



Witch Hazels Provide Color and Fragrance

Witch Hazel plants make hiking in Arkansas a delight in the fall and in the spring. The flowers open from buds that look like tight little fists. They have only four petals, each like a gay, crinkled paper streamer. Rarely more than an inch long, the spidery blossoms are cheerful and release a spicy fragrance. The blooms appear at nodes on stems and the fruit may still be attached when the flowers appear. The two native species, common witch hazel (*Hamamelis virginiana*) and Ozark Witch Hazel, as well as the Japanese witch hazel (*H. japonica*), the Chinese Witch Hazel (*H. mollis*) and a hybrid of the two imports (*Hamamelis x intermedia*) are found in gardens.

Native Witch Hazels

The common witch hazel produces yellow blooms from September to the end of December. It occurs in rich woods on north-facing slopes or in wooded valleys along streams. The foliage in autumn turns a pale to rich yellow, or yellow tinged with orange. The flowers have a delicate fragrance and can withstand considerable freezing weather, and after fertilization develop slowly into the fruit. The process of fruit formation requires nearly a year for complete development. The fruit when ripe, splits open suddenly, throwing the black seeds as much as 30 feet away.

The Ozark witch hazel produces orange, reddish or salmon-colored flowers from January to April. It occurs in gravel and rocky streambeds, at the base of rocky slopes along streams, and rarely on wooded hillsides in rock draws. Again the flowers are quite fragrant and are the first of any woody species to be found in bloom in Arkansas. The foliage turns pale yellow in the autumn. This species spreads by a suckering habit and forms extensive stands along most of the gravel beds in the Ozarks. It makes a handsome shrub in cultivation and transplants readily, enjoying full sun and well-drained rock situations.

Chinese Witch Hazel

According to Gerald Klingaman in an issue of "Compostings", the Chinese witch hazel has made its way from almost complete botanical obscurity to being widely available in nurseries in the last eight years. The short time span from "discovery" to wide availability occurred because the plant is highly ornamental and grows quickly.

This shrub has flowers that are white and appear in

March in clusters up the stem. There is also a pink flowered form with maroon leaves. It has a graceful, arching and open branching pattern.

It is hardy throughout the state except in the mountainous regions. It will experience winter kill when we have one of those winters that freeze the crape myrtle back, but it will probably not be killed outright.

Japanese Witch Hazel

The Japanese witch hazel is less fragrant than the others and is rarely available. The hybrids with the Chinese witch hazel have produced some plants with the showiest flowers. *H. x intermedia* 'Diane' has coppery-red flowers in late winter and early spring before the leaves appear. *H. x intermedia* 'Arnold Promise' from the Arnold Arboretum has extra-large fragrant primrose-yellow flowers in February.

Propagation

Propagation by cuttings or planting seeds is very slow and often not successful. Plants are available from most nurseries that sell shrubs. All witch hazels are easy to grow in sun or partial shade. They thrive under a canopy of deciduous trees. They prefer a slightly moist site and highly organic soil liberally enriched with compost. Growth is fairly slow, but they require little or no maintenance and are seldom troubled by pests. Plant them in the spring or early fall.

Folklore

If the deficit in precipitation continues in Arkansas, we might resort to an old use of the witch hazel. In pioneer days, the twigs were used as divining rods to locate water or mineral deposits. The rods were held in the palm in a certain manner and would presumably turn and point toward the earth at the desired spot. ♦

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Calendar And Notes

By Laurie Pierce

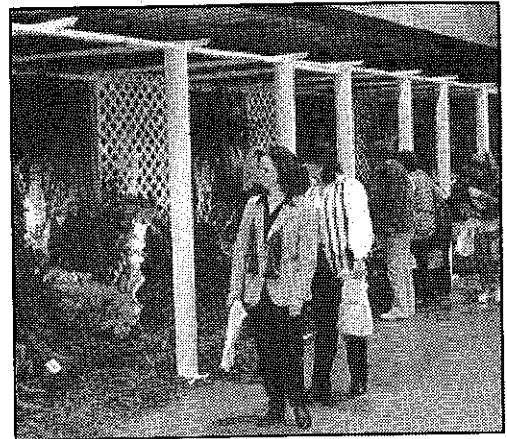
February

The *Arkansas Flower and Garden Show* will be held February 25-27 at the Statehouse Convention Center. Call 340-6650 to volunteer.



