable solar array. He said his company will be first in line to stock such an item once it hits the market.

Christopher went on to discuss a few dos and don’ts for maintenance consideration

- to protect against algae and calcium buildup you can add a non toxic liquid called Protec Scale and Surface Remover
- use only the inner filter on the pump inlet since most water sources are already pretty well screened
- keep fountain away from roof runoff
- keep an eye on your water levels since you can lose up to 3” of water depth to evaporation during the heat of the summer
- use a non toxic mosquito dunk if you detect any of these pests
- properly used and maintained you should not have to take it apart for a thorough cleaning more than once every year or two

When asked about costs for the unit assembled Christopher told us to allow \$125 for the box kit that includes the grate and the mesh, \$90 for the 350 gallon per hour pump assembly, \$40 for the pot, \$30 for the plumbing assembly and \$15 for the stones to finish off the surface above the grate. As the size of the pot increases so does the size of the pump assembly, box as well as the price.

Since Winola VanArtsdalen did wonderful article on her disappearing fountains with a step by step guide in our June issue of the Williamson County Master Gardeners Journal I have not reproduced a whole lot of pictures here. Take a look at Winola’s article.

**HELP WANTED!**

My thanks go to Grace for writing up the notes on our monthly speaker. I really need a group of volunteers who are prepared to do this task each month. These articles are a great help to those who cannot attend the meeting and are a great resource. So, please let me know if you can help. Christine Powell

### Demonstration Gardens Update

Due to some clarification that needs to be made, the drip system for the demonstration gardens has not yet been installed. Since no planting can take place until this step is accomplished, the Garden Committee has been touring community gardens in Georgetown, and looking at (among other things) the drip systems installed there. One tour was made of Sun City Gardens, a 7 acre site managed by the Sun City Horticulture Club with 265 raised garden beds, and another of Heritage Community Gardens, which contains many garden beds on 18 acres under the direction of Natalie Vreeland. Both trips yielded much useful information. A recent soil test revealed that we need to add phosphorus to the garden soil already in the beds. We have been given all sorts of seeds for fall planting from WCMGA members Bonnie and Leroy Sladek of Taylor. As soon as the weather cools a bit, time will be scheduled in the Greenhouse so that seeds can be started. The Herb Group, under the guidance of Teresa Robinson, has selected which herbs to plant, and they will be sharing this information at a future meeting of the WCMGA membership. The accompanying photo shows a drip system similar to the one that will be installed in the demonstration gardens when the bid has been awarded.

The gardens at the Extension Center have been planted during August with fall season vegetables. One 5' x 20' raised bed is "gridded" for a "modified" square foot garden, with each square measuring 12" x 12". A trellis will be constructed at both ends of this bed for the "climbers". Tomatoes (Celebrity and Juliette), cucumbers (Straight Eight), bush green beans and squash (Jade, Gold & Emerald, Eight Ball and Golden zucchini) were all planted on August 13. At the moment soaker hoses are being used until the drip systems can be installed. Because of space issues,

one 5' x 20' raised bed will be turned over to the Herb subcommittee for planting herbs, instead of the smaller 5' x 10' bed previously planned. A journal will be kept in the Master Gardener room of the Extension Office suites so that data about the plants can be kept. The following information will be added to the journal on each observation: Weather conditions (temperature), Time of day the entry is made in journal, Date of seed germination, Evidence of damage - pests, insects, diseases, etc., Moisture (adjustment of timer, volume of water, etc.), Flowering date, Size of plant & fruit. Days for observation and recording will be Tuesday, Thursday and Saturday.

Future projects include solarizing a small area near the raised beds for in-ground planting of large vegetables, and planting other cool crop vegetables in existing beds as the fall season progresses using plants started in the greenhouse.

Margaret Seals



## From Bob's Blog

*Some Williamson County Master Gardeners may not know that our County Extension Agent, Bob Whitney, has a web log ("blog," sort of an internet diary) at*

<http://theagriculturalist.blogspot.com>  
/ Here are some recent highlights:

Friday, July 31, 2009

### **Trees Don't Die, Do They?**

This statement has really amazed me, "I didn't think my tree would die and since my tree died it must have a contagious disease or insect problem." Well I guess most folks don't consider it strange but considering the severe drought it sure seems like lack of water would be blamed first!

First trees do get old and die. We do hear about trees that are hundreds of years old or even some trees recorded to be thousands of years old but generally speaking trees live less than 50 years with some maybe living to be a hundred years old. In this part of Central Texas we do have a few trees that are really old but most have only been around 50 years or less. Williamson County is essentially two very different ecological areas with the west half being Hill Country and the east being Blackland Prairie. Neither region is noted for having old, old trees mostly because of the shallow soils.

Trees die for a variety of reasons but insects and disease are not normally the primary. We do have a problem with Oak Wilt in some species of oaks but outside that we lose trees mostly because of physiological problems typically caused by the environment. One of the primary reasons is shallow soils. As trees get bigger they need more room both in the top and also in the roots. Shallow soils inhibit root growth and if we can't grow roots we can't grow top. We could also add overcrowding to this problem, too many trees in too small a space. Then along comes a once in a lifetime drought and trees simply fall apart. They were cramped and crowded to begin with and now there is a lack of water to cool the tree, move nutrients and supply plant cells. It is no wonder they die!

Once stressed, trees are then more susceptible to all kinds of insect and disease problems. One of the primary causes of oak tree deaths right now is Hypoxylon Canker which can only affect an oak when it is stressed. But I am also seeing hackberry, elm, pecan, magnolia, and cedar die every day simply because it is too dry.

Now back to the Oak Wilt disease which is a severe problem in all of Williamson County and certainly all of the Hill Country. The Texas AgriLife Extension Service and the Texas Forest Service have conducted numerous programs about Oak Wilt and its treatment for area residents. Recently though we offered an intense one day shortcourse on Oak Wilt for our Master Gardeners to certify them as Master Gardener Oak Wilt specialists. Over the last two months we have been directing call to the Extension office about Oak Wilt to these specialists and the public has had nothing but praise for this team. If you think you have Oak Wilt or just want to know more about it call or send an email to the Williamson County Extension Office and you will soon get a response back.

Sunday, August 9, 2009

### **Pecan Weevil Time Again**

It seems like such a very short time ago that we were dealing with pecan weevil problems and here we are again. Pecan producers are always concerned about pecan nut case-bearer and rightfully so but for those producers that have pecan weevil problems in their orchard no other insect is as destructive.

The pecan weevil lives in the ground for at least two years before it emerges as an adult. The adult can fly but prefers to walk up the tree from the ground and begins finding nuts. The weevil has a long snout that it uses to puncture the pecan and either feed or lay an egg in the hole. This egg hatches out and the grub or larva feeds inside the nut before boring a hole in the shell and dropping to the ground. The hole you see in so many pecans is the result of the weevil leaving the pecan. The female weevil can feed in a pecan in the water stage but she cannot lay an egg in the pecan until the nut has the gel like substance inside. We are currently going from the water stage to the gel stage in many pecans.

Several things have to be together in order for the weevil to be a problem. First, the soil has to be loose enough for the adult pecan weevil to leave the ground. We have had nothing but drought so soils are hard but weevils can emerge through ground cracks. Second, be sure and check the pecans to make sure they are in the right stage of development. If the ground is loose or cracked and the pecans are right then, lastly, make sure you have the pecan weevil. Put out a white cloth under some limbs and then shake the limbs to knock out the weevils. Look for them on the sheet, if you find some then it is time to spray.

There are many sprays for pecan weevil but unfortunately there are no organic sprays. To minimize insecticide use small growers may want to try a trunk spray. Carbaryl, commonly known as Sevin, is an excellent material since it has a very low toxicity and is easily found. Since most yard trees are very big it is really easier for a homeowner to apply Sevin to the trunk instead of the entire tree. Soak the trunk from the ground to breast high and the weevils will walk up the tree and of course contact the poison. The largest portion of weevils do walk up the trunk so this makes for an easy homeowner or small orchard treatment that is generally quite effective.

### **Pecan Weevil Facts You May Not Know:**

The pecan weevil is one of the most destructive pests of pecans. Most people have more problems with it simply because this insect infests nuts we have already taken through the season. There is nothing worse than spending money on a pecan and then seeing an insect eat it and we are right at the time for pecan weevil to be a problem.

Here are just a few facts about pecan weevil you may not know. The death rate in a 2 year cycle for weevil is 66.9-96 percent and for 3 years is 99.6 percent. We lose a lot of pecan weevils before they ever get out of the ground! Males feed on an average of 0.29 nuts per day while females feed on 0.23 nuts per day. We always worry about the number of pecans damaged from feeding but that is very small compared to egg lay in the pecan. Males live on average 21 days while females live 23.8 days. It takes 5 days from ground emergence for a female to start laying eggs. Females lay eggs in an average of 22.7 nuts per female. It

doesn't take too many weevils to mean a lot of damage. For many commercial growers even one weevil is too many. These early emerging weevils can be costly but the late weevils can end up in a sack of saleable pecans which is a real problem.

Monday, August 24, 2009

**Pond Weeds**

This is certainly the time of year that pond weeds are most visible. I usually get a number of calls about all this "junk" on or in our tanks and ponds with the question, "what can I do about it?" Unfortunately there isn't much we can do about it this time of year but maybe an explanation about the categories of pond weeds and some control measures might be helpful.

The first group of pond weeds are algae including plankton which makes the green color in water, filamentous algae or pond scum, and branched algae which includes chara or muskgrass that looks like underwater hay. This is probably the number one problem in tanks and causes the most aggravation. Pond scum usually begins growing near the bottom or edges of a pond and later floats to the surface where it then looks like a mass of wet, green wool. This type algae is best controlled by pond fertilization back in February. Since it

starts at the bottom we can encourage the growth of plankton, which is a good algae, it will shade out the pond scum and keep it from growing. There is nothing worse than a clear pond because plankton is part of the food chain which eventually feeds fish. Chemically we control algae easily with copper or copper complex chemicals.

A second group of weeds are the floating plants. Duckweed is one that we have in abundance in our area and it is a small, floating plant, green in color and about 1/2 inch across with usually 3 leaves and below the leaves you can see a root. Diquat is a good, relatively inexpensive chemical control or you can rake this plant off the surface.

The third group is submersed plants. These plants are rooted to the bottom but generally don't have plant parts above the water surface. The most common submersed weed is bushy pondweed which resembles coastal hay growing underwater. Another similar weed is coontail and it too can fill up a pond in short order. Diquat, endothall and floridone are all chemical controls or you may want to check into stocking your tank with triploid grass carp which do an excellent job of long term control of these problem weeds and do not cause a problem with other fish.

The last category includes our emersed weeds which includes all shoreline, marginal and shallow water plants with plant parts that extending above the water line. These include many species but most commonly we are dealing with cattails, willow, rushes, button-bush, water primrose and frogbit. Most of the emersed weeds are easily controlled with

glyphosate products which we commonly call Roundup although Roundup itself is not labeled for aquatic weed control. There are several name brand products that do contain glyphosate and are labeled for aquatics. Another excellent product for emersed weeds is 2,4-D.

Now the last question I usually get when talking about weed control in ponds is, "will it hurt my fish?" The chemicals themselves are harmless to fish but the dead vegetation they leave behind may not be. A lot of decaying vegetation will suck a lot of oxygen from the water and could leave your fish starving for a breath. It is best to control pond weeds a little at a time so that you don't set yourself up for a problem one morning watching all your fish floating on the surface.

Monday, August 24, 2009

**Extension Weather Station**

We have a new weather station at the Williamson County Extension Office in Georgetown. This new addition will serve as a valuable tool for us in Extension and also for farmers and homeowners in the area. An even more valuable tool is the website [texaset.tamu.edu](http://texaset.tamu.edu), which collects data from this weather station and other stations across the state. By selecting Williamson County on the map and then clicking on Georgetown, the site will give you daily evapotranspiration (inches of water lost from evaporation from the soil and from transpiration from plants), daily maximum and minimum temperatures, relative humidity, solar radiation, rainfall, and wind speeds at 4 am and 4 pm. The website also includes handy tools for calculating irrigation requirements for home lawns, turf and landscapes, and for crops. With each tool, you enter a few factors such as sunlight exposure, turf-grass type, type of crop, etc... and it will give you the water requirements and then you can enter information about your sprinkler system (watering rate in inches/hr) and it will calculate how long and how many times per week to run your sprinkler system.

