



Master Gardeners hear it...

THROUGH THE GRAPEVINE

UT Extension Service The University of Tennessee Institute of Agriculture

Volume 14, Issue 1

January 2007

MASTER GARDENERS OF HAMILTON COUNTY

President's Letter

Happy New Year, everyone! It is always great to start a new year. You can toss out those old undone resolutions and start fresh with new ones. It does not matter if your new resolutions are same as last years; it is still a new year. However, try to go easy on yourself and make simple resolutions. My resolution for 2007 is very simple. This year I want to share my yard with others...other creatures that is. Simple, right? - Food, Shelter, Water. Mike and I (mostly Mike!) have made some good headway in renovating the yard. But, I never like to do things halfway. I can't imagine a greater satisfaction than having a back-

yard that is considered a "top 10 destination" for birds, butterflies and yes, even squirrels. So, to that end, we have planted plenty of plants for shelter and are adding more butterfly host plants in the cut and vegetable gardens. We also have a variety of bird houses and birdbaths (and no, you can never have too many). Next, we just need to provide food; lots of it. So, my best Christmas present was actually for the birds. Birdfeeders! Mike put up what we have named "The Food Court" in the backyard. It is a bird feeding system. There are 7 different birdfeeders. What fun! I can't believe the variety of birds and other

wildlife that have stopped by already. January and February can be really dreary, but now, I look forward everyday to seeing the plethora of visitors that are enjoying my yard. Hey, does that mean I kept my New Years resolution and can relax the rest of the year? I think this might be a first! And it was so fun and easy! Seriously, when you invite wildlife to your yard you experience nature at its best. I hope to see all of you at the Membership Meeting this month [January 18th]. The Master Gardeners have a great year to look forward to. So, don't miss it!
~Stephanie Payne

January Master Gardener Meeting, Jan 18, 6:30pm

The January membership meeting will be held at the Ag Center on the third Thursday of the month at 6:30 p.m. Gene Hyde will be our

January speaker. Gene will cover BMP for Saving Trees on Construction Sites. BMP stands for Best Management Practices. Gene re-

ceived a Master of Forestry, LSU, in 1973. He has served on numerous Forestry Councils and has received several forestry awards.

In a Nut Shell:

Upcoming Events	2
Tom's Tidbits	2
Upcoming Events	2
Tom's Tidbits continued	3
News Items	4,5



Upcoming Events

- **January 8th-April 17th, 2007 Master Gardener Classes.** Current members are invited to attend each class. Two Classes: Monday Nights: 6:00pm to 9:00pm **Or** Tuesday Mornings: 9:00am to Noon
- **January 18th, Master Gardener Membership Meeting,** 6:30 at the AG Center.
- **January 26th, "How to Grow a Beautiful Lawn",** at both Holcomb locations (Ft Oglethorpe/HWY 153) at 6:30. Classes are free to their Garden Club members (you join by merely asking), but reservations are required.

When weeding, the best way to make sure you are removing a weed and not a valuable plant is to pull on it. If it comes out of the ground easily, it is a valuable plant.

~Author Unknown

JANUARY 2007

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8 6-9 pm Introduc- tion to Master Gardeners	9 9-noon Introduc- tion to Master Gardener	10	11	12	13
14	15 6-9 pm Soils	16 9-noon Soils	17	18 6:30 Member- ship Meeting	19	20
21	22 6-9 pm Botany	23 9-noon Botany	24	25	26 6:30 Lawn Class at Holcomb's	27
28	29 6-9 Vegetable Gardening	30 9-noon Vegetable Gardening	31			

Tom's Tidbits

Welcome to the New Class of

Master Gardeners

I waited until the two new Master Gardener classes met for the first time to write this message. What an outstanding group of Master Gardener Interns! They have so many talents that will be useful to enhance the Master Gardener program and all of the many projects. I see several potential leaders who will guide the direction of the program in years to come. There are numerous students with people skills who can organize to get projects completed. Everyone is

dedicated to complete their volunteer hours. They want to make a difference in the Chattanooga community.

I have just one suggestion for all of the new class members. Enjoy yourself as a volunteer. Have fun and everyone will benefit. The graduated Master Gardeners already know this is the key to success. They seldom miss an opportunity to have a good time along with being a dedicated volunteer. This summer everyone got pretty drenched, setting up the impressive display at the County Fair.