March

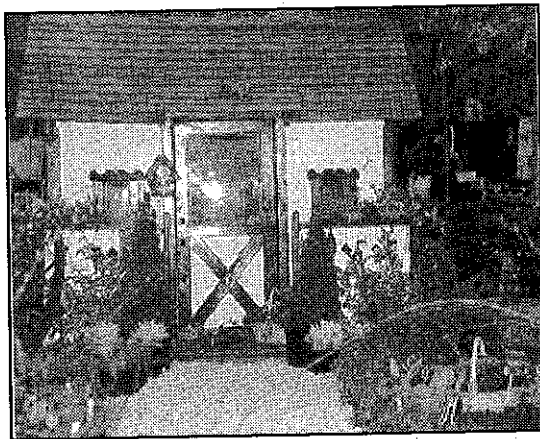
Janet Carson and Kruger Tours will lead a *Master Gardener trip to the Philadelphia Flower Show* March 4-7. The cost is \$895 for double occupancy. Call Kruger Tours at (501) 224-8747.



April

"Dallas Blooms" is the theme for a *Master Gardener Tour* by Beth Phelps and Kruger Tours April 7-9 to the Dallas Arboretum. The cost is \$399 for double occupancy. Call Kruger Tours at (501) 224-8747.

Arkansas Master Gardeners will gather at Fairfield Bay April 24-25 for the annual meeting. Call 340-6650 or 671-2000.



May

Trinity Episcopal Cathedral, 310 W. 17th Street, will host its annual *Flower Show* May 12-14. The featured speaker will be P. Allen Smith. 372-0294.

The *Southeast Regional Master Gardener Meeting* will be held in Tifton, Ga., May 14-17, Call Janet at 671-2000.

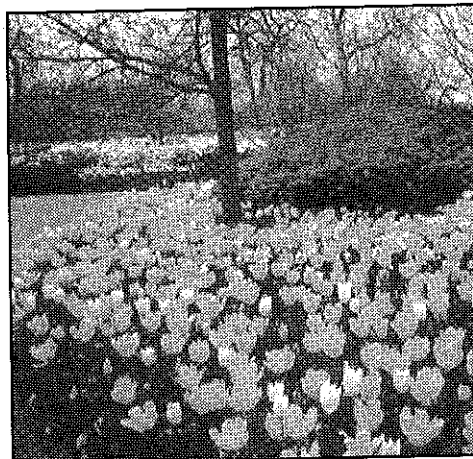


2001

The *International Master Gardener Conference* will be held in Orlando, Fla., May 22-25. Mark your calendar.



The top three photos are from the *Arkansas Flower and Garden Show*. The bottom two are from the Dallas Arboretum during "Dallas Blooms".



otes



"Mason's" is the theme for a *Mason's Tour* by Beth Phelps and Kruger to the Dallas Arboretum. The tour is for double occupancy. Call at (501) 224-8747. *Winter Gardeners* will gather at Little Rock April 24-25 for the annual meeting. Call at (501) 224-8747 or 671-2000.

W. 17th
May 12-13
Smith.



ardener
/ 14-17,



Plot, continued from page 6

as magnolias and hollies. All newly planted or transplanted material should be watered in with "Superthrive" or other root stimulator.

Make Your Bed!

For inspiration, plan on going to the Arkansas Flower & Garden Show.

Design new gardens; start construction of raised beds, borders, and planter boxes.

Place orders for seeds, bare root roses, perennials, and shrubs, to ensure availability.

Put out asparagus crowns and strawberry plants as soon as the soil is workable.

For new planting sites, test soil to determine the proper amendments. For existing sites, amend soil with mulch, compost, etc.

Sow What?

Outdoors, sow broccoli, cabbage, candytuft, cornflowers, larkspur, onion sets, English peas, phlox drummondii, and seed potatoes.

Plant sunflowers to attract the natural enemies of the white fly.

In a cold frame, plant blue salvia, feverfew, lupine, nicotiana, scabiosa, snapdragon, and verbena, as well as cuttings of shrubs (put at least two buds underground).