The website also provides several useful links to other weather, hydrological, and irrigation websites. Again, the website is [texaset.tamu.edu](http://texaset.tamu.edu)



Sandy Lawrence

## Master Gardener Education

## Advanced Training

For the remainder of the year we are planning to tap expertise within the membership with the tentative calendar as follows:

**October** – Ed Myatt will be working with an ad hoc group of volunteers to present a program on Composting and Vermiculture, (worm farming). These are fascinating skills that, once mastered, allow the gardener to reduce their waste stream to the curb while providing their gardens with some high-quality nutrients.

**November** – Grace Bryce will be working with the newly emerging Oak Wilt Team to share their genesis, their training experiences, the evolution of their highly successful public outreach program and their plans for the future and letting others know how they can become involved in fighting the good fight against this devastating infestation to our live oak treasures in Central Texas. Oh yea, we are going to have elections this night as well; it could run a few minutes long.

**December** – We are planning to have our 2nd annual Awards Program and Dinner once again at Angel Springs since we had such positive feedback from last year's experience. Additionally, it was decided that we hire Bow Ties to Blue Jeans to cater the affair. Again, we are indebted to Norma and her family for providing us the use of their lovely facility.

## Advanced Training at the Lady Bird Johnson Wildflower Center

### Native Plant Gardening

Native Plant Gardening Package - Sign up for the Native Plant Gardening package, and receive 10% off of your enrollment! This package is composed of the six Native Plant Gardening courses. The courses in this package must be taken as scheduled and cannot be exchanged for other courses or other course dates. Any and all changes made after enrollment will be subject to a \$10 transaction fee, per person, per individual course. Enrollment in any course outside of this package will be charged at the non-discounted rate.

Courses included in this package: Design (8362), Plants I (8363), Plants II (8364), Installation (8365), Maintenance (8366), and Pests (8367). (6 meetings).

### Sustainable Landscapes

Certificate in Sustainable Landscapes - Sign up for the Fall 2009 Sustainable Landscapes series and receive 10% off of your enrollment! This package is composed of the five Sustainable Landscapes Series courses. Complete all five classes and receive a certificate of merit in Sustainable Landscapes. The courses in this package must be taken as scheduled and cannot be exchanged for other courses or other course dates.

Courses included in this package: Intro (8381), Water (8382), Soil (8383), Plants (8384) and Materials (8385).

Instructor: Heather Venhaus (hvenhaus@wildflower.org)

### SPECIAL TOPICS

#### The Botany of Food Plants

Learn about how the plant world is organized by learning about the plant taxonomy and morphology of food and medicinal plants. We will explore the origins, history, wild ancestry, domestication, and lore of the major groups of food plants. You will meet the local native Texas cousins of these plants and develop an appreciation for grocery store botany. Please bring \$10 to class for handouts and materials.

Instructor: Karen Clary (clarykaren@gmail.com) Number of Meetings: 3 Materials: \$10 lab fee. Enrollment: 10 minimum – 20 maximum

#### Native Plants of Austin

Learn how to identify the native plants in and around Austin. You will learn how to recognize and identify wildflowers and other native plants and learn which plants are edible or useful. In the first meeting, we will learn the basics of plant identification, including how to know what characters to use in plant identification. Then, we'll head out to the field and apply our knowledge. Hiking/walking shoes and outdoor clothing recommended. Expect light to moderate walking with occasional uneven levels. Dress for the weather (sunscreen, hat, water, etc); this class will be held outdoors. Please note this class requires all participants to complete and sign a University Release and Indemnification Agreement before being considered enrolled in the class. See "Waivers" on the sidebar of our website, on the left side of the Informal Classes home page (www.informalclasses.org).

Instructor: Karen Clary (clarykaren@gmail.com) Number of Meetings: 3 Enrollment: 10 minimum – 20 maximum

#### Landscape Design Studio

Building upon the introductory class "Native Plant Gardening: Design" (#8362), this course will allow you to take the principles and skills you acquired and apply them in a studio environment. The majority of class time will be spent drawing while the instructor provides you with

individual assistance throughout the day. After the first class, you will be asked to continue working on your concepts and develop them further for the next meeting. The second class will begin with an informal sharing session to respond to and learn from one another's processes. The rest of the day will again be focused on producing drawings that allow you to investigate your design process in order to have a clearer design when you finish. Required materials: House/Lot/Survey site plan (1/4" scale) or a detailed drawing of your property, architects' scale (3-sided ruler), pencils and erasers.

Instructor: Emily Manderson (emanderson@wildflower.org) Materials: House/Lot/Survey site plan (1/4" scale) or a detailed drawing of your property. Architects scale (3-sided ruler), pencils, erasers. Number of Meetings: 2 Enrollment: 10 minimum – 20 maximum

### **Native Plant Water Gardens**

In this class you'll learn the basics of watering gardening in our Central Texas climate. We'll cover everything from construction and materials to care and maintenance. You'll learn about both the native flora and fauna that make up a healthy aquatic ecosystem, and see how easy and fun it is to incorporate a pond or water feature into your own landscape. Dress for the weather (sunscreen, hat, water, etc); some class time will be spent outdoors. Instructor: Deryn Davidson (ddavidson@wildflower.org) Number of Meetings: 1

Enrollment: 10 minimum – 20 maximum

### **Native Plant Pot-Pourri**

This class will evaluate and select native plant varieties for container-growing compatibility and extended blooming period. Options will be considered for both shade and sunny placement, deer-resistance, butterfly attraction, drip irrigation for no-worry maintenance, and different styles of containers. Learn how to add a brilliant splash of native color to your deck or the most yard-deprived location. Dress for the weather (sunscreen, hat, water, etc); some class time will be spent outdoors.

Instructor: Wendy Redding (wredding@wildflower.org) Number of Meetings: 1 Enrollment: 10 minimum – 20 maximum

### **Native Plant Photography**

Designed for the nature enthusiast with some photography experience, this course is for those interested in improving their ability to skillfully photograph nature in Texas, especially native wildflowers. This class will take place in the field and will emphasize photographing what you find in its natural state. Included are camera techniques for natural photography and creative techniques for artistic expression and ethics of nature photography. Emphasis will be given to special issues related to photographing nature in Texas. Digital image file management will be discussed but not demonstrated. Bring your own camera. Dress for the weather (sunscreen, hat, water, etc); this class will be held outdoors.

Instructor: Joe Marcus (jmarcus@wildflower.org) Materials: Your own camera. Number of Meetings: 1 Enrollment: 10 minimum – 20 maximum

## **Other Training and Volunteer Opportunities**

### ***Hear Wildflower Center Experts Weekly on KLBJ***

Starting September 26, Wildflower Center horticulturists and botanists will give a new dimension to Tom Spencer's gardening hour at 8 a.m. Saturdays on Newsradio 590 KLBJ. The new show, named "The Wildflower Hour," will focus on native plants, green gardening and more with call-in questions welcome. "One thing this drought sure has taught us is the value of gardening with native plants," Spencer said, "so tune in to learn more about how to keep your garden green year round. "And, don't worry, we'll still help you out with the brown patch that's killing your lawn."

### ***Nature Nights on Select Fall Fridays at the Lady Bird Johnson Wildflower Center***

September 18 - Plants and People: From Dyes to jelly, medicine to your daily meal, find out about the benefits and use of native plants in our everyday lives. Program materials available in Spanish.

October 16 - Flight of the Monarch Butterfly: Explore the flight of the monarch butterfly and their fluttery friends at this engaging evening program.

November 13 - Hill Country Astronomy: Look to the stars and discover wonders of the night sky at the Wildflower Center. Take a tour of the evening skies for familiar and mysterious points of light and the wonder they provide.

Contact Flo Oxley if you can help.

### ***Austin Museum Day***

"Thirty Austin Museums – all free, all day. Special Museum Day events, too." September 20th! Why not Volunteer at your favorite museum! What a great way to celebrate!

### ***Fall Grasses Workshop***

Fall is the time of year when most of our native prairie grasses bloom, making them easier to identify. Learn to recognize many of the common grasses of central Texas during a two-day

workshop held at a preserve in eastern Burnet County from 9 a.m. to 1 p.m., on Saturdays Sept. 26 and Oct 3.

This is the fourth year that Bill Reiner will teach the class on fall-blooming grasses. He was a biological technician at Balcones Canyonlands NWR for five years, where he became familiar with most of the more than 90 grass species that have been identified there. He has led grass-identification walks at the refuge and has taught a class on spring-blooming grasses. Currently, Bill is a biologist managing the City of Austin's Balcones Canyonlands Preserve.

The tuition for the workshop is \$50 for TAS members and \$65 for non-members. In addition there is a \$15 supplies fee to be paid at registration. Peaceful Springs will provide notebooks for participants to make their own grass identification guides. To register, contact [Frances Cerbins](#) or phone 372 9039 and the cut off date in September 8th. soon, registration will be cut off Sept 8.

## Master Gardeners Reveal

# Why Master Gardening

Compiled by Christine Powell

Each of the members of the new Williamson County MG class was asked why he or she wanted to join the program. While we don't have enough room in the Newsletter for all their answers, a few excerpts chosen randomly may serve to remind all of us why gardening is such an important activity in our community. (A note for the new class: since these were chosen randomly, don't feel bad if you were left out; it doesn't mean you were unworthy, just unlucky!)

Like many others, Linda Zazula was inspired by a family member: "My gardening experience began as a small child with my grandfather on his Pickle Farm. His love of the land was shared with all of his grandchildren. We learned the basics of plant management, crop production, natural weed abatement, pest control and the joys of our labor."

Similarly, Karen Black "learned to grow potted plants by working with my uncle in his greenhouse. I have worked with my plants in my yard and in my greenhouse ever since [but] I want to learn so much more!"

Judy Gibney writes, "I was raised in a farming community in St. Louis, Missouri. My closest neighbor raised all sorts of veggies and livestock—they made their own clothing and soap." As a teacher, she sees education as the key for the success of her plan "to open a community garden facility within the next several years."

Megan Barron represents a different pattern: "I grew up in a generation of both my parents working so I missed out on learning the basics of gardening, sewing, and cooking the way mothers once taught their daughters. I've read as much as I can on my own, but Texas is such a special zone that I would appreciate the education of Texas and their Master Gardeners."

Richard Robbins notes that the guidance of others has "helped me transform my backyard into a place that says 'no' to the lawnmower and 'yes' to the wild critters that it

was taken from. ... I have become an advocate of xeriscaping and native plants. I've made plenty of mistakes and lost many plants (especially to the deer) but I do love it so!"

Some have larger-scale experience than others. Michael Harper has 6 acres currently on drip irrigation, with a crop this year of "200 pounds of onions, red potatoes, tomatoes, lettuces, corn, peaches and plums." He is looking for further training and opportunities "to pass on my knowledge and passion for working with the soil." Arlinda Ester confesses she does not have much experience in gardening, but "would love to learn the proper way to deal with insects, composting and irrigation." She hopes to "share the importance of improving crop yields and quality nutritional value, and decrease disease and environmental stress."

Hank Bekopavlovich shows he understands the purpose of Master Gardening: "to share the benefits and joy of gardening with other people and hone my skills."

Carol Hoke speaks for many others when she lists as her definition of a volunteer, "Giving back to the community in grateful praise of all that I've been given."

Likewise, Edgar Nefflen lists as his primary reason for joining the program as "to volunteer my services to assist others and to benefit my community. I would like my volunteer activities to be focused upon gardening."

David Weinthal hopes "to learn as much as I can and incorporate the information into the teachings of natural medicine, health, and wellness for myself and others."

Claire Hall touches a common theme when she states that one of her most important motivations in joining the program is to "share my knowledge with my children, grandchildren, and friends."

Like many other members of the class, Rebecca Caldwell has moved to Texas after being an active horticulturist in another

## In Their Own Words

Give me the outdoors over an indoor office any day! As long as I can remember I've wanted to be outdoors and have a career in helping the earth in some way, though I was never sure how.

At one point in my life, I wanted to be one of the folks that get to pick up trash on the side of the road...though later decided I didn't want to have to go to court to do that! As a child, I loved spending summers picking the bounty from my grandma's huge garden at their farm.

The taste of a freshly picked, warm tomato was (and still is) heaven! Searching the overgrown mass of plants for the ripened vegetables was an adventure. Though my mom had a smaller version of the garden at our house, it was not the same as the one at Grandma's. We could literally get lost in hers! Helping her tend it over the summer—we spent most of the summer at my grandparents house, helping with harvest—was always a privilege. I was fascinated at how quickly the produce grew and the different insects that somehow always found the vegetables, and learning from Grandma which were beneficial and which were not. Once the bounty was harvested, fresh salsa was made, cucumbers and okra were pickled and canned, corn was blanched and canned, as well as tomatoes and whatever else was planted that season. We also went dewberry picking on a neighbor's property in the summertime. Again, the taste of a warm dewberry right off the vine into your mouth is almost sinful, though a close runner up was eating them in a bowl covered with milk and sprinkled with sugar! That was THE reason to go dewberry picking. I can't help but smile when I think of the closeness I felt to my family and the way that gardening brought us together. With my own kids now, we have a meager garden, a small sliver of what Grandma's or even Mom's was, but it's a start and I can only hope my kids will think upon it fondly, as I do.

