United States Department of Agriculture, University of Arkansas and County Governments Cooperating

Pulaski County Master Minutes

December, 2004, January, 2005 http://www.uaex.edu/pulaski/

Volume 15, Issue 11

Worm Composting By Shannon Chamberlin

How would you like a continuing source of plant food and nutrition-rich soil right in your own home? With only a small investment of time, money, and effort, you can create a worm farm that will convert your household garbage and a few old newspapers into multiple benefits for your plants.

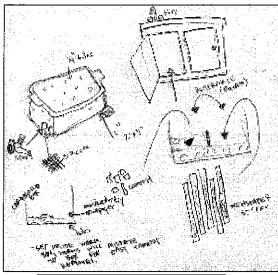
My daughter Mary and I took different approaches to worm composting; illustrating that there's no one right way to go about it. She's a twenty something do-it-yourselfer, and I'm a sixty-ish "if it's easier, buy it" kind of gal. She poked holes in the top of a storage bin and stuck it under her kitchen sink; I purchased an elaborate black 4-tray cylindrical bin made from

recycled plastic by a company in Australia. We both put in household garbage and got back rich composted soil and liquid plant food. On-line you can find detailed instructions for building a bin yourself, places to order various kinds of bins, and sources of Red Worms, along with instructions for caring for the worms as they compost your garbage for you. (Search

for "Worm Composting" and "Order Red Worms.") There's even a hanging worm bin for your patio!

Worms are more interesting than you might think. (In fact, a worm farm can make a good learning project for school children!) In order to create a healthy environment for your worms so they'll be productive, it helps to know something about Red Worm biology and preferences. For instance:

1. Worm Biology: Red Worms have 95 body segments. On the first segment is the mouth and prostomium, a lobe that covers the mouth and acts as a wedge to force open cracks in the soil for the worm to crawl through. Worms propel themselves through the soil by extending and retracting their setae, small hair-like structures on each segment. As they progress, they secrete a lubricant to ease their



Mary Chamberlin's drawing of her bin

way. They breathe through their body surface. Usually worms live about a year in the bin, and after death they become part of the compost.

2. Worm Reproduction: Worms are hermaphroditic. During mating, worms exchange semen, which is deposited in a cocoon with eggs. Following fertilization, the cocoon slips off the worm and into the soil. Eggs (four or so) hatch from each cocoon in about 3 weeks. Baby worms resemble a

piece of white thread, about ¼" long. Conditions like temperature and the

amount of food available limit population growth, so worms won't overpopulate a bin. Population will increase in warm weather when worms are more active if sufficient food is available and decrease as the temperature drops or food supply diminishes.

3. Environmental Preferences: Worms will move away from light and toward fresh food. They need a temperature range of 40-80 degrees F and good ventilation. Sprinkling a handful of ash from a fire into the bin every few weeks helps compensate for acidic foods and maintain the pH range that worms prefer. Moist strips of black and white newspaper make ideal bedding, but some colored inks can be toxic, and shiny paper doesn't work. Adding dry paper strips reduces moisture if the bin gets too wet, and spraying the paper with water if it looks dry increases the moisture level. Locating worm bins away from vibrations and heavy traffic keeps them happier and more productive.



Continued on page 2

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Worm Composting By Shannon Chamberlin

Continued from page 1

Common questions about worm composting generally concern feeding the worms, harvesting the compost and "tea" for watering plants, and potential problems with odor and pests.



What will the worms eat? Worms have simple tastes—they like to eat most kinds of plain vegetables and fruits, but not grains, sauces, salt, or oils. They don't like bitter tastes like banana peels or beans. Limiting the amount of citrus helps prevent mold formation. Since animal products can

contain chemicals that are harmful to the worms and may attract unwanted pests, it's a good idea to avoid them entirely. And just like with humans, too many tea bags or coffee grounds can give worms such a buzz they stop being productive!

The moist newspaper strips used for bedding and to cover their food provides worms with needed fiber, and adding a handful of fine sand when you first set up a new bin provides grit for the worms' gizzards to use in digestion. Grinding or pureeing coarse foods helps worms process them faster.