Indoors at 65 to 75 degrees and six inches under artificial lights, sow annual flowers and vegetables. Keep the lights on for 10-12 hours a day, and keep the soil moist. It takes six to eight weeks to grow a viable transplant.

Who's Bugging You?

For borers, mites, aphids, or scale, apply dormant oil spray such as "Sun Oil" to trees, shrubs, evergreens, roses and the perennial border. Check the label for optimum temperature conditions (usually, on a calm day when the temperature is expected to be above 40° for three days and no rain is expected for 24 hours). Spray plants before leaf buds open to avoid burning them. Note: *Do not use oil spray* on sugar or Japanese maple, walnut, beech or magnolia trees.

Use insecticidal soap to control aphids on cool season annuals and vegetable plants.

Apply pre-emergence herbicides on established lawns or even newly planted ground cover and shrub beds to control weeds. Kill spurweed and other winter weeds now, before they have time to set seeds.

February Stock

Outdoors: flowering almond, anise Florida, arum, bridal veil, camellia, chionodoxa, crocus, daffodil, dogwood, forsythia, helleborus, hyacinth, iris (*stylosas* and *reticulatas*), Carolina jasmine, kerria, loropetalum, Oriental magnolia, muscari, pansies, phlox, primrose, pussy willow, quince, redbud, *Scilla sibirica*, snowdrops, *Spirea thunbergi*, viola and violet.

MG Officers and

President Martha
1st V. President Carol
2nd V. President Suelle
Secretary Sandy
Treasurer John P.
Past President Conni

Committee

Social Jane Druft
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Greenhouse Lois Corley
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Old State House Sylvia Orton
Bettye Jane Dau

Pinnacle Jeanne Lizar

River Market Laura Anne Wi
Barbara Johnson
Judy Cass

State Ext. Office

State Hospital Rose Bradley
Marian Berry

2000 Arkansas Flower and Garden Show

The Arkansas Flower and Garden Show takes place at the Statehouse Convention Center, 1 Statehouse Plaza, in Little Rock February 25, 26, and 27. Come visit the walk-through butterfly house; check out all the gorgeous outdoor furniture and furnishings; buy lots of plants, books, and other goodies; learn from the lectures; and go home with more ideas than you can ever implement this growing season!

Hours Friday and Saturday are 9 a.m. to 6 p.m. and Sunday 10 a.m. to 5 p.m. General admission is \$5, seniors \$3, and children 6 to 12 \$1. (When you're working on the show, you get in for free, so sign up now if you haven't already done so!)

You also might want to put some of your plants in the show. Competition is open to all amateur growers, as long as preregistration is observed — all horticulture entries must be preregistered before February 21, 2000.

The Horticulture Classification Committee will be on hand to accept preregistered entries from 7:00 a.m. until 5:30 p.m. on February 24.

For more information and entry forms contact Norma Weems at (501) 225-8877 or Beth Phelps at (501) 340-6650.

Here's the schedule of lectures for the weekend:

Friday, February 25

10:30 *Great New Plants for Arkansas — The Arkansas Select Program*. Gerald Klingaman, Extension Horticulturist — Ornamentals.

11:30 *Good Daylilies for Less Than \$10*. Clarence Crochet, Daylily Grower from Prairieville, La.

1:00 *Outstanding New Plants for the Southern Garden*. Norm Winters, Extension Horticulture Specialist, Raymond, Miss.

2:30 *Butterflies and Their Beauty*. Jaret Daniels, Entomological Consultant, Gainesville, Fla.

3:00 *Using Dwarf Bamboos in the Garden*. Gordon Powell, Ozark Bamboo Garden, Eureka Springs, Ark.

Saturday February 26

10:30 *Landscaping in Drifts of One*. Tony Avent, Plants Delight Nursery, Raleigh, N.C.

11:30 *Developing a Successful Flower Breeding Program*. Kevin Vaughn, Plant Breeder from Leland, Miss.

1:00 *Surround Yourself with Shady Characters — Perennial Garden Plants for the Shade*. Tony Avent, Plants Delight Nursery, Raleigh, N.C.