Jessica Woods

I can't remember a time when I haven't been "digging in the dirt." My love of gardening actually began as a science project when I was in junior high school. With the help of my dad, we built a planter (I didn't know it then, but it was actually my first raised bed!), and I planted an

part of the country, and sees that “Understanding and sharing the differences in Texas gardening as opposed to California gardening will benefit not only myself but will help others who migrate here from other states.”

Like others, Sherry Miller relates her expectations with the MG program to a nationwide trend “by more individuals and communities to grow food locally; as a Master Gardener I could help such programs and activities for years to come.”

Robert Barnebey is “very interested in organic gardening, especially food production. He would like to “try to get my neighborhood to help finish my plans of a neighborhood vegetable garden.”

Some members see the volunteer opportunities of the MG program as dovetailing with their day jobs. For example, Jessica Woods points to the synergism between the program and her responsibilities as the City of Round Rock’s water conservation specialist. Another city employee, Hugo Ortiz, notes “I want to help the Extension Office to provide information and training to the community. I plan to help educate my coworkers and make Round Rock greener also.”

Manuel Corona added “First of all, I love sharing the knowledge I have with the public. I also want to train my coworkers on how to maintain lawns, trees, shrubs, flowerbeds, and gardens the correct way.” Juan Vega and John Soliz expressed similar sentiments.

Lynn FitzGerald is a plant specialist for Home Depot and offers workshops weekly. “I feel I need this experience to be able to bring knowledge to my customers.” He plans to expand his educational mission “to work with the students in the GISD After School Action Program and Extended School Enrichment or gardening club activities.”

On a similar note, Chris Martin has a landscaping business, but he has been “receiving more calls that require more understanding about organic gardening and I feel I need to be more educated in that area.” He plans on giving back to the community for his train-

ing by facilitating neighborhood meetings to discuss gardening issues.

Taunya Vessels and her husband had a landscaping business in Houston and would like to start a nursery in Central Texas. She sees volunteering with educational programs and gardening organizations as “a great way to stay on top of new trends and promote gardening.”

Don Markette hopes eventually to enter a second career working part or full-time for a grower. In the meantime, he plans to remain busy being involved with Master Gardening projects.

Others expect to build on experience and skills from a past career, like Pat Rheel, who writes, “I’ve had a successful career in marketing and have done hundreds of presentations and seminars. In fact, I worked for dairy farmers all my life and have a great respect for agriculture as a wonderful way to live and contribute to society.”

A surprising number have teaching experience, like Valerie Clark, who has taught at levels from middle school to college and managed a substantial horticultural operation in Idaho. She is also an amateur astronomer who has given many presentations on that half of her “heaven and earth” passions.

Jane Thorngate is another retired teacher whose hobby is gardening. “I would like to continue teaching children about the earth and gardening.”

Marilyn Hooper is typical of the several gardening hobbyists, already active in community organizations, who say “I have always loved to garden. I want to learn more. I’m an organic gardener because we need to learn how to do a better job with our earth. The Master Gardener Program is the perfect way to volunteer my time and my talents, and learn more at the same time. I can’t wait to get started!”

Shannon Thomas sums it up for many when he writes, “I like people, I like meeting people, and I like sharing information about things that interest me.”

Welcome, all, to the Williamson County Master Gardeners!

assortment of flower seeds. After feeding, watering and tending, I took my planter to class with a beautiful assortment of flowers and made an A on my science project. I was hooked on gardening! As an adult, my husband and I have enjoyed gardening. We make a pretty good team, he loves preparing the soil and I enjoy the planting, feeding and care of plants and shrubs. Working with plants now isn't about making the grade, but rather a meditative and spiritual connection to creation. Overtime, it has become a family activity that has been passed along to our daughters and grand daughters. I hope that they will develop the same love of the activity that I have and that we all look at it as an opportunity of stewardship of the land that we have been given.

Carol Hoke

When I was growing up, my mother had this huge garden. We lived off the produce from our farm and the garden was an integral part of our livelihood. I can see in my mind’s eye those long rows of potatoes, tomatoes, corn, peas, beans, onions, cabbage, carrots, squash, sweet potatoes, and watermelons. We didn’t have drip irrigation—our water came from the nearby pond in the pasture that we carried by buckets and doled out to each plant with a coffee can. In the spring, the soil would be plowed into rows with the tractor. Then came the planting of the potatoes we had cut up and the corn that would be sending up green shoots. Soon after, the seeds that had been saved from the past season were entered into those rows. The best flavors came from those vegetables we ate from the plant or dug out of the ground. In the hot summer, we would take a break from our farm chores and bust open a watermelon picked straight off the vine and sit in the shade to eat it with the juice dripping down our arms. In the winter, mother had a storeroom that was filled with colorful jars full of the fruits of that garden labor. We thrived on homemade sauerkraut, pickles, carrots, beans, jellies, and pickled watermelon rind.

Later on my mom lived in town so her space was limited. She still had lush beds of asparagus and strawberries that we could eat right there in the garden. I don’t have long rows to plant with vegetables—I have a small raised bed. I don’t carry water—I have a faucet nearby with hoses for irrigating. I can plant only a few of each

## Master Gardener's Reveal

## Why I Garden

### Sherry Miller

I can remember many years ago living in a small apartment with hardly enough windows to keep houseplants alive; I loved to listen to a couple of gardening shows on the radio at that time, and to watch the original Victory Garden program on TV. I had no clear plan for when I'd have a garden plot, but knew that someday I'd use the notes I carefully took as I listened and watched. The hosts, the guests, the callers with questions all seemed to share a lively enthusiasm for what they were doing, and an optimism that appealed to me.

Growing up, my parents had a vegetable garden every year, and my mother would can and freeze all she could. I remember her satisfaction and pleasure looking at the shelves in the basement (I grew up in southern Minnesota where basements were the norm) lined with Ball and Mason jars of pickles, tomatoes, string beans, etc. It was years later before I truly understood their great satisfaction with growing and eating that lovely produce.

**SURPRISES AND ACCIDENTAL LESSONS** One thing that draws me back out to the garden and "yarden" again and again is the surprise event, the volunteer plant, the new bug or bird I've not seen before. The tomato plant that was the most productive in our weird summer of 2009 was a volunteer that appeared in the middle of my asparagus row. It's some large cherry or small Roma or a cross. When I first saw it at about 6 inches, I put a cage over it and a large pail of water in the path next to it so I'd remember it was there and to keep it watered, not knowing for sure at that time what it would do. One of my few successes at cantaloupe was a volunteer that grew at the edge of a compost pile.

We've been watching a huge number of polliwogs develop in our small goldfish pond after discovering the tiny things one morning. It's like an on-going biology experiment, and fun to share with the children of friends who stop by to gather eggs, feed the goats, or pick whatever might be ripe.

Another accidental lesson I learned was years ago when a caterpillar or some other insect was stripping the leaves off a favorite plant. I was too busy to treat it right away, and when the plant was de-foliated, I berated myself for such poor tending. A few days later, much to my delight, it was covered with tiny emerging leaves. It was more compact and looked better than ever, and the culprit had either moved on or grown to its next stage. I have never forgotten two things I learned: 1) Don't be too hasty killing the critter and 2) ruthless pruning, natural or deliberate, can lead to compact, lush foliage. Since then I have heard different variations on those same themes, but the time I learned for myself sticks out in my mind!

**PASS-ALONGS AND OTHER SHARING** One of my favorite plants this year is something I'd not had before—sweet potato vine. I have the varieties Blacky, and Marguerita in two large pots on my garden shed porch, and one by the front door of the house. My first cutting of Blacky was from a demonstration by a Master Gardener last year at an event in Pflugerville about container gardening. She had a few cuttings of roots left over, and handed them out. This year they are not trailing as long as before, because I think a couple of rabbits are keeping them trimmed.

A friend of ours has come twice this year for goat manure and chicken manure for his compost pile; it's great to have help with the mucking-out, and such fun to see someone so excited about that aromatic load of...stuff.

**ON MY BOOKSHELF** At the moment I have: Texas Organic Gardening Book by Garrett, Organic Rose Garden by Druiitt, Tips for the Lazy Gardener by Tilgner, and Your Backyard Herb Garden by Smith. I also have 2 small 3-ring binders plus pocket calendars which serve as my garden journals, documenting each season. I have found them invaluable for planning the next year's plantings. I also have laminated copies of the Planting Guides from the *Texas Gardener* magazine, and copies of the Guide from the County Extension Office.

variety instead of a long row. I don't have the room for the cantaloupe and watermelon to spread their vines. What I do have is the memory of working in the dirt and seeing luscious vegetables produce in that garden of my childhood.

What I can work on in my small garden is making memories for my grandchildren of picking those sugar snaps off the vine and pulling up carrots and biting into cherry tomatoes. Maybe my garden will live on in their mind's eye.

Arlene David

Born and raised in Wichita, Ks and it is true, you might take the girl from Kansas but you can't take the Kansas out of the girl. The last forty+ years have been spent in the mecca of gardening, Southern California. With a small 1/4 acre in our last home, I had eleven fruit trees, three English walnut trees, a year round vegetable and herb garden as well as over fifty ornamentals. If we stuck it in the ground, it would grow. Unfortunately California is not a location that one can financially survive an unplanned early retirement.

Fortunately with a son who is a career military at Ft. Hood, we have spent several years visiting central Texas. Although the weather is a difficult challenge to adjust to, the people more than make up for the the adjustments and the changes. The people of Texas are sincere, welcoming and friendly and this far outweighs any down-sides.

But for an avid gardener the difficulties in gardening in Texas are monumental. What better place to learn the intricacies of the weather, the solid rock ground, the heat, the lack of water, the different growing seasons, the heat, different tree and plant selections, oh and did I say--the heat?? I am counting on the Master Gardening program to provide me with all the tools necessary to learn to become an expert Texas Gardener! Hopefully, I will then be able to share that knowledge with a community (Sun City) full of rules and regulations, (not necessarily ecologically sound), as well as share with others, just like myself, coming from different locations in the US and not knowing how to begin gardening in this new land called Texas. After our first week's session, I am confident and excited about the entire program.

Rebecca Caldwell

A Master Gardener Walks

# ...along the trails

**Annette Banks**

Just when dedication to “going green” is taking on a life of its own, the trails seem to be “going brown”. On my recent walk it was depressing to watch some of the trees slowly dying. Yet, a few hardy and determined wildflowers showed a bit of color. With the exception of a couple of cardinal plant blossoms, the only vibrant color was shown by the partridge pea. The bright yellow blossoms surrounded by strong medium green foliage seemed to draw the appreciative eye of each passer-by.

The *chamaecrista fasciculata* known by other common names: sleeping plant, dwarf or golden cassia, prairie or showy or sensitive partridge pea, locust weed, beflower, and partridge pea senna. This native plant, which belongs to the *Fabaceae* – Pea family, grows in zones 3-9 with ph requirements of 6.1 to 7.8, reaches heights to 3 feet, and blooms from July to September.

The plants can be found on prairies, bluffs, along banks and bottoms of rivers in the Midwest, east, and southern U.S. Deliberate plantings of partridge pea are done to help with erosion problems and to improve soil fertility due to nitrogen fixation, especially at this time when it is blooming. Their appearance on our Georgetown trails this summer is evidence that they are drought and heat tolerant. They survive direct sunlight, but tolerate some shade.

The stems go from a light green to a reddish brown wage. The leaves are alternate and compound with each one supporting 10 to 15 pairs of narrow, sensitive leaflets. The blooms appear near the axils of the leaves. Each flower is about one inch in diameter, appears in clusters of 2 to 4 on the stem, and sports five rounded petals and about 10 reddish stamens that vary in shades of yellow to a reddish brown..



As its relatively long blooming cycle draws near an end, the plants develop hairy green pods, which become smooth and dark green. These 1 ½ to 2 ½ inch pods split along two sutures as they become dry. As they split they cast the seeds some distance from the parent plant.

In Texas we recognize the showy partridge pea as great ground cover for bobwhite quails. The quails, other birds, and small mammals, such as field mice, are fond of the seeds. The plant is a food source for honeybees, bumblebees, miner bees, leaf-cutting bees, plus other bee varieties and a number of insects. The Sulfur butterflies lay eggs on the leaves, and the caterpillars feed on the foliage. White-tailed deer can eat moderate amounts without danger, but the plant is considered unsafe for cattle. The seeds contain a cathartic substance and should not be used as livestock food whether as fresh material or in dried hay form.