How much and how often do worms eat? How much worms eat and how fast they go through it depends on how warm they are and the texture of the food, so the answer varies. However, it's easy to tell what the right amount and pace is for feeding them by following a simple process: Place a small amount of food in one spot, and cover it with moist newspaper strips. On subsequent days, work your way around the perimeter of the bin, using a new spot each time. By the time you get back to the first spot used, the food should be digested into dark soil. If not, reduce the amount of food you add, or add food less often. Extra food scraps can be stored in a sealed container in your refrigerator until needed. The worm population will fluctuate to adapt to the food available, and you can feed daily or weekly as you please. When you go on vacation, most sources say the worms will be fine for up to a month without new food, if you leave them a layer of food over about 1/3 of the bin surface (covered by moist newspaper strips). I usually have the person who cares for my cat and dogs feed the worms and check to be sure the bin is staying moist about once a week anyway.

How do you go about getting that plant food "tea" and the finished compost for your plants? The concentrated "tea" drains out from the bottom of the bin. I just collect it, dilute it, and use it to water



A mound of worm castings ... Photo courtesy of The Wacky World of Worms, at: http://www.wackyworldsof.com/organic-fertilizer/

plants indoors and out.

The compost harvest is a little more complicated, but not much. In my daughter Mary's bin, she took a cardboard box a little smaller than the bin, cut holes in the bottom of it, added some shredded damp or dry paper to it, and set it inside the bin. After about 2 weeks, the worms migrated into the cardboard box; she scooped the compost out of the bin, put the worms and fresh food back into the bin, and covered them with moist strips of newspaper.

With my bin, when a tray gets full, I simply add another tray on top of it and start putting food in it, under moist paper strips. As the worms finish with the lower bin, they move up into the new one and start to work on it. Eventually, all four trays are in use, but by then most of the worms have left Tray 1 on the bottom, so I lift the top three trays, set them aside, dump the compost out of the bottom tray, pick out any stragglers and transfer them to one of the other trays, replace the top three trays in the bin, and put the emptied tray on top.

Did you have any problems with odors or pests? If anything, the worm bin should have a sweet smell. If it smells bad, it usually is because of overfeeding. We just stop feeding the worms for awhile to give them a chance to catch up. Once when I forgot to tell the critter sitter



to cover food scraps with paper when she added them to the bin, we did have fruit flies in unwelcome numbers, but the problem was eliminated once we resumed covering the scraps.

My bin has been in operation for several years. It's amazing how much less space kitchen plant waste takes up when it's processed through worms, but I still get a good crop of compost out of it. A little goes a long way, since I put just a thin layer around each plant and let the rain and sprinkler water it in gradually over time. The Lady Banks Rose that gets this treatment has reached the roofline of our two-story house!

If you think you might like to have a worm farm of your own, you can find helpful information at www.uaex.edu, in Mary Appelhof's practical book *Worms Eat My Garbage*, or at the many online sources listed by the search engines.

According to <u>Urban Agriculture Notes</u>, published by City Farmer, Canada's Office of Urban Agriculture, in "Composting With Red Wiggler Worms" by Gillian Elcock and Josie Martens (C) Copyright: City Farmer 1995: Mary Appelhof suggests that the correct ratio of worms to food waste should be: for one pound per day of food waste, use two pounds of worms (roughly 2000). If you are unable to get this many worms to start with, reduce the amount of food waste accordingly while the population steadily increases. For more information go to: http://www.cityfarmer.org/wormcomp61.html

Congratulations Master Gardeners!