Continued on Page 3

Upcoming Events

•**February 1st, Master Gardener Board Meeting**, 6:00 at the AG Center.

•**February 2nd, "How to Grow Gorgeous Roses Locally"**, at the HWY 58 Holcomb location at 6:30.

Classes are free to their Garden Club members (you join by merely asking), but reservations are required.

•**February 9th, "How to Grow Gorgeous Roses Locally"**, at the Ft Oglethorpe Holcomb location at 6:30.

Classes are free to their Garden Club members (you join by merely asking), but reservations are required.

•**February 15th, Master Gardener Membership Meeting**, 6:30 at the AG Center.

•**February 24-25th, Chattanooga Antiques and Garden Show**

Chattanooga Choo Choo Grand Central Station.

Over 35 exhibitors will have for sale antiques, exotic plants and garden accessories. All proceeds from the show benefit the Houston Museum's outreach programs.

Cost: Show admission \$15 for all three days; For more information, please contact: The Houston Museum at 423-267-7176.

FEBRUARY 2007

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 6:00 Board Meeting	2 6:30 Rose Class at Holcomb's	3
4	5 6-9 pm House-plants	6 9-noon IMP/ Wildlife	7	8	9 6:30 Rose Class at Holcomb's	10
11	12 6-9 pm IMP/ Wildlife	13 9-noon Containers & Herbs	14	15 6:30 Member-ship Meeting	16	17
18	19 6-9 pm Ornamentals/ Containers	20 9-noon Spring Express	21	22	23	24 Antiques and →
25 Garden Show →	26 6-9 pm Perennials	27 9-noon Fruit	28			

Tom's Tidbits *continued*

No one cared a bit about wet hair and soggy feet. There was plenty of hot coffee and food. Everyone laughed and joked until the sun came out. The exhibit went up on time and it was a rousing success for one full day. Then it rained again. Back came the assigned groups to fold up the displays, cart off the plants and clean up the area. Back came the laughter, fun and friendships. Just like all the Master Gardener events. Everyone enjoyed the situation. They chose the wet, dripping raincoats. Master Gardeners often choose a chilly morning garden project over sleeping in on Saturdays. Not every Saturday, but a few to teach

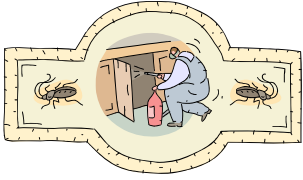
others the beauty of gardening. Share your skills and energy by getting involved as soon as possible in something you will enjoy.

You can meet all the new class members when they come to the regular meeting on January 18th at 6:30pm at the Extension Center. Gene Hyde will give a speech on how to grow the best trees in Chattanooga. Gene is our Chattanooga Urban Forester. He is an excellent speaker and will show many examples of the right and wrong ways to treat city trees. Come and ask many questions.

For Masterful Gardens

Tom

Most Widely Used Organic Pesticide Requires Help to Kill



First discovered in 1911, Bacillus thuringiensis was developed as a commercially important insecticide in the 1950s.

The world's most widely used organic insecticide, a bacterium known as *Bacillus thuringiensis* or Bt for short, requires the assistance of other microbes to perform its insect-slaying work, a new study has found. A team of researchers from the University of Wisconsin-Madison reports that without the help of the native bacteria that colonize the insect gut, Bt is unable to perform its lethal work. The new insight into the workings of one of the most important and environmentally friendly weapons in the human arsenal against insect pests has significant implications not only for the control of insects in agriculture, forestry and human health, but for understanding microbial disease in humans and other animals. "The take-home message is that we've shown that the mechanism of killing for *Bacillus thur-*

ingiensis is facilitated by the normal gut community," says the lead author of the study, Nichole Broderick. "This is a mechanism that was not previously known."