Native Americans used the plant roots for sources of medicine. They were used to reduce tiring, nausea, and as a stimulant to reduce fainting problems.

Propagation: The seeds should be planted ¼ to ¾ inch deep about 36 inches apart in raised beds from late winter to early spring. For better germination, seeds can be cold moist stratified for 56 days. Germination usually occurs within 7 to 25 days.

In Texas if you plan to add the partridge pea in your native garden area, the cultivar ‘Comanche’ is recommended for its beauty, as a warm-season legume cover crop, and a wildlife food source.

Master Gardener Basics

# Back to the Basics

## Winola VanArtsdalen

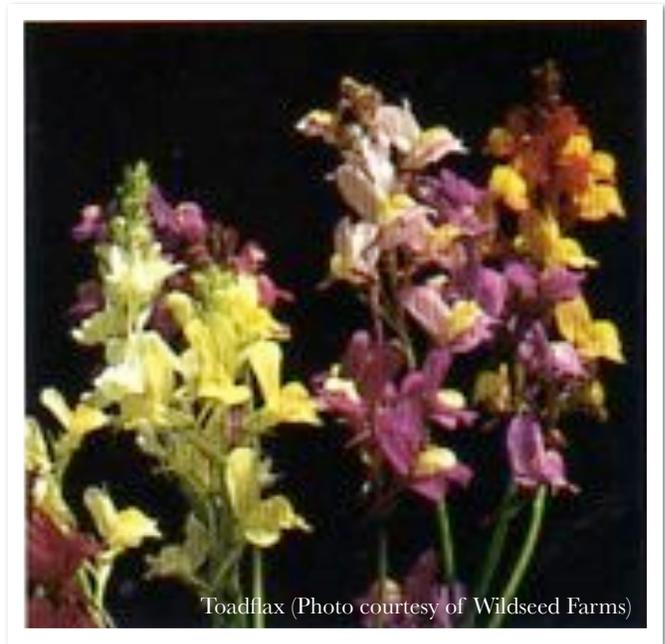
*In the hot month of August, this series continues with a nod to sentimental favorites. This is the time of year when you may be tempted to look at your plants and say, "Better them than me," and give up! When you stand back and focus on what is most important to you, what you most want to save, undoubtedly, it will be those family keepsakes and plants shared by friends through the years that you treasure most.*

### BLOOMS FROM SEEDS BRING JOY THROUGHOUT THE SEASON

Planting flower seeds provides you with joyful blooms throughout the growing season. Minimal preparation with almost no follow-up is required. First, you need to choose a well-drained site and then remove existing vegetation. Loosen the surface to a maximum depth of about an inch, as you do not want to disturb dormant weed seed.

Now mix the seeds with a filler, such as masonry sand or potting soil to make it easier to spread the seeds evenly. Spread like you were throwing out fertilizer on the grass, first one direction and then the second sowing crosswise to the first. Press the seed to make contact with the soil by pressing with your hand, walking over it, or rolling something over it. For wildflower seeds, the instructions usually say to cover no deeper than 1/16 inch, but I do not cover at all as they go down a little into the sand or potting soil used as a filler. You can follow the instructions on the packet; or, if you have no instructions, look on the Internet. Just remember that, if the seed is too deep, the embryo will use up its nourishment supply before the new leaves can reach the surface to photosynthesize. Once the seeds are watered, they must have consistent moisture to germinate. After that, you can just relax and enjoy!

If I have only a few seeds to plant interspersed with perennials in a flower bed, rather than removing the mulch, I just poke holes with the end of a wooden tool handle through the mulch to get the soil. I then drop in two or three seeds in each hole. After dropping in the seeds, press with your hand to make contact with the soil, and it's done! This is very easy and takes much less time than removing the mulch and heavily seeding the whole area. Descriptions of a few of my favorite flowers from seed follow. You will note that I have only



Toadflax (Photo courtesy of Wildseed Farms)

used the species name with my keepsake plants, as I am not certain of the variety.

Toadflax/Spurred Snapdragon, *Linaria maroccana* (*Scrophulariaceae*): Planted in full sun or partial shade, toadflax will bring early cheer well before other blooms. One lone plant does not show up much, but heavily seeded, they are stunning. Seed catalogs say it blooms March-June, but mine often bloom in February! Take a bouquet of toadflax with their vibrant colors to an early March gathering, and you will cause a sensation. Your friends can hardly believe they are real!

Poppies, *papaver*: Right after toadflax, your huge, red poppies take center stage for the month of April. Start with a few seeds, and next year you will have a lifetime supply of poppies! (Look in last month's August newsletter for pictures of my poppies, rose columbine, and larkspur.)

Columbine, *Aquilegia*: I love my great-mother's rose-colored columbine for sentimental reasons, but I have to admit the yellow Texas columbine, *Aquilegia chrysanthe* 'Texas Gold,' is larger and more striking. Give columbines some shade, and they will bloom from April into June. (I first planted my rose columbine in a sunny flowerbed and found they only survived where they were under the shade of bushes.)

Larkspur, *consolida*: Larkspur grow in more sun than columbine, but not in the hot afternoon sun. When I give seeds to friends, I always



Arrangement with Black-eyed Susans in foreground

call to their attention that larkspur has naturalized in my flowerbeds on three sides of the house, but not on the west. My larkspur started blooming in April this year, and I still had some blooms in August of this beastly hot summer!

Black-Eyed Susan, *Rudbeckia hirta* (Asteraceae): When you look at a black-eyed Susan, you just have to smile. To me, they exude youth and energy. Black-eyed Susans thrive in full sun, but can tolerate some shade. They bloom from July-August, and sometimes even later into the fall. They are shown here in an arrangement used for a 12 year-old girl's baptismal party outside in the garden. With one of these arrangement at each table, it was the perfect setting.

Yellow Cosmos, *Cosmos sulphureus* (Asteraceae): Yellow cosmos makes a striking display that can be seen from a distance. They are a golden yellow color and grow to a height of 2-3 feet. If you keep trimming the dead blooms, they will reward you with a traffic-stopping show May-November!

All of my favorites described here are self-sowing. Their first year, I planted all of these on October 1st. After the first planting, you have only to thin them in the spring and enjoy the season! If you deadhead

Yellow Cosmos, Photo courtesy of Wildseed Farms



them, they will bloom longer, but that is your choice. For a tiny bit of effort thinning in the spring, you enjoy their beauty all season. This is as close to "no maintenance" landscaping as it gets!

## Migrating Dragonflies

Have you been noticing dragonflies lately?

This information is provided courtesy of Forrest Mitchell, Professor of Entomology with Texas AgriLife Extension. Forrest has a site & a book on dragonflies.

"Although there are a lot of different species of dragonflies and damselflies in Texas (currently 231 according to Odonata Central, see below) not many of them will pick up and migrate as you have already noticed by the stable numbers in your backyard. In the appendix of *A Dazzle of Dragonflies* are 26 (I think) species listed that may be migratory, but there are two species mainly responsible for these current mass movements that I am seeing: the wandering glider (*Pantala flavescens*) and the spot-winged glider (*Pantala hymenaea*). My best scans can be found here: [http://www.dragonflies.org/l\\_cat2.htm](http://www.dragonflies.org/l_cat2.htm) about halfway down the page. You can see more pictures and scans of them here: <http://stephenville.tamu.edu/~fmitchel/dragonfly/Libellulidae/pantala.htm> You can find write-ups on both species here, as well as the 'Species of Texas' checklist:

[http://www.odonatacentral.org/index.php/ChecklistAction.showChecklist/location\\_id/64](http://www.odonatacentral.org/index.php/ChecklistAction.showChecklist/location_id/64) Odonata Central and John Abbott are where I go with my questions.

The rainpool gliders are adapted to breeding in temporary water, hence their name. If they have enough to eat, the wandering glider can go from egg to adult in less than 30 days during the summer, so the water only needs to last that long. A dozen or so spot-winged gliders developed in a shallow fountain one summer on my deck. I don't know how long it took since I didn't notice them until they were over half-grown. They ate insects that fell into the bowl, midge larvae and any other dragonflies that were deposited after they were. Rainpool gliders will lay eggs in nearly anything that can hold water including buckets,

saucers, flower pots, water troughs (a favorite), puddles, ditches and swimming pools. They will attempt to lay eggs on shiny car hoods, wet asphalt and wet concrete. I have noticed that the wandering gliders will lay eggs in water that is in open sunlight, while the spot-winged glider will lay in the shaded pools and water.

A lot of the South is in a drought, but these dragonflies are able to stay aloft for long periods of time and do not need to originate from a close-by source. In fact, the wandering glider is found throughout the world except where it is too cold year-round. Work in the last decade on the eastern seaboard of the US shows that moving dragonflies are swept together and collected by weather fronts. These concentrations may then be deposited elsewhere and a long way off. We have had several cool fronts along with heavy localized rain to make rainpools and either or both may be what accounts for the presence of so many dragonflies in our region. I am noticing them mostly over stretches of roads and parking lots or wide open fields where the hunting is good. They may be in other places as well, but harder to see.

Just as fronts can bring dragonflies, fronts can also take them away. Enjoy watching them while you have a chance. In case they disappear, I've enclosed a scan of another migratory species, the common green darner, to look at. They tend to move in September-October in our part of the world and are often seen by people doing monarch counts during the butterfly migration. I had another letter asking me about this species, so I pulled it out and made it a workable size. [Feel free to post it on the DMN website for your readers and/or print it in your column.] Credit James Lasswell, my coauthor on the book, with its construction. If printed on glossy paper with a good inkjet or laser printer, it is suitable for framing. Or so I think, but then I am biased."

Master Gardener How To

# How to Make a Pole Paint Sprayer

## Grace Bryce

**Application:**

The pole paint sprayer is used to paint hard to reach cuts, as they are made on oak trees or to paint wounds from storms or animals. Cuts should be painted as they are made to prevent the Nitidulid beetle from infecting an oak with oak wilt. The tree can be infected by the beetle within fifteen minutes of cutting or wounding. Remember to disinfect trimming tools with 70% alcohol between trees. The cost to make this nifty tool is about \$15 and it takes less than 5 minutes to assemble.

**Supplies:**

- 5" Hinge
- 2- Hinge screws (hardware next to hinges)
- 2 1/2" - 3 1/2" adjustable Hose Clamp (plumbing department)
- Nylon rope
- Extension pole (wooden) - (paint department)

**Procedure:**

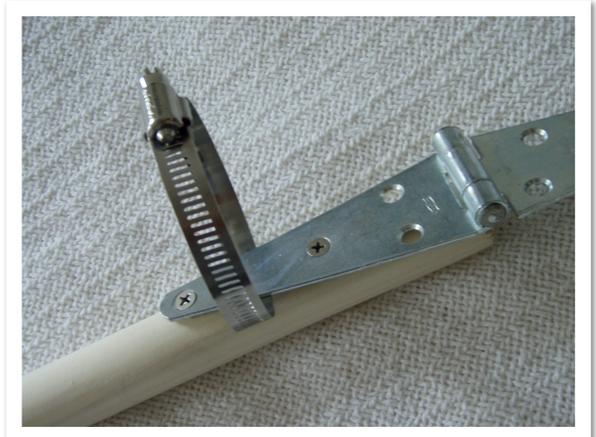
1. Place hinge on the top edge of the extension pole.

2. Using hinge screws attach the hinge and the hose clamp to the extension pole. The hose clamp will slide between the hinge and the pole. (If a metal extension pole is used, a screw holes will need to be drilled and machine screws and nuts will hold the hinge in place. For a convenient twist, this sprayer can be attached to a pole saw instead of a plain extension pole.)

3. Cut a piece of rope 5'-6' long and burn both ends with a match to prevent ravel. Loop the rope through the distal end of the upper part of the hinge and tie a knot.

4. Insert a can of spray paint (any paint will work) into the hose clamp and adjust it so the can is high enough for the hinge to push the button for spray. Tighten the hose clamp with a screwdriver to secure the can. (It's a good idea to transport it with a cap on the can and test it outside.)