For earning your Fifteen Year Pins: Sally Garrison, Pat Green, Jane Gulley, Ruth Owings, Gail Roberson, and Don Thompson

For earning your Ten Year Pins:

Martha Allen, Kevin Allis, Rebecca Camp, Anita Chamberlin, Kristin Huddle, Cheryl Kennedy, Jan King, Peggy Leopoulos, Carolyn Newbern, Cathy Sanders, Jack Singleton, Libby Thalheimer, Kathleen Wesson, and Patty Wingfield

And for earning your Five Year Pins:

James Alberson, Claudia Barone, Bob Bumgardner, Linda Chakales, Vivian Davis, Kelly DeBusk, Mary Douglas, Meg Fox, Carl Goodson, Lynda Harkenreader, Ray Hartley, Mac Huffman, Ginny Jayroe, Bernice Johnson, Dolores LeCompte, Margery Long, Mary Lou May, Tom Mertens, Deborah Moore, Danny Murdaugh, Nell Stephens, and James Wierdsma



15 year members: Pat Green, Sally Garrison and Jane Gulley



10 year members: Jan King, Carolyn Newbern, and Patty Wingfield

Photos courtesy of Lynn Winningham

Thank you...

During the week of the Clinton Library Center opening, several events were held at the Arkansas Arts Center. The Arkansas Arts Center Committee borrowed some beautiful plants and pots from Lakewood Gardens (Michelle was so helpful) and the additional plants made a huge difference.

Botanica loaned us small ferns, houseplants and gorgeous glazed pots for the centerpieces on the tables for the Fine Arts Club luncheon. A nice young man named John Gardener was extremely helpful and so kind.

We also received a generous gift of money from the Fine Arts Club at the Arkansas Arts Center.

We have so many wonderful friends of the Master Gardeners---just want to show them our appreciation by giving them a little press and encourage our readership to purchase from these gracious businesses!

Jet Cuffman, Co- Chairman of the Arkansas Arts Center



5 year members: Kelly DeBusk, Bernice Johnson, Linda Chakales, Margery Long, and Vivian Davis



Delores LeCompte (5yr) and Anita Chamberlin (10yr)



Calendar By Ruth Jones

December, 2004

14 Master Gardener Christmas Party. Trinity United Methodist Church, Martin Hall. Mississippi at Evergreen. Contact Lynn Phelps with questions.

January, 2005

- 14-15 Eagle Awareness Weekends. Bull Shoals White River State Park. 870-431-5521
- 15-31 Exploring Garden Transformations: A Traveling Exhibit from the Smithsonian Institution. Rogers Historical Museum. 479-621-1154
- 18 Pulaski County Master Gardener Meeting. 11:30 a.m. at St. James United Methodist Church, 321 Pleasant Valley
- 15-16 Eagle Awareness Weekends, Petit Jean State Park, 501-727-5444
- 28-30 Eagle Awareness Weekends. Bell of Ozarks 800-552-3803
- 29-30 Eagle Awareness Weekends, Cane Creek State Park 870-628-4714

February, 2005

- 1-28 Exploring Garden Transformations: A Traveling Exhibit from the Smithsonian Institution. Rogers Historical Museum. 479-621-1154
- 8 Spring Planting Frenzy! (AELC). Call 666-0759.
- 15 Pulaski County Master Gardener Meeting. 11:30 a.m. At St. James United Methodist Church, 321 Pleasant Valley
- 19-28 Daffodil Days, Garvan Woodland Gardens. 501-262-9300
- 21-23 5th Annual Home, Lawn & Garden Show, Hot Springs Convention Center.
- 25 27 Arkansas Flower and Garden Show

March, 2005

- 1-11 Daffodil Days, Garvan Woodland Gardens. 501-262-9300
- 1-13 Exploring Garden Transformations: A Traveling Exhibit from the Smithsonian Institution. Rogers Historical Museum, 479-621-1154
- 1-31 27th Wye Mountain Daffodil Festival. Exact date TBA 50I-330-2403
- 11-12 11th Annual Camden Daffodil Festival. 870-836-0023
- 11-13 Arkansas River Valley Lawn and Garden Show. Ft. Smith Convention Center. 479-646-6902
- 12 5th Annual Garden Seminar, The Peel Mansion, Bentonville. 479-273-9664
- Pulaski County Master Gardener Meeting. 11:30 a.m.
 At St. James United Methodist Church, 321 Pleasant Valley