2:30 *Winning Plant Combinations*. Norm Winters, Extension Horticulture Specialist, Raymond, Miss.

3:30 *Flower Design and Butterflies — Spring's Delight*. Lou Cook, Arkansas Florist Association

Sunday February 27

1:00 *Creative Container Gardening*. Janet Carson, U. of A. Cooperative Extension Service

2:30 *The Monarch Butterfly — An International Traveler*. Jim Edson, University of Arkansas, Monticello

Winter Holiday Party Recipes

Apple Spinach Salad

From Vivian Davis

2 (6 oz) pkg fresh baby spinach
2 Granny Smith apples, chopped
1/2 cup salted cashews
1/4 cup golden raisins

Dressing:

1/4 cup sugar
1/4 cup vegetable oil
2 tablespoons balsamic vinegar
1/4 teaspoon celery salt

Combine ingredients for dressing, pour over first four ingredients, and gently stir. Then enjoy!



Southern Pecan Pie

From Nell Stephens

3 eggs (well beaten)
1 cup Karo syrup
1 cup sugar
1 cup pecans
2 tablespoonfuls butter (melted)
1 teaspoonful vanilla
1/4 teaspoonful salt

Combine all ingredients and place in unbaked pastry shell.

Bake 45 minutes at 350 degrees.



Winter Organic Gardening

By Annette Hurley

In the cold of winter, gardeners are pouring over seed catalogs, anticipating spring's arrival. Most of us can't wait to get out in the yard and dig in the dirt. So make the best use of this dormant period to get your soil in shape for the growing season ahead.

Soil Rejuvenation

Start a soil rejuvenation program by turning the compost pile and adding many more layers of organic material that will breakdown into a rich humus. Humus is carbon-based and is a significant source of soil and plant energy. Add manure to your pile if it needs a jump-start.

If your compost pile has rotted, try to use the material in your garden beds or, better yet, add a thin layer to the lawn. The more humus in your soil, the more disease-resistant and drought-tolerant it becomes. Compost helps improve soil faster than any other organic material and can cure a number of diseases and problems.

Weeding

If you have weeds appearing, take note of what they are and where they grow. They are there for a reason. Most weeds such as henbit, chickweed, crabgrass, and onions are signs of a calcium deficiency in the soil. Others represent deficiencies of elements such as magnesium, which has a huge effect on photosynthesis.

Many times essential elements are in the soil but unavailable to plants. Apply a layer of calcium carbonate lime now. This mineral will become more available to the plants later in the spring.

Mulching

Use less composted material as a mulch in beds. Eventually, this material will break down even more, adding many essential trace elements to the soil.

When using mulch, consider a material that will break down faster, such as mulched leaves and grass clippings, shredded newspaper, pine needles, alfalfa hay, cottonseed hulls, rice hulls, cedar chips (which also repel fleas) or wheat straw. Hardwood bark is slow to break down and doesn't provide many nutrients to the plants. Peat moss as a mulch is a bad choice too.

Mowing

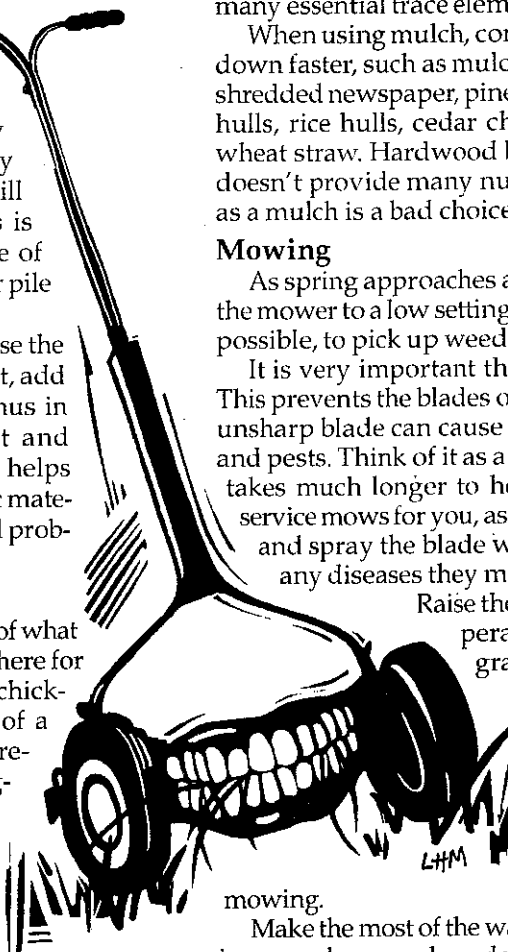
As spring approaches and the lawn needs mowing, set the mower to a low setting but do not scalp. Use a bagger if possible, to pick up weeds and weed seeds.