First discovered in 1911, *Bacillus thuringiensis* was developed as a commercially important insecticide in the 1950s. It is by far the most widely used natural agent to control important insect pests, and the genes that make Bt's toxic proteins have been engineered into numerous crop plants. Transgenic crops using the bacterium's genes are the most prevalent of any engineered plants, and are planted on millions of acres in the United States alone. Although Bt and the toxic proteins it makes have been studied for decades, how the microbe goes about killing the insects it infects has been assumed to be a simple toxin-

mediated disruption of the cells that line the insect gut. The damaged cells, according to the prevailing hypothesis, lead to starvation. An alternative hypothesis holds that the spread of the bacterium in infected insects leads to blood poisoning and death.

Virtually all animals, including humans, depend on the interplay of numerous species of bacteria that, beginning at birth, routinely colonize the stomach and intestines. The larvae of moths and butterflies have anywhere from seven to twenty species of gut bacteria. Humans have between five hundred and one thousand species of micro flora that take up residence in the intestinal tract. "In moths and butterflies, the complexity is much lower than in mammals, and even some other insects," Broderick explains. The study was conducted using antibi-

Continued on Page 5

Organic Pesticide-Continued

otics to clear all of the native bacteria that colonize the gut of gypsy moth caterpillars. Exposed to Bt, the caterpillars whose intestinal tracts had been cleared of their native microbial communities showed none of the agent's toxic effects. When the insect's microbial gut flora were reestablished, Bt's insecticidal activity was restored. To further test their results, the Wisconsin team used a strain of live *E. coli* engineered to carry the Bt toxin to infect caterpillars, a lethal treatment whether or not the insect gut

contained its normal complement of microbes. However, if the engineered *E. coli* was killed before administration, it only killed those caterpillars whose microbial gut flora were intact. "The significance of the microbial community has been overlooked," Broderick asserts. "Ultimately, this is a toxin-mediated septicemia (blood poisoning) modulated by the gut community." The exact role played by the microbes to promote the Bt toxin's lethal effects remains unknown.

The upshot of the new work may have

immediate application in designing strategies to manage insect pests by enhancing the killing effects of BT using indigenous insect gut microbes or other bacteria known to promote blood poisoning. "The work also raises the possibility that the genes encoding the (Bt) toxins could be deployed more effectively in transgenic crops by exploiting the role of insect-borne bacteria that enhance insecticidal activity," concludes the research team. (UW-M Press Release, 9/25/06) by Gene Burgess

What a man needs in gardening is a cast-iron back, with a hinge in it. ~Charles Dudley Warner, *My Summer in a Garden*, 1871

Daylily group: Don't confuse *H. fulva* with noninvasive types

Several states and agencies list [*Hemerocallis fulva*](#) as invasive, according to American Hemerocallis Society. Don't confuse this species, also called tawny daylily, common orange daylily, roadside ditch lily and tiger lily, with non-invasive clump-forming hybrid daylily cultivars. The thousands of clump-forming selections make excellent garden plants and don't form large colonies over time, like *H. fulva*.



MASTER GARDENERS OF HAMILTON
COUNTY

PO BOX 25194
Chattanooga, TN 37422

Phone: 423-855-6113
Fax: 423-855-6115
Email: Garden@MGHC.org



Board of Governors

2006-2007

Master Gardener Officers:

President– Stephanie Payne
Vice President– Dee Clark
Secretary– Ron Bohrer
Treasurer– Jane Elmore
Past President/Advisor– Sue Henley
Master Gardener Coordinator–
Tom Stebbins
Advisor- Sue Henley
New Class Representative-Bud Hines
Certification Officer-Gretchen Rominger
2 Year Members
Linda Billingslea
Lisa Lemza
1 Year Members
Charles Quarles

Nona Harp
Sue Michelena

Master Gardeners Committee

Chairpersons-

Bonny Oaks Arboretum:
Elaine Barker
Budget/Finance:
Jane Elmore
County Fair Committee-
Charlene Smith
Scott Drucker
Crabtree Garden Plot:
Linda Billingslea
Tommy Jackson
Food Bank Garden Tour:
Susan Babineau

Historian:

Joy Sewell

Hospitality Committee:

Kelley Walker
Tammy De Ark

Photo Directory:

Wanda Wilkey

Project Committee:

Sue Henley
Rebecca Goldberg

Newsletter Committee:

Gina Turley
Lucie Brant

Service Hours (ACE/CEU):

Gretchen Rominger

Website Committee:

Mike Smith