March, 2005 continued

18-20 37th Annual Jonquil Festival, Old Washington State Historic Park. 870-983-2660

28-31 3rd Annual Tulip Extravanganza, Garvan Woodland Gardens 501-262-9300

April, 2005

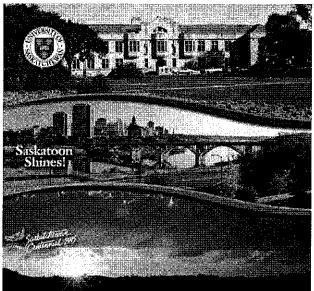
1-10 3rd Annual Tulip Extravanganza, Garvan Woodland Gardens 501-262-9300

Join us as we celebrate 100 years of Gardening on the Canadian Prairies!

Registration information will soon be available. Visit the website for all the latest information:

http://www.mastergardener2005.usask.ca/





The International Master Gardener Committee-Search for Excellence (IMGC-SFE) guidelines and previous winners are now on the web at http://mastergardener.osu.edu/img/.

All our projects need to consider applying for the Search for Excellence Program. The deadline for SFE-2005 is March 4, 2005.

Beth Phelps



December/January Checklist By Linda Moyer



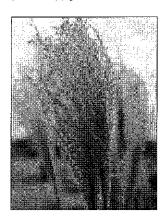
Annuals Fertilize winter annuals regularly all season during any warm spell. Water regularly, especially before a heavy freeze.

Contemplation Garden courtesy of Cheryl Kennedy

General Yard Winter has always been concerned the slowest time in the garden, but it can be very busy if you start planning for next year's garden. Now is the time to order seed catalogs. Remove plants that aren't thriving in their current locations. Try to ascertain the reason for the lack of success. Often it's a matter of planting depth, or an over-accumulation of mulch, or a diseased root system.

Indoors Enjoy the blooms of forced bulbs such as hyacinth and paper whites. Amaryllis bulbs will add more color. Pot them and give a little water after you get they home. After growth starts, water well and keep in the sunlight. They will bloom in six to eight weeks. Stake because they will get tall and top heavy. Place poinsettias in a sunny window in a cooler area of the house now. Reduce watering and begin feeding again in spring. Don't allow potted azaleas to dry out. The soil must remain moist.

Lawns Remove fallen leaves that may smother grass and plants. Apply lime to lawn in December or January.



Grasses at the Contemplation Garden courtesy of Cheryl Kennedy

Perennials & Bulbs If you are planning any major changes to your garden, it is best to do it now while the soil is damp; but not if the soil is still frozen or water logged. Make changes from now until early spring. Remove dead stalks and other debris, destroying infested material and adding the rest to compost. Cut back frostnipped perennials now, leaving 2-3 inch stalks to help locate dormant crowns when planting in early spring.

There is still time to plant spring blooming bulbs. Try to get them in the ground this month to ensure they have ample chilling hours. If you can't plant immediately, store them in a cool location to start the chilling process. Spring bulbs need a minimum of 12 - 16 weeks of cool temperatures for them to be

able to stretch and bloom. When planting, be sure to pick a site with well drained soil. Plant two to three times the size of the bulb, deep in the ground.

Roses Don't prune roses until the early spring.

Trees & Shrubs Plant camellias for winter color. They come in colors ranging from whites, to pinks, to reds, and mixtures. Anyone, who can grow azaleas, can grow camellias. Plant in a well drained area out of the afternoon sun. Evergreen trees and shrubs will drop some of their older leaves. If the flower buds and newer foliage at the end of the branch are ok, don't worry. It is normal.

Vegetables & Herbs Start vegetable seeds indoors in January for transplanting in 6-8 weeks. In late January, plant poppies and sweet peas. Turn cover crops into the soil with a fork or tiller during January to give the green materials time to break down before planting time. Prepare soil for new beds by adding compost, manure, or other organic matter. Although growth of leafy greens will stop in cold weather, if plants are mulched, it will resume in spring and produce greens into May. Add a 6 to 8 inch layer of mulch to root crops so the vegetables can be harvested as needed.