It is very important that your mower blade be sharp. This prevents the blades of grass from being "ripped". An unsharp blade can cause stress and may attract diseases and pests. Think of it as a cut on your skin — a tear or rip takes much longer to heal than a sharp cut. If a lawn service mows for you, ask them to keep their blades sharp and spray the blade with Lysol before mowing to kill any diseases they may carry from yard to yard.

Raise the height of the mower as the temperature rises. By midsummer, the grass blades should be about three inches in height. This allows for longer root systems that can reach further into the soil for water and nutrients and will keep sunlight from germinating weed seeds. It also looks nicer and requires less

mowing.

Make the most of the warmer winter weather by preparing your lawn and garden for spring now. Happy overwintering — and don't forget to feed the birds. ✪



Congratulations, Master Gardeners!

The home of *Pulaski County Master Gardener Virginia Johnson* will be featured Sunday, February 6, at 9 p.m. on HGTV. The program is called "Restore America", and Bob Vila hosts the show.

Every Pulaski County Master Gardener can take pride in our accomplishments during 1999. We learned much, had lots of fun, traveled to some great gardens and nurseries, and made our communities ever more beautiful.

We made the media several times, and our gardens were chosen as backdrops for many weddings, as well as for photographs in various newspaper and magazines and

for backgrounds in public service announcements.

Altogether, we put 7,291 hours into our projects during 1999. We spent 5,016 hours learning more about gardening (for those precious continuing education hours!). We gave 2,054 hours to community outreach, and another 1,140 hours helping people when they called in to the Cooperative Extension Office with their gardening questions. That's a total of 15,501 hours in just one year!

In strict volunteer hours (projects and telephone), that's a total of 8,431 hours, up from around 7,000 in 1999. Now, let's see what we can accomplish in the Year 2000! ✪

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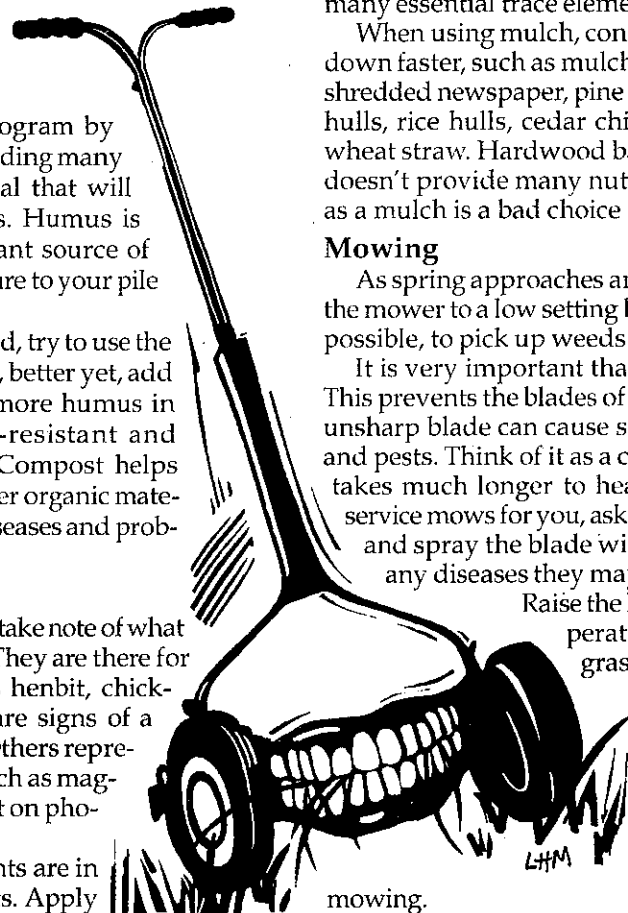
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Ladybugs

By Julia Loyall

Besides being the delight of children, ladybug beetles were harbingers of fine weather in France, of good luck in pioneer America, and of marriage soon for European peasant girls. To farmers and green thumbers, they truly bring good luck because of their hearty appetite for aphids, mites, thrips, mealybugs, scale, potato beetle eggs and other soft-bodied pests that destroy crops.