5. Pull the rope to paint the cut and help prevent oak wilt.



Master Gardener Awareness

# War Declared Against the Giant Reed

At number eight on the Texas Invasives dirty dozen list the Giant Reed (*Arundo donax*) is familiar to all of us. It is one of those plants you either love or you hate. I particularly disliked it until I discovered that Prokofiev's classic "Peter and the Wolf" would never have been possible were it not for the musical characterizations made by the bassoon (the grandfather), oboe (the duck), and clarinet (the cat). These wind instruments require wooden reeds to make sounds, as do saxophones and bagpipes. The sole source of these reeds is *Arundo donax*. Musicians in various parts of the U.S. actually cultivate the plant, to make their own instrument reeds. To them it is known as bassoon cane or oboe cane, Sadly, in some states the Giant reed is out of control. Texas is one of them. It is believed that every southern state may have its our large monoculture of Giant reed. These areas have been shown to be devoid of bird and insect populations and it does not have any natural predators here in the US. Back in its native Mediterranean environment predators abound and the reed is kept in check. Research is underway to try and control the reed since it is taking over riparian areas at an alarming rate. The ecological threat of Giant reed is immense. It chokes riversides and stream channels, crowds out native plants, interferes with flood control, increases fire potential, and reduces habitat for wildlife, including the

Least Bell's vireo, a federally endangered bird. The fibrous, interconnecting root mats can form the basis of debris dams behind man-made structures that can lead to damage. It is a fire hazard because it ignites easily and creates intense fires.

Spread by rhizomes which can be washed down stream where they take root and rapidly grown into thick stands that invade new areas at the expense of other species. It can out compete and completely suppress native vegetation.

"The most devastating impacts of *Arundo* are along the Rio Grande in Texas," says Goolsby, who's spearheading Agricultural Research Service (ARS) in Weslaco efforts to manage the weed. However, Mexico also has a problem and the reed has led to the extinction of a rare fish species near Monterrey. Extensive research with insects for the reeds native Spain are bringing hope that a solution may be in sight.

Perhaps to be dubbed the "fab four" each insect attacks the reed in a different part of the plant. A scale insect, *Rhizaspidiotus donacis*, which may be released this summer, attacks the roots and rhizomes. This is seen as the most promising of the "fab four" as it could potentially debilitate the reed. The scale is also a prolific breeder. The *Tetramesa romana* wasp attacks the main stem and was released earlier this year and is harmless to humans.



Aerial view of Arundo near Big Bend National Park, TX D1481-1

This weakens the plant, lessens its overall height, and causes it to form galls and put out side shoots. The *Arundo* fly (*Cryptonevra spp.*) eats the inside of new shoots, while the leaf sheath miner, *Lasioptera donacis*, destroys leaves.

Along with insect control other research is being carried out to attack the reed from other directions. An animated *Arundo* plant can be the basis of virtual experiments in which changes in the plant's environment can be simulated, studied, and used to predict the possible outcome of real-world *Arundo* experiments.

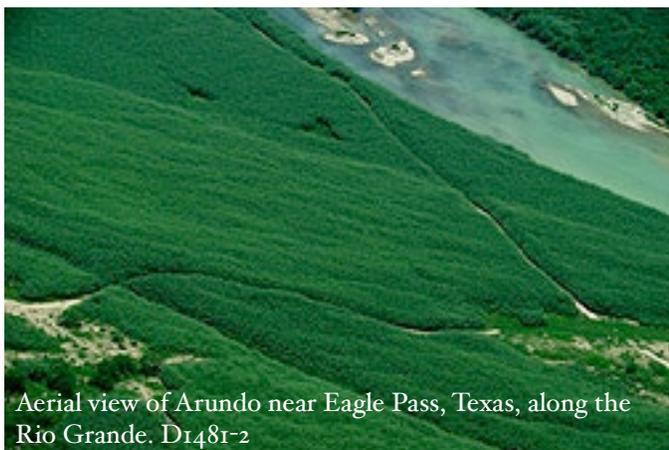
Soil samples have been taken from all over the US where the plant is a problem. Analyses of the types of soils *Arundo* grows on might reveal whether some are less favorable for the plant than others. The results of these studies should be available later this year.

Other research includes DNA analyses and the biocontrol investigations which are unlocking some of the plant's secrets and are giving scientists and streamkeepers alike a new knowledge that they can use to stop the advance of this aggressive invader.

To learn more about *Arundo donax* check out these sites:

- [http://www.texasinvasives.org/invasives\\_database/detail.php?symbol=ARDO4](http://www.texasinvasives.org/invasives_database/detail.php?symbol=ARDO4)
- <http://www.ars.usda.gov/is/AR/archive/jul09/arundo0709.htm>
- [http://www.texasinvasives.org/publications/publications/08\\_GiantReed\\_TFA.pdf](http://www.texasinvasives.org/publications/publications/08_GiantReed_TFA.pdf)

Images courtesy of the USDA



Aerial view of Arundo near Eagle Pass, Texas, along the Rio Grande. D1481-2

## “Bug” of the month



½- inch long with a black head, a reddish section behind the head with dark middle marking (prothorax) and flexible dark brown wing covers (elytra) edged with yellow. Their most notable feature is the underside of the abdomen with the last number of segments colored greenish-yellow, forming a "tail light" capable of producing flashes of light. Larvae are flattened, spindle-shaped and have shield-like segments. Females of some species are wingless and appear similar to larvae. Wingless females and many larvae also have structures that produce light, and are called, "glow worms."

Few other insects can be confused with lightning bugs because no other insect possess the light-producing structures on their abdomens, although some click beetles (*Coleoptera: Elateridae*) also have light-producing structures on their bodies.

**Life Cycle:** Winter is spent in the larval stage in chambers formed in the soil. They pupate in the spring and emerge in early summer. After mating females lay spherical eggs, singly or in groups, in damp soil. Larvae hatch from eggs in about 4 weeks and larvae develop through several stages (instars) before pupating. The life cycle of most species takes two years.

**Habitat and Food Source(s):** Mouthparts are for chewing. Immature stages of lightning beetles are predatory on other small insects, earthworms, slugs and snails. Adults of some species are also predatory. Larvae and adults are active at night (they are nocturnal), and immobilize their prey by injecting them with inject toxic digestive enzymes before sucking out the liquefied body contents. Adults produce light to find mates and some species use light to attract other species of lightning bugs as prey. The light produced by lightning beetles gives off no heat and is produced by the reaction of two substances (luciferin and the enzyme, luciferase). Adults of some species apparently do not feed. Common in open areas near woods. Lightning beetles can be found in early summer (late May) beginning at dusk when they illuminate.



When I was a small child living in East Texas I was always fascinated by what we called lightning bugs and chased after them many late evenings. When I moved to the Houston area I did not see many and kind of forgot how nice it is to sit out late in the evening and just watch them fly around. After moving to Georgetown I was sitting on my back porch and saw some of them flying around and also at a friend's home in Berry Creek one evening close to dusk, they were everywhere around the golf course. So I thought I would research them a little further. They are called fireflies, lightning bugs and lightning beetles, the latter being most descriptive, since they are neither flies nor bugs but in the beetle family.

Adults of the woods firefly, *Photuris pennsylvanicus* DeGeer, common in Texas, are long and narrow, about

Some of the text is from the web site, <http://insects.tamu.edu>. Picture of lightning beetle also from the same web site.

Wayne Rhoden  
Entomologist Specialist

## Master Gardener How To

## Let's Talk Deadheading

### Marlyn Hooper

My goal is for my garden to look like Martha Stewart's garden. My husband constantly tries to assure me that she has at least seven gardeners working for her. He also tells me that she only sleeps 4 hours a night. My goal is probably unreachable - I know this.

I just want my garden to be beautiful. I want my flowers to be spectacular. Most flowering plants benefit from having their dead flowers removed; this is called deadheading. Every article I read says to have gorgeous flowers, you must deadhead for extra blooms. You don't have to deadhead; your garden will live without it. But...after you have worked for 3 1/2 hours in the garden and everything is deadheaded, your plants will look up at you and say, "Thank you so much." Does it get any better than that??

I try to wake up early, before the mosquitoes get out of bed. This summer, when it has been hot like only Texas can be hot, I deadhead because I must...but in the spring and fall, I deadhead because I love to do it. I put on my cute, green gardening shoes, my wonderful hand woven gardening hat with the leather strap, and grab my expensive pruners. You have to look spiffy and always have the right tools. My plants like the fact that I go the extra mile for them.

Flowers that repeat blooming will only do so if the old, dying flowers are removed. If they stay on the plant, they will go to seed and stop producing flowers. Even many flowers that bloom only once per season benefit from deadheading because the plant puts its energy into growing strong instead of producing seed.

Deadheading is just pinching off a dead flower blossom. Some gardeners deadhead because they like a tidy garden (and have extra time on their hands!), but sometimes letting flowers go to seed is more desirable. For example, if the seed pods are pretty and look great in the garden in the winter, leave them. If the seeds provide food for birds and other wildlife during the colder months, they are important to your backyard wildlife habitat.

Deadheading is easy to do. You can use your fingers to flick off the flower head. Some flowers have thicker stems and you need your pruners. Make a clean cut and be sure to remove the entire flower head down to the stem. Flowers that grow on long stems like daisies

and daylilies should be cut to the ground to encourage new leaf growth.

Sometimes it seems so tiring to deadhead, but the new blooms make it all worth it. It keeps plants looking their best, and it stops seed production. Make sure you also remove the seed pod, often located at the center or just behind the flower. In other words, don't just pull off the petals.

You should deadhead as soon as the flower colors start to fade.

Some plants are "do it yourselves," like impatiens and wax begonias; they get rid of their dead flowers on their own and continue blooming. However, plants such as petunias need to have the entire flower removed all the way to the main plant stem. Don't leave the green trumpet. Leaving long, leafless stems to die prevents plants from producing flowers and even food. Zinnias, marigolds, and cosmos will flower all summer if you remove the dead flowers. Cut the stem back to the next bud or set of leaves. Snapdragons will usually produce flowering side shoots if you prune off the main flower stalk once it has bloomed.

For plants like blooming perennials and rose bushes, it is best to stop deadheading in the fall and let the plant get itself ready for winter. Leaving some perennials with spent flower heads, such as sedum, can provide winter interest.

With everything so lifeless in my winter garden, I love having something interesting to enjoy.

Don't expect miracles. Deadheading doesn't work for all plants. Tulips, daffodils and most other bulbs won't flower again until the following year. Others don't need it - ground-cover plants, for example.

If you have questions about which plants to deadhead, I found this wonderful site. Go to:

<http://www.gardengatemagazine.com/extras/pdf/58deadheading.pdf>

Tomorrow is a new day. Wake up early. Real early. Get dressed in your cute gardening clothes. Grab your pruners and get ready to deadhead!



Master Gardener Warning

# Invasion of the Alien Ants

Dale Rye

We are used to the idea of invasive plants, and even of invasive animals, but one of the most serious threats to native environments comes from invasive insects. As with the other invaders, exotic insects may lack any natural enemies or diseases in their new territories. This enables them to outcompete species that have spent millennia evolving into a specific niche in a specific ecosystem where they, the species they feed on, and the species that feed on them have reached equilibrium. The population explosion among the alien species can make them major pests and drive them to expand their range very rapidly. Three ant species have created particular problems in recent years.

The Red Imported Fire Ant (RIFA, *Solenopsis invicta*) arrived at Mobile, Alabama, in cargo shipments from Brazil in the early 1930s. They have subsequently expanded from New Mexico to Maryland (with an outlying colony in California). Not only have they spread naturally, but in infested nursery products. The ants form large mounds that can interfere with farm machinery, and their deep, extensive tunnels often damage plant roots. They are attracted to electricity and can short out a junction box fairly easily. Fire ants are the leading cause for traffic light failures in Texas. Nationally, annual damage from the RIFA may approach \$6 billion. The species is also a problem in parts of Australasia.

The name comes from their stings, which inject a necrotizing alkaloid that causes a pain like fire and brings up white pustules a day or so later. The first ant to sting releases a pheromone that causes every ant nearby to swarm the victim and attack. While only 80

human deaths have been recorded, losses among livestock and wildlife have been significant. Many species have newborns that instinctually cower motionless on the ground to keep a low profile if they feel threatened, which is precisely the wrong thing to do if you are under a RIFA attack. A fire ant infestation can clear an area of small amphibians, reptiles, and even mammals, besides their effect on other insects. Ground-dwelling native bees are particular targets, and this of course affects any plant species that is dependent on the bees for pollination.

Attempts to drown the ants typically result in their forming a ball or raft that floats to another spot. Trying to kill them with thirst does not work either, because they can usually tunnel down to moist soil. The breeding chamber with the queen is often more than six feet underground. Fast-acting insecticides kill the workers before they can get to the queen with the poison, so slow-acting baits are about the only effective remedy. Recently, an increasing number of RIFA colonies have been observed that have multiple queens in widely separated locations within the tunnel system, making them that much harder to eliminate. There have also been efforts at introducing biological controls, like the phorid fly.