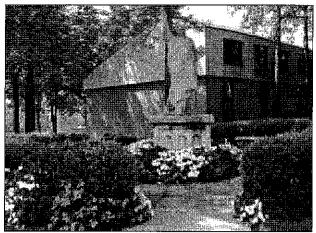
December Color Camellia; Cornus, dogwood; Ilex, hollies; Nandina; Osmanthus aquifolium, syn. Siphonosmanthus; Ilex deciduas, possum haw; rosehips; tea plant; Viburnum; and Viola.



Holly at the Contemplation Garden courtesy of Cheryl Kennedy

January Color Camellia; Calluna, heather; Helleborus, hellebores; Ilex, hollies; Lonicera fragrantissima, winter honeysuckle; Jasminum nudiflorum, winter jasmine; Mahonia; Ilex deciduas, possum haw; Chaenomeles, flowering quince; and Hamamelis, witch hazel.

AMY SANDERS LIBRARY GENTTAL ARKANGAS HEBARY SYSTEM

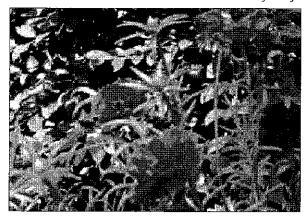


I went to the art show at the Library in August, and shot some of their hard work. Way to go Sara, Bonnie and committee, it looks great! The art show was nice, too, if you can find that darn library-I did get lost in the maze. But that's par for 'my course'.



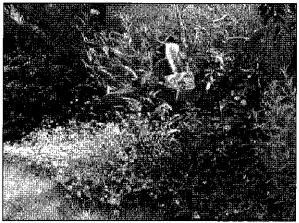
Committee: Edward Douglas and Oneal Dedman
Debbie Stults, Julia McPherson, Sara Dawson, and Barbara
Daniel.

Photo by Jim Tyler



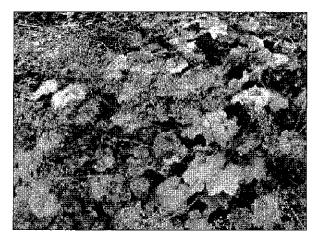
Like I said, I LOVED that hot and cool combo! The *Loropetalum* and hot pink moss rose- were pretty too.

By Lynn Winningham



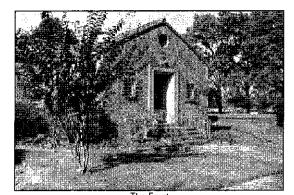
I love the combo of the *Lantana*, *Ruellia brittoniana*, Mexican Petunia, and *Tradescantia pallida* 'Purple Heart'. I only wish the bright orange canna had been shorter so I could get it in the shot. Stunning Combo!!!





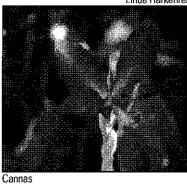
Bet the *Heuchera*, coral bells, were pretty in bloom. We all need one of those signs: "My Garden Peaked Last Week".

Park Hill Water Works Workday By Lynn Winningham

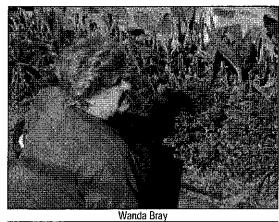


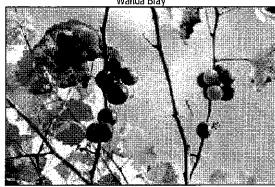
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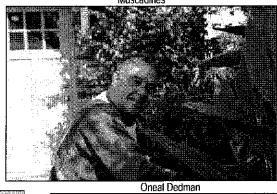


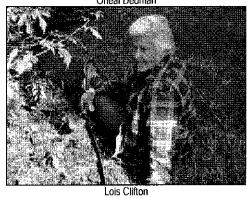












The Greenhouse Photos By Steve Corley

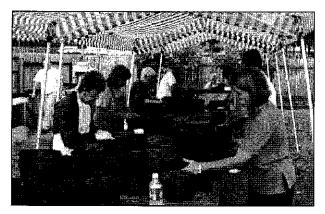


Committee: Dick Blankenbeker, Frances Lopata, Libby Thalheimer, Tom Stuart.