When you eat a California orange, say thank-you for ladybugs. After the Civil War, citrus trees in California were being wiped out by cushiony cotton scale imported accidentally from Australia. In 1888 entomologist Albert Koebele noticed a small ladybug feeding on the scale in an Australian tree. The few little lady beetles he sent to California happily ate the citrus-growers back into business.

The world has perhaps 3,400 species of ladybugs (or lady beetles), and America has about 350 species. Their little round or broadly elliptical bodies have small heads almost hidden by the elytra (hard outer wings) that protect the parent wings folded beneath. Color of the elytra may range from red to orange to orangey-yellow.

Short antennae have 11 segments and terminate in a three-segment club. Chewing mouthparts have spoon-shaped palps which help hold and taste the prey. The characteristic black spots vary in number from two to 20. Some beetles have splotches of black or other colors, or no spots at all. (Don't confuse ladybugs with the Mexican bean beetle, which is greenish yellow with 16 black spots, or the squash beetle, which has 14. These are leaf-eating varieties, and black sheep of the *Coccinellidae* family.)

The female is ready to mate a few days after becoming an adult. She lays two to 100 yellow eggs the size of poppy seeds near a source of food.

Larvae are the size of a pinhead, and look like little alligators with three pairs of relatively long legs. They turn black with spots of bright colors, rest a day, and start eating insects (and each other) voraciously until they are so fat their skin splits and sheds.

After the fourth molt, an orange and black pupa emerges which resembles a ladybug with no legs, usually hanging attached upside-down under a leaf or on bark or rock. The adult breaks out in three to 15 days, light orange, and minus spots at first. Tips of the flying wings stick out as they dry, but are soon tucked in. Young adults remain light-colored for months.

Adults may eat up to 100 aphids a day; larvae eat all the time. Aphids taste sweet from the plant sap they have

been sucking. Ladybugs taste terrible and smell bad. When disturbed, their leg joints leak a nasty yellow fluid. Few creatures eat more than one. Ladybugs also will feign death for protection, and will run away from ants, which will attack them. Another enemy is the parasitic fly, which bores into the adult, larva, or egg to deposit her eggs, which consume the beetle as they grow.

Few ladybugs survive to be a year old, but their extreme fertility is a great advantage. (The protein from their insect diet is necessary for egg laying.)

If you want ladybugs in your garden, be careful with your own pest control. Most pesticides used in the garden will kill beneficials as well as undesirable; Neem will kill only leaf-eaters.

When temperatures cool and few insects can be found, ladybugs slow down and can survive the winter in a state of dormancy.

Some ladybugs, like convergent lady beetles, travel as much as a hundred miles to cool mountains or forests, where they gather in piles of millions for the winter. Unable to move until temperatures rise, they survive on stored body fat. They are sometimes collected from the dormant piles for sale to garden suppliers.

Not all ladybugs will leave for the mountains at season's end. They will congregate in tree bark, under boulders, in piles of leaves, or in buildings if they can find a way in. Check your screens! Offer your ladies a cozy spot for hibernation in a pile of dead leaves, hay, straw or other organic mulch around plants, rocks or a fence where there are insects.

Be sure if you buy mail-order beetles that they have been tested for parasites, to avoid introducing the parasitic wasp or fly into your garden. If pest insects have not yet arrived in your garden, the package may be refrigerated up to three weeks. The beetles will be hungry and thirsty. If the weather is dry, sprinkle your plants before the release. Then turn out the newcomers in the evening, when it is calm and cool. Put a handful at the base of plants where there are insects.

To attract and keep these tiny helpers, plant flowers with nectar and small blossoms: annuals such as cosmos, crimson clover, nasturtium, and marigolds; perennials such as angelica, common fennel, coreopsis