A somewhat more recent arrival is the Argentine ant (*Linepithema humile*), which comes from the area of South America where Argentina, Paraguay, Uruguay, and Brazil come together. They have spread to every continent but Antarctica. Fortunately for us in Texas, they are more common in California than elsewhere in America (perhaps because of competition from the RIFA). In their native range, the ants are self-limiting because they form mutually antagonistic colonies; when an ant comes upon an unfamiliar worker, it attacks it. Unfortunately, the ants that have colonized other areas of the world came from only a few of these colonies. Most of the Argentine ants in Europe, California, and Japan are part of a single super-colony whose members leave one another alone.



*Linepithema humile, the Argentine Ant.*

Individuals can mingle freely in widely-separated nests, giving them a huge advantage over native ants that are limited to a single nest. The smaller colonies in South America coexist with other ants, while the invasive super-colony tends to wipe out all competition and develop high population densities. By wiping out the native ants, the Argentine ants threaten animal and plant species that depend on those ants for food, pollination, or seed dispersal. The California Horned Lizard is threatened by these ants, much as the Texas Horned Lizard is by fire ants. An invasion of Argentine ants is almost always accompanied by a surge in the population of plant pests such as aphids and scale insects, because the ants "tend" these species for their sweet secretions. This can have serious effects on gardening and agriculture. The final one of the three we will discuss is known as the Raspberry crazy ant, *Paratrechina sp. nr. pubens*. As the incomplete scientific name suggests, this is not an ant population well-known to science; it is a species "near" the Caribbean crazy ant (*P. pubens*). It is, in fact, named after the exterminator in Houston who first described it in 2002. They are called "crazy ants" because individuals forage erratically. Some indication of the impact of this species is that it is displacing the RIFA in some parts of Southeast Texas as it expands from a center in Harris County near Pasadena. The A&M Urban Entomology Center observes, "after experiencing the Raspberry crazy ant, most residents prefer the fire ant."

These ants do not have defined mounds but live in swarms of millions of individuals



*A Queen red fire ant captured from a neighborhood in Houston. The ant was placed in a computer scanner and scanned. Its body was slightly crushed during the scanning*

under or within objects almost anywhere. Although they nest outdoors, they often range indoors. Colonies have multiple queens that forage with the workers. Raspberry crazy ants will eat almost anything. Related invasive species are decimating the wildlife on Christmas Island in the Pacific and attacking livestock in South America. In Texas, they are having a serious impact on birds, even those that nest in trees, and have been known to attack pets and people in their backyards. Fortunately, they do not sting, just bite. Like the Argentine ant, the crazy ants tend aphids and scale insects for their sweet secretions, potentially causing significant damage to the plants these insects feed on. In South America, some grasslands have been destroyed by fluid loss from sucking insects tended by crazy ants.

Although the heaviest concentrations of the Raspberry crazy ant are in Southeast Harris County, localized infestations have spread to most surrounding counties. There has been at least one report in South Central Texas, in Bexar County. They could spread almost anywhere the winters are warm enough for their survival. Unfortunately, the Raspberry crazy ant is not attracted by the baits that can help control fire ants and similar pests. About the only thing that is effective in preventing them from invading a house is creating a barrier of contact insecticide in concentrations that require a professional exterminator. After the first

application, it is necessary to sweep away the dead ants in order to treat the underlying surface. The barrier usually lasts no more than 2-3 months.

As we have seen, the impact of these three species

of invasive ants has been quite significant. They have profoundly changed the ecology of their new environments, and not in a good way. Multiply this times all of the invasive species we can observe in America, and the impact is immense.



*Localized infestations have also been confirmed from areas in Bexar, Brazoria, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, Walker and Wharton counties. New infestations are suspected beyond these areas of infestation. However, sample identifications have not been confirmed. This ant has the potential to spread well beyond the current range in coastal Texas. However, it is a semi-tropical ant and potential northern distribution will be limited by cooler weather conditions. Images: Texas A&M*

## Monarch Waystations

The 2009 Monarch Butterfly migration from Canada to Mexico recently entered the United States. This magnificent display of nature is threatened by loss of habitat in the overwintering sites and along the route. The butterflies rely on milkweed for their caterpillars as successive generations move north each spring and summer, and on more flowers for the migrating adults in the fall. Development and the use of herbicides has reduced these food supplies in the agricultural settings that Monarchs once relied on. For example, some 30% of the historic summer breeding grounds are corn and soybean fields that are now sown with genetically-modified crops that allow the broadcast use of glyphosate (Roundup(R)), which eliminates the milkweed.

The organization MonarchWatch has set up a program to help offset the losses by creating Monarch Waystations. These are areas

in home gardens, schools, parks, and other open land where the fall flowers and-crucially-the milkweed needed by the Monarchs are available. Quite simply, without milkweed habitats there can be no Monarch migration.

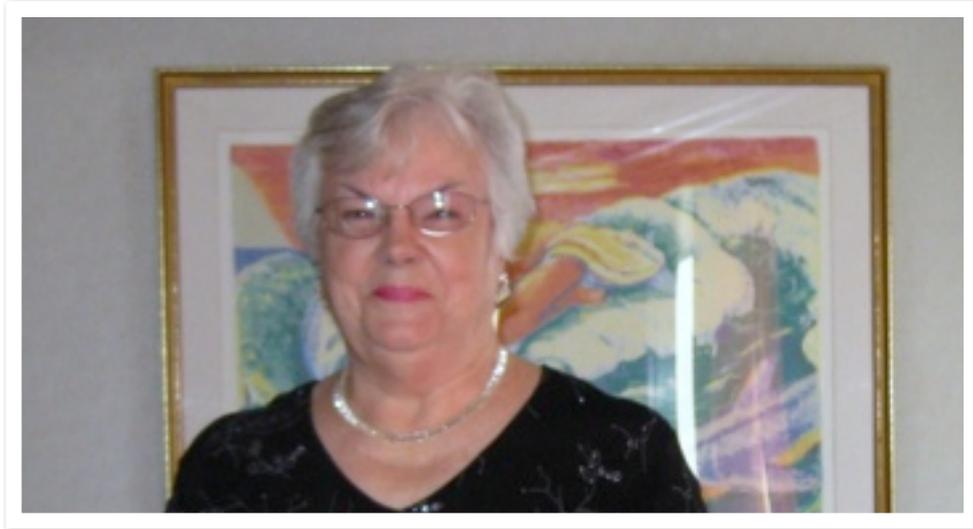
MonarchWatch has seed kits available to help create a Waystation and has a program for certifying sites as registered Monarch Waystations. These sites are recognized on a national registry. For details and additional information to download, see <http://www.MonarchWatch.org> Since the butterflies have not developed the internet skills to access the registry themselves, there need to be enough Waystations for the Monarchs to find on their own!

## Meet Your Master Gardeners

# Juanita James

*Each month we will spotlight one of the Master Gardeners in our group. Getting to know each other is something that we don't really seem to have time to do, so hopefully this will be a way to make some more "connections" with the people in our group.*

**Sandra Rosen**



It is so well known in Juanita James' family that she and her sister, Patsy Bredahl, love gardening so much that once when they went back home to visit their sister (a non-gardener), they were so pleased to note that she had red flowers blooming everywhere. A closer look showed that the red flowers were actually red silk flowers! Juanita and Patsy weren't fooled for long, but long enough that everyone had a good laugh.

Juanita grew up gardening. Her family didn't actually own the farm in Cotton Center, Texas, but were "sharecroppers" and work the farm they did. Juanita remembers feeding the animals, rendering the hogs, sowing the seeds, picking and sorting the crops, canning and preserving, and freezing. She probably knows more about farming than most of the rest of us will ever know. "Living it" is better than "learning it."

After graduation from high school, Juanita moved to Lubbock and went to Draughton's Business College. She worked in Lubbock for a few years, married and moved to Roswell, New Mexico, where her husband went into a partnership with another architect. Even though New Mexico was a beautiful place to live, the economy was not good at that time and so they moved to Austin. Juanita worked for 32 years in Austin for a quasi-state agency called the Texas Workers' Compensation Assigned Risk Pool. In 1994 the agency was dissolved by the Legislature and the assets and liabilities were sold to a private insurance carrier, then called the Facility Insurance Corporation. She retired from this company in December 2006. There are, of course, many interesting stories about working in the workers' compensation program, but none are for print!

Her three children and 6 grandchildren live nearby and her eyes light up when she talks about the fun and adventures that they have together. There are movies to go to, animals (pigs, lambs, and goats) to feed, speedboat races to watch, and obviously much love and laughter. "Hanging out" with the grandkids is a treat. Juanita also likes to travel - cruises to Cozumel, Nassau, Alaska and a trip down the Oregon Coast Pacific Highway. Occasional trips to Las Vegas are fun and relaxing.

Her eyes also light up when she talks about the Junior Master Gardener Program. The first day she went to Nolanville to work with children for their science day, she says she was "hooked." She finds that the children are usually very excited about planting and growing and that seeing their faces when they "get it" or just enjoying their enthusiasm and sense of fun is so very rewarding. Juanita feels that working with underprivileged children to teach them about gardening and nutrition would be extremely worthwhile and gratifying. She and her sister, Patsy, have really guided and worked with the Junior Master Gardeners and have made the program a huge success. (Note the teachers who now want to become Master Gardeners.)

Juanita also enjoys working in her own yard - and wishes she had more time to do that! She has mostly flowers and especially roses, her favorite. She also likes native plants and grasses. She finds gardening relaxing and was so excited when her hydrangea finally bloomed, she called her sister to tell her. Only another gardener would understand that!

Master Gardeners Herbs

# You Say Epizote, I say Epazote

**Christine Powell**

Recently, I was trying to find out what our local herbs were. I thought there must be some, after all, the Native Americans must have used something to flavor their food, surely! I was just curious since we are all well versed about Mediterranean herbs and finally I came across Epizote/ Epazote (pronounced: eh-puh-ZOE-tay). I thought I would share my findings with you all.

*The leaves of a young Epizote plant found at a local Farmers Market in Georgetown.*



When the ancient Aztecs wanted to flavor their beans, they often used the herb epizote (*epizotl* in their language, Nahuatl). Not only does it impart a distinctive taste reminiscent of liquorice, but it is reputed to reduce the formation of internal gas from the beans. Epazote remains a favorite for that purpose throughout Mexico and the adjacent lands today, and has retained its Aztec name (unlike *epahuxtili*, the beans themselves). The plant *Dysphania ambrosioides* is also known as Jesuit's Tea, Pigweed, West Indian Goosefoot, Hedge Mustard, Jerusalem Parsley, Pazote, Mexican Tea, or Herba Sancti Mariae. It also known as wormseed because of its effects on preventing worms in animals. It is often added to animal feed for this reason. Another of its names, skunkweed, perhaps says it all! '*Epal'* and '*tzotl'* meaning smelly animal. Mexican tea is a nicer name and I think I will stick with that! Epazote is a native of a wide range from central Mexico into South America, but it is cultivated (and sometimes escapes to become a weed) over much of America and Europe.

*Long known and described this drawing is from the late 1800's. Why don't we use this herb more nowadays?*



When classifying Epazote you find that it is from the Chenopodiaceae family which also includes lambsquarters, spinach, beets, chard, and quinoa. Moving to the genus *Chenopodium* (recently changed to *Dysphania*) meaning "goose foot" and, finally, the species is *ambrosioides* meaning "food of the gods" probably referring to the strong scent!

Epazote is an annual or short-lived perennial plant, growing to almost four feet tall with irregular branches and sharp-toothed oblong 5-inch leaves up to five inches long. The small green flow-

ers are produced in a branched panicle at the end of the stem. The small fruits produce thousands of tiny black seeds that can spread epazote fairly quickly. The plant is easy to grow in full sun. The seeds germinate in about 7-14 days and be ready to harvest in 45-65 days. Since it is native to tropical and subtropical regions, epazote prefers sandy, loamy soil over dry arid conditions.

The herb can be used for flavoring, and is popular in a wide range of traditional dishes from the Mexican interior (including its most common use in black beans). Also with a wide variety of sauces in all but west-central and northern Mexico. Epazote has also be used as a green vegetable but can be toxic. The famous and award-winning chef Rick Bayless uses Epazote extensively in his recipes.

On our side of the border, it is perhaps best known for its medicinal uses. One, of course, is to fight gas. It has also been used in the treatment of a wide range of ailments including female troubles, malaria, chorea, hysteria, catarrh, and asthma.

However, its major medicinal use derives from the fact that an oil found in the plant (particularly the seeds) fights internal parasites; hence the name "Wormseed." This effect may have added to its popularity among the Aztecs. Oil of *Chenopodium* and its active ingredient, ascaridole, was once a standard American medical treatment, but is no longer used much by physicians because heavy doses can cause substantial side effects. Herbalists recommend use only of the leaves, rather than the seeds, because they contain less of the toxic agent, and suggest that it might be wise to avoid using epazote when pregnant.