Joan Humphries, Catherine Hepinstall, Laura Lasiter, and Chairman Lois Corley. Photo by Jim Tyler



Fall workday at the Greenhouse starts with a lot of heavy lifting by some residents at the CDC. Along the fence are the Greenhouse Confederate Rose bushes, Hibiscus mutabilis.



It takes a lot of volunteers to plant 20,000 transplants for the fall sale. The Greenhouse committee had lots of help from other Master Gardeners and volunteers from the CDC.

Greenhouse Committee: Catherine Hepinstall, Al Gardner, Betty Glasscock, Billie Sanders, Bob Bumgardner, Breck Campbell, Charles Emerson, Dick Blankenbeker, Dorothy Wilks, Frances Lopata, Frank James, Jan King, Janet Jordan, Joan Humphries, Laura Lasiter, Libby Thalheimer, Lois Corley, Chairman, Peggy Leopoulos, Suzanne O'Donoghue, Tom Stuart, and Waunda Kee



It took three days to complete the transplanting this fall. The plants are grown for about six weeks in the Greenhouse to be ready for the fall sale.



All set to grow.



Charles Emerson plants plugs. He also is on the watering crew during the growing seasons at the Greenhouse. Notice the two volunteers in the background? Dorothy Wilks and Lois Corley are always there for the Greenhouse committee.

Pulaski County Master Gardener Meetings' Highlights By Susan Crisp



Board Meeting, November 16, 2004

Present: Nancy Kirsch, Don Davis, Beth Phelps, Dick Blankenbeker, Ila Newberry, Merilyn Tilley, Jackie Wright,

Mary Freeman and Sandy Harrison.

Nancy Kirsch' turns over the president's gavel' to Dick Blankenbeker

- Minutes were approved from the October meeting.
- Treasurer's report was approved.
- Leaves for 2004 were granted to June Owens, Gay McDaniel and Jane Baldwin.
- Leave for 2005 was granted to Helen Hronas.
- January Board Meeting will be on January 18 at 10 a.m.
- An orientation for new committee chairs will be at the Hays Senior Center on Tuesday, January 25, 2005 from 1:00 p.m. - 3:00 p.m.
- The following expenditures were authorized: \$100 for the Art Center Project for the presidential library opening; a \$100 petty cash fund to be established in January for the Greenhouse; funds for a three-year subscription to the Arkansas Gardener for the Master Gardener Office.
- The Department of Arkansas Heritage has made grants available for programs that support this year's theme, which is "Arkansas Gardens." The board will support any grant requests for this program,
- The Quorum Court appreciated the dinner that the Master Gardeners helped with; however all County Departments can expect a 6.5 % cut in funding next year.

Reports with no names

Four report sheets have been turned in without names. This means that someone's hours are not correct.

- Three of the sheets report hours for Curran Hall:
- 1. One sheet reports hours for Curran Hall from June thru September = 38 hours.
- 2. One sheet reports hours for Curran Hall during Oct and Nov. = 21.5 hours.
- There is also a report sheet for 4 hours at the Old Mill on Nov. 7th.

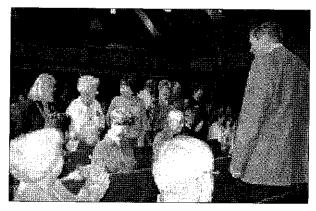
If you think one of these might be yours, please let me know so we can get the hours credited to you.

If you haven't turned in your 2004 hours, please do so.

Thank you, Beth Phelps

General Meeting, November 16, 2004

- Dick Blankenbeker, President, welcomed the 2004 Class of Master Gardeners and recognized our 5 year and 10 year members, and 15 year or Lifetime Master Gardeners. Special recognition was given to our past president, Nancy Kirsch, and to Chris Olsen, the 2004 Friend of the Pulaski County Master Gardener Award winner.
- The Christmas party will be on December 14 at 6:30 p.m. at Trinity United Methodist Church. We will receive a notice in the mail.
- There will be a sale at the Greenhouse on Monday, November 22, from 11 a.m. to 1 p.m. Lois Corley announced that Confederate Roses may be saved by cutting them back and mulching before the first freeze.
- Beth made the following announcements.
 - Check the announcement board and the calendar in Master Minutes for special events.
 - Check the list to see if you have reported all of your hours. If you need hours call Beth.
 - 3. The next meeting will be on January 18, 2005.
 - Central Arkansas Library System needs a parttime gardener.
- The New Master Gardeners were honored at a reception organized by the Social Committee in the Meeting Room after the meeting.



New Master Gardeners are honored after the meeting.

Photos courtesy of Lynn Winningham

Classifieds

Remember the Christmas Party, December 14th at Trinity Methodist Church, Martin Hall, Mississippi at Evergreen.

Master Gardeners

The Benton County Master Gardeners are hard at work planning the 2005 State MG Meeting, scheduled for May 12-14, 2005. The host hotel is the Embassy Suites with an address of Rogers Arkansas. We have reserved a substantial block of rooms for May 12 & 13, but wanted to give you all a heads up that May 14 (starting in the morning) is the UA campus graduation and I am sure there will be lots of parents booking rooms also. Many of you have already begun making reservations, and if you think you are planning on attending you can make a reservation at 479-254-8400. The rate they are giving us is \$85 which is very good for Embassy Suites (be sure to mention MGs. The rooms can accommodate up to 3 or 4 people--there are two double beds and a couch that makes a bed. You can cancel closer to the meeting if you find that you will not be attending. Please do not feel that if you don't book now, you won't have a room, but we just found out about graduation and wanted to share with you all.

Janet Carson

Sunshine Board

If you have information about Master Gardener members who have concerns to be shared please contact the Retention Committee, Jane Gulley, Chair, 225-2072.

Pulaski County Master Gardeners' Memorial Fund

Donations to the PCMG Memorial Fund may be made "In Memory of" or "In Honor of" anyone. Gifts may be specified for a particular use (i.e. trees on public property; garden books for library; Master Gardener projects: benches, birdbaths, statues, or other hardscape); or for General Master Gardener program support. Donations should be sent to: PCMG Memorial Fund 2901 W. Roosevelt Road.

Little Rock, Arkansas 72204

Dig In Here...

For answers to your gardening and horticultural problems, try these helpful resources:

Master Gardener Website:
 http://www.arhomeandgarden.org/mastergardenersonly
 And Andrews Andrews

Username: mastergardener, password: compost

PC Cooperative Extension Service
Website:
http://www.uaex.edu/pulaski/masteri

http://www.uaex.edu/pulaski/mastergarden ers/default.asp

• U of A Cooperative Extension Service Website:

http://www.arhomeandgarden.org

 Pulaski County Cooperative Extension Service

> 2901 W. Roosevelt Road, Little Rock, Ark. 72204 340-6650

Read 'em and Reap...

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Pulaski County Master Gardeners are trained volunteers working with the University of Arkansas Cooperative Service and Pulaski County Government to provide demonstration gardens and horticultural – related information to the residents of the county. In 2003, these volunteers gave more than 10,000 hours of service.

Elisabeth J. Phelps, County Extension Agent, Staff Chair

News & Notes

Everyone is encouraged to submit interesting information, committee reports, newsworthy photos, etc. to the newsletter.
Bring your information to the Master Gardener meeting, or send it to: Libby Thalheimer 5005 Crestwood Little Rock, Ark. 72207 Smell34@aol.com 663-1151

The deadline is the third Tuesday of each month. For late breaking news after the deadline, send information to:
Beth Phelps
Pulaski County CES
2901 W. Roosevelt Road
Little Rock, Ark. 72204
bphelps@uaex.edu
340-6650



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