Robert H. Mohlenbrock @ USDA-NRCS PLANTS Database / USDA NRCS. 1992. Western wetland flora: Field office guide to plant species. West Region, Sacramento.



I found some in a four inch pot at my local Farmers Market in Georgetown but it can also be found in some Mexican groceries, growing wild in many places, or even cultivated in your own garden. If you do find it in Mexican groceries, epazote can be rather wilted. It will still be good for cooking. Once you picked it place it in the refrigerator, in a glass with water, as you would cut flowers, loosely covered with a plastic bag; or in the refrigerator, rolled in a very lightly dampened towel, in a plastic bag. I needn't have bothered buying it as it happens as I think I may have found some growing wild at the bottom of the garden! I guess I will key it out first and then be very careful how I use it.



Although not a native plant it is hard to determine when Epazote was introduced to the US (and the rest of the world).  
Distribution: *Chenopodium ambrosioides* L.

Treats from the Master Garden

# Green Cabbage

Margaret Seals

If the names Solid Blue, Blue Vantage or Bravo ring a bell with you, chances are you have already experienced the three most common varieties of green cabbage grown in Williamson County. Green cabbage, since it is frost hardy, can be added to your fall/ winter garden in Central Texas after the first of September each year by seeding or transplants. For seeds, a planting depth of about 1/2 inch is optimum. The temperature for germination of seeds is between 45-95 degrees F., and the seedlings usually emerge in 7-12 days. Green cabbages need about 12-18 inches between plants and 30-36 inches between rows for proper growth. Crop rotation is necessary for growing cabbage successfully. Two, three or even four years between growing cabbage (and its relatives such as broccoli and cauliflower) in one location can be beneficial to replenish the soil. A ph between 6.0 – 7.5 is perfect for green cabbage. Green cabbage is a slow maturing vegetable, taking around 80-120 days to maturity, with optimum growing temperature around 60-65 degrees

F. An army of pests love green cabbage, but the most common are the cabbage loopers and cut worms. Diatomaceous Earth is a good treatment for cut worms, and Bt can be used successfully to treat cabbage loopers. Green cabbages can be heavy feeders of N and K, so a side dressing with a light fertilizer or compost tea every other week is indicated when the leaves begin to form cups and start making a head. Green cabbage likes a moist soil. Mulching around the emerging seedlings or transplants is highly desirable to keep the soil moisture constant. Following harvest, the heads can be stored in the refrigerator for a couple of weeks without damage.

Green cabbage is good to eat hot or cold. Cabbage slaws are the usual way green cabbage is served cold, and a common recipe for hot cabbage is green cabbage leaves stuffed with meat in a tomato sauce. Following are two of my favorite ways to eat green cabbage.

## Cabbage and Fennel Slaw

(From *Martha Stewart's Everyday Food Magazine*)

- 2 T sherry vinegar or cider vinegar
- 1 T olive oil
- 1/4 C raisins
- Salt and pepper to taste
- 1 Fennel bulb, with fronds
- 1/2 Head green cabbage (about 1 lb)
- 1/2 C walnuts, chopped and toasted

In a medium bowl, combine vinegar, oil and raisins. Season mixture with salt and pepper.

Cut off and reserve 1/4 C leafy fennel fronds, discard stalks. Using the large holes of a box grater, coarsely grate fennel bulb and cabbage. Transfer fennel bulb and cabbage to bowl with dressing. Transfer fennel fronds and walnuts to bowl with dressing. Toss to combine. Add more seasoning to taste, if needed. Chill and serve cold.



## Stuffed Cabbage Rolls

(From *Cook's Country Magazine*)

- 1 medium head of green cabbage
- 1 T vegetable oil
- 1 onion, chopped fine
- 3 garlic cloves, minced
- 1 t. ground ginger
- ½ t ground cinnamon
- ¼ t ground nutmeg
- 1 (28 oz) can tomato sauce
- ¼ C packed, light brown sugar
- 3 T red wine vinegar
- Salt and pepper to taste
- 2 slices hearty white bread, torn into pieces
- ½ C milk
- ¾ lb 85 % lean ground beef
- ¾ lb uncooked bratwurst, casings removed

Adjust the oven rack to middle position and heat oven to 375 degrees. Place cabbage in a large bowl, wrap tightly with plastic and microwave until outer leaves of cabbage are pliable and translucent, 3-6 min. Using tongs, carefully remove wilted outer leaves; set aside. Replace plastic and repeat until you have 15 to 17 large, intact leaves.

Heat oil in Dutch oven over medium high heat until shimmering. Cook onion until golden, about 5 minutes. Add garlic, ginger, cinnamon and nutmeg and cook until fragrant, about 30 seconds. Transfer half of onion mixture to small bowl and reserve. Off heat, stir tomato sauce, sugar, vinegar, ½ t salt and ¼ t pepper into pot with remaining onion mixture until sugar dissolves.

Pulse bread and milk in food processor to smooth paste. Add reserved onion mixture, beef, bratwurst, ½ t salt and ¼ t pepper and pulse until well combined, about ten 1-second pulses.

Trim the rough ribs from cabbage leaves, and roll 2 heaping tablespoons of meat mixture into each leaf, arranging rolls, seam-side down in a 13 x 9 inch baking dish. Pour sauce over cabbage

Cabbage, shredded, boiled 1.00 cup, 150.00 grams, 33.00 calories				
Nutrient Amount	DV %	Nutrient	Density	World's Healthiest Food Rating
vitamin K	73.35 mcg	91.7	50	excellent
vitamin C	30.15 mg	50.3	27.4	excellent
dietary fiber	3.45 g	13.8	7.5	very good
manganese	0.18 mg	9	4.9	very good
vitamin B6 (pyridoxine)	0.17 mg	8.5	4.6	very good
folate	30.00 mcg	7.5	4.1	very good
omega 3 fatty acids	0.17 g	7.1	3.9	very good
vitamin B1 (thiamin)	0.09 mg	6	3.3	good
vitamin B2 (riboflavin)	0.08 mg	4.7	2.6	good
calcium	46.50 mg	4.7	2.5	good
potassium	145.50 mg	4.2	2.3	good
vitamin A	198.00 IU	4	2.2	good
tryptophan	0.01 g	3.1	1.7	good
protein	1.53 g	3.1	1.7	good
magnesium	12.00 mg	3	1.6	good

rolls, cover with foil, and bake until sauce is bubbling and rolls are heated through, about 45 minutes. Remove foil and bake, uncovered, until sauce is slightly thickened and cabbage is tender about 15 minutes. Serve hot.

“The 10 Commandments contain 297 words. The Bill of Rights is stated in 463 words. Lincoln's Gettysburg Address contains 266 words. A recent federal directive to regulate the price of cabbage contains 26,911 words.”

The botanical name for cabbage is *Brassica oleracea capitata*. The English name cabbage comes from the French *caboché*, meaning head, referring to its round form.

Taking only three months growing time, one acre of cabbage will yield more edible vegetables than any other plant.

Cabbage has been cultivated for more than 4,000 years and domesticated for over 2,500 years. Although cabbage is often connected to the Irish, the Celts brought cabbage to Europe from Asia around 600 B.C. Since cabbage grows well in cool climates, yields large harvests, and stores well during winter, it soon became a major crop in Europe.

The world's largest cabbage is credited to William Collingwood of County Durham, England, whose prized cabbage in 1865 weighed in at 123 pounds.

It was French navigator Jacques Cartier who brought cabbage to the Americas in 1536.

Early cabbage was not a full-bodied head but rather a more loose-leaf variety. The head variety was developed during the Middle Ages by northern European farmers.

President's Column  
**Wayne Rhoden**



Hello Master Gardeners!

After many months of drought, some of us finally received 2 1/2 inches of rain in the last week of August, also a slight cooling in the temperature but not enough to really help. This has been a tough year for all of our plants and vegetables but is a good time to find out which plants really are drought tolerant. If they are surviving at this time they must be ones to keep in your landscape.

Our new class is under way and the students are being bombarded with more knowledge than they can absorb in the 14 weeks the class is conducted. We all went through that same feeling that we would never be able to know as much as some of the certified members, but they must realize it takes time to become knowledgeable about many different subjects. It will come to those who really want to volunteer to share the wealth of information they are receiving in the classes.

We finally got the vegetable garden started in mid August with a temporary watering system and found another surprise after the planting. There really are deer around the Extension office. We know because they ate our tomato plants and some other vegetables that the committee had worked so hard to plant. I guess we are in the market for a deer fence now, especially before we plant our roses in the Earthkind Rose Garden. We know that roses are candy to deer. Hopefully we will get the permanent irrigation system installed this week.

We are starting the greenhouse propagation process this month to get material for our plant sales in March of 2010 and will need help from all of our greenhouse committee to make it happen. I will be counting on those members that worked in the greenhouse in the past years to come help teach the students so they can get the mandatory hours for their certification. I know it is warm in the greenhouse this time of year but it is not unbearable because the cooling system works pretty well and the humidity is so low outside.

My thanks to all of our Board of Directors who help steer this association and have made it successful in the two years since we were formed. We have come a long way.

Happy gardening,  
 Wayne

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## September 28 – October 2, 2009 Master Volunteer Entomology Specialist Training

### Texas AgriLife Extension Service Montgomery County Office, Conroe, TX

Hosted by Dr. Paul R. Nester, Extension Program Specialist, Houston/Metro area, and the Montgomery County Master Gardeners.

- Registration fee of \$300.00 includes collecting kit with lots of goodies; lectures; Extension bulletins; 3 lunches, 1 dinner, snacks & drinks
- Transportation and lodging is on your own
- Course is limited to 25 applicants; deadline is July 18, 2009

Contact Paul Nester at [PNester@ag.tamu.edu](mailto:PNester@ag.tamu.edu) or 281-855-5639 with any questions.

[Registration material](#)



**THE CITY OF FARMERS BRANCH AND CHAMBERSVILLE TREE FARMS CELEBRATES ROSES AT ROSEDANGO 2009**

The City of Farmers Branch and Chambersville Tree Farms announce a weekend celebration of roses at the second annual RoseDango to be held October 17 and 18, 2009 in the cities of McKinney, Chambersville and Farmers Branch, Texas. RoseDango features guest speakers Marilyn Wellan and Stephen Scanniello, this year's Great Rosarians of the World (GROW) honorees, as well as Mike Shoup author and owner of the Antique Rose Emporium and Dennis Jones, President of the Fort Worth Rose Society.

Actively involved in local, national and international rose societies, Mr. Scanniello, author and current president of the Heritage Rose Foundation and Ms. Wellan, past president of the American Rose Society, have been honored for their work promoting the love of roses and bridging the gap between two major approaches in the hobby, Modern Roses and Old Garden Roses. Mike Shoup, a Texas Rose Rustler, has long promoted the preservation and use of Old Garden Roses. As the former Rose Gardener at the Fort Worth Botanic Gardens, Dennis Jones has cared for over 2,000 roses and promotes an earth-friendly approach to rose gardening.

This year's RoseDango celebration provides rosarians and rose enthusiasts the opportunity to exchange information and see firsthand the rose gardens in Farmers Branch and Chambersville Heritage Rose Garden. The weekend will kick-off Saturday with presentations at the McKinney Performing Arts Theater, followed by tours of the Chambersville Heritage Rose Garden. On Sunday the event will move south to Farmers Branch and will feature garden tours, a rose pruning clinic by Mike Shoup and much more. The event concludes with the Dallas Rose Society's Fall Rose Show at the Farmers Branch Senior Center. The show will be open to the public from 1 p.m. to 4 p.m.

This is an excellent opportunity for Master Gardeners to see what is thought to be the largest environmental horticulture research in the country. The National Earth-Kind Trial Rose Garden in Farmers Branch is the only garden to evaluate all 100 cultivars under consideration for future Earth-Kind designation on a national level. Under the direction of Dr. Steven George this project has included many volunteer hours including those of Master Gardeners. Also include in the Farmers Branch tour is an Earth-Kind demonstration garden that exhibits the use of perennials and annuls with the roses.

The Chambersville Heritage Rose garden is a study garden of the Heritage Rose Foundation and has been designated by the Heritage Rose Committee of the World Federation of Rose Societies as an important world collection of historical roses. The garden features over 300 different varieties of rare and unusual China, Tea, Noisette and Hybrid Musk roses growing in a natural meadow setting utilizing the Earth-Kind method of growing.

Visit [www.rosedango.com](http://www.rosedango.com) for more information or Contact: Pam Smith - 972.919.2625 - [pam.smith@farmersbranch.info](mailto:pam.smith@farmersbranch.info) or Carol Edwards - 214.250.3023 - [events@chambersvilletreefarms.com](mailto:events@chambersvilletreefarms.com)



**The Sixth Edition of the Texas Master Gardener Handbook is now available!**

**New features include:**

**Chapter 3 Earth-Kind Landscaping**

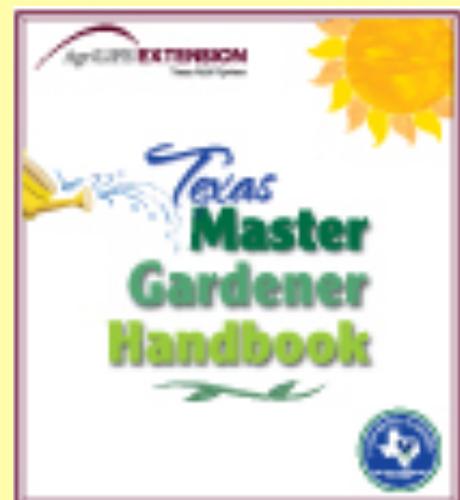
**Weeds and weed management**

**Updated plant lists**

Master Gardeners can purchase the latest edition through their Master Gardener Coordinators at a price of \$43.00.

The 6<sup>th</sup> edition —Text Only|| (no binder or tabs) can be purchased for \$28.00.

Master Gardeners, please contact your MG Coordinator, Wayne Rhoden to order this edition, publication number B-6217T.



## Master Gardener Advanced Training

# NPSOT Workshops and Symposium

### Fredericksburg

The Fredericksburg Chapter of the Native Plant Society of Texas will sponsor Wildscapes Workshop, at the Fredericksburg United Methodist Church, 1800 N. Llano Street. This is an educational seminar on perennials, produce and pollinators, on Saturday, September 12, 2009.

Emphasis will be on using more native (and approved adapted) plants in your landscape with the goal of creating an environment that is practical, sustainable, and irresistible to our essential pollinators. In addition to a series of four seminars, the workshop includes educational exhibits and a book sale. A plant sale will offer many of the specimens featured in the presentations. Following the workshop is a self-guided tour of three area gardens representative of the Grow it Yourself presentation.

Sustainable Landscapes, presented by Katherine Crawford.

This is Sustainability 101. Learn what constitutes a sustainable landscape along with the benefits of such a project. Ways to create a sustainable landscape or improve the sustainability of your current garden will be explored, including information on what plants are desirable, soil type, water needs, and when and how to use appropriate fertilizers and pesticides.

Edible and Medicinal Native Plants, presented by Janis Merritt.

Some of our beautiful native plants are not only perennial but also edible. Some natives can even have holistic medicinal applications. Learn which natives are useful as food sources, and how to recognize which plants are dangerous to eat and should be avoided.

Pollinators and Plants They Seek Out, presented by Dr. Molly Keck.

We'll identify our primary pollinators and discuss why they are so essential to our gardens (and to us). Material covered includes what kind of habitat is necessary to attract and sustain pollinators, and which plants are dependent on pollinators. Additionally, we will learn what honeybees need to produce honey and what we can do to help.

Grow-It-Yourself: Mixing Edible Plants in Your Landscape, presented by Daphne Richards.

Tight economic times have helped make Grow-It-Yourself one of the fastest growing garden trends in years. Even first-time gardeners are expressing interest in growing their own vegetables, herbs, and even cut flowers. Native perennials, too, are experiencing resurgence in popularity because of their hardiness and longevity, while container gardening and creative use of small spaces continue as practical ways to integrate edibles into the existing landscape.

### NPSOT Annual Symposium

October 15-18, Wichita Falls, Texas

The Howard Johnson Plaza hotel, 401 Broad St., Tel. (940) 766-6000 will be the main site of the conference. Registration Brochure with information Click [HERE](#).

### Houston

The Houston Chapter of the Native Plant Society of Texas will sponsor their 12th Wildscapes Workshop celebrating the beauty of our earth with an educational seminar on native plants, nature, and wildlife, on Saturday, September 26, 2009.

Emphasis will be on using native plants to create more biodiverse environments that are practical, sustainable, and hospitable for birds, butterflies and important pollinators. There will be four speakers and the workshop will include exhibits showing examples of naturally landscaped homes, other educational exhibits, doorprizes, native plant sale, and a book sale.

The workshop will be held at the Houston Community College West Loop Campus, 5601 West Loop South at Pin Oak Park. You may download a registration form [here](#). A continental breakfast, refreshments, and box lunch are included.

Prairie Rescues, by Jaime Gonzales, Naturalist, Katy Prairie Conservancy

The Katy Prairie Conservancy, Houston Audubon, and other environmental and government agencies, held native plant rescue events at Saums Road Prairie during the summer of 2008. The goal was to relocate native grasses and wildflowers from the Saums Road Prairie before its destruction for a development project. Plants from the prairie were transported to sites across the City of Houston to create small pocket prairies to demonstrate and educate residents on the value of coastal prairies in our native ecosystem. Each pocket prairie has become a wildlife magnet for butterflies, dragonflies, and other insects beneficial to birds.

Great Plants for a Wildscapes Landscape, by Mark Bronstad.

Mark is a plant propagator and grower for Doremus Wholesale Nursery in Warren, Texas, located at the edge of the Big Thicket. Many of the native plants in our sale are propagated and grown at Doremus. Mark will give a presentation on plants that will be available at the native plant sale, and he can answer questions about propagating and growing native plants.

Local Butterflies & Flight of the Monarch, by Farrar Stockton.

Every fall, monarch butterflies migrate across eastern North America to remote sites in central Mexico. Their long flight is fuelled only by nectar from flowers that are blooming on the way. Join us to hear more about monarch migration and butterflies of the Houston area, and what you can do to make sure butterflies will be here for the enjoyment and delight of future generations.

Native Pollinators, presented by Jack Brady,

Jack will identify pollinators and discuss their importance to our gardens and our wellbeing. Wild native bees, numbering more than 4,000 species in North America, contribute substantially to pollination when their habitat needs are met. More than 80 percent of the world's 250,000 flowering plants depend on pollinators, and from 15 to 30 percent of the food eaten throughout the world comes from plants that need to be pollinated. Jack will describe habitats that are needed to attract and sustain pollinators and he will tell us how we can help.

## Master Gardeners Day Out

**National Wildlife Refuge Week**

Balcones Canyonlands National Wildlife Refuge invites you to participate in free activities on Saturday October 10 at Doe-skin Ranch on RR 1174. Guided walks & programs include:

- BIRDS & BUTTERFLIES**- for Beginners walk - 8:30 – 10:00 am \*binoculars and identification books provided.
- NATURE PHOTOGRAPHY**- digital & 35 mm workshop Register ahead. 8:30 – 10:30 am. Bring your camera manual & camera. For Adults.
- PATRIOTIC PLANTS**- casual walk to discover how native plants contributed to the birth of our nation. 9:30 am- 11:30 am.
- ANIMAL MIGRATIONS**- Biologist Chuck Sexton will lead a walk focusing on all movements and migrations of ani-mals—on very large & small scale- which can be observed in the fall. 10- noon
- NATURE WALK**- Learn about ferns, flowers, fire, frogs & fossils! 10:30 am - noon & 2:00 pm – 3:30 pm
- SPIDER WALK**- 11 am – 12:15 pm and 2:30- 3:45 pm.  
Sign up ahead to share amazing facts about spiders w/ "Spider Joe" Lapp!
- SNAKES ALIVE!**- Live snake program 12:15 pm- 1 pm.
- MONARCH MANIA!**- Author & children's performer Lucas Miller celebrates nature & the migration of Monarch butter-flies with music & puppetry. Prepare to laugh & learn! 1:15 pm- 1:45 pm
- DRAGONFLIES & DAMSELFLIES**- Walk- 1pm- 2:30 pm Look for different species found at the creek and pond!
- NATIVE GRASSES**- the Big 4 & a Few More Walk! 3-4 pm

**at your leisure:**

- Look for migrating hawks!
- Enter the Butterfly tent!
- Buy bird nest boxes- 9 am until supply lasts. \$5 each.
- Creatures from the water- View bizarre water creatures from 10 am- 4 pm.
- Help capture the creatures from 9-10 am.
- Catch Monarch Butterflies & tag them if Monarchs are present.

For more info call Rob Iski at 512-339-9432 x 70

- Groups: please call in advance to register
- Times & Activities subject to change

***Balcones Canyonlands National Wildlife Refuge***

Balcones Canyonlands National Wildlife Refuge offers some of the best birdwatching and habitat left in Texas for two endangered song-birds - the black-capped vireo and the golden-cheeked warbler. Less than an hour from Austin, visitors can step off the streets into the wilds of the Texas Hill Country.

Imagine planting one foot in the Great Plains and the other in the Gulf Coast. When you enter Balcones Canyonlands NWR, you stand at the juncture of these two geographic regions. Add the unusual limestone geology of the Edwards Plateau and it's not surprising to find plants and animals adapted to live here and nowhere else.

The more than 525 plant species include the Texabama Croton, discovered here only in 1989. At least a third of the state's threatened and endangered species live or move through the area.

***Getting There . . .***

Headquarters is located on FM 1431. If you are coming from the Austin area go west through Lago Vista. The office is five miles from the Lago Vista High School. If you are coming from the west, the office is one mile east of the intersection with Cow Creek Road. If you don't want to get on the 183A Toll Road and you're going north on U.S. 183 from Austin, get off at the Lakeline Mall Drive exit. Continue north on U.S. 183, then west on 1431.

# Williamson County Master Gardener Association Officers for 2008

## Officers:

Wayne Rhoden, President:	<a href="mailto:mgardener@suddenlink.net">mgardener@suddenlink.net</a>	(512) 869-8016
Juanita James, Vice-President	<a href="mailto:jjames20@sbcglobal.net">jjames20@sbcglobal.net</a>	(512) 341-7116
Nancy Moore, Treasurer:	<a href="mailto:nancy3610@att.net">nancy3610@att.net</a>	(512) 215-9697
Jeanne Barker, Secretary:	<a href="mailto:jubarker@yahoo.com">jubarker@yahoo.com</a>	(512) 608-1296

## Standing Committees/Chairpersons:

Programs/Education:	Paul Lawrence	<a href="mailto:pwlawrence@austin.rr.com">pwlawrence@austin.rr.com</a>	
Communications: (Newsletter, Website & Publicity)			
	Christine Powell	<a href="mailto:xtinepowell@verizon.net">xtinepowell@verizon.net</a>	(512) 863-8250
Membership/Volunteer Opportunities:			
	John Papich	<a href="mailto:texasjayp@yahoo.com">texasjayp@yahoo.com</a>	(512) 863-4098
Awards:	Margaret Seals	<a href="mailto:marjim@suddenlink.net">marjim@suddenlink.net</a>	(512) 863-4127
Class Training/Facilitation:			
	John Papich	<a href="mailto:texasjayp@yahoo.com">texasjayp@yahoo.com</a>	(512) 863-4098
Jr. Master Gardener Coordinator:			
	Patsy Bredhal	<a href="mailto:pbredahl@austin.rr.com">pbredahl@austin.rr.com</a>	(512) 217-0693
	Juanita James	<a href="mailto:jjames20@sbcglobal.net">jjames20@sbcglobal.net</a>	(512) 341-7116
Fundraising:	Janell Crego	<a href="mailto:jgcrego@verizon.net">jgcrego@verizon.net</a>	
Greenhouse Manager:			

## Ad Hoc Committees:

New Class:	John Papich	<a href="mailto:texasjayp@yahoo.com">texasjayp@yahoo.com</a>	(512) 863-4098
Newsletter Editor:	Christine Powell	<a href="mailto:xtinepowell@verizon.net">xtinepowell@verizon.net</a>	(512) 863-8250
Newsletter Layout:	Christine Powell	<a href="mailto:xtinepowell@verizon.net">xtinepowell@verizon.net</a>	(512) 863-8250
Webmaster:	Christine Powell	<a href="mailto:xtinepowell@verizon.net">xtinepowell@verizon.net</a>	(512) 863-8250

WCMG Website: <http://grovesite.com/mg/wcmg>  
 Mailing address: 3151 Inner Loop Road, Suite A, Georgetown, TX 78626

## Monthly Meetings

Williamson County Master Gardeners hold monthly meetings at the Williamson County Extension Office, 3151 SE Innerloop Road, Suite A, Georgetown on the second Monday of each month at 6:00pm. Master Gardeners and the public are welcome to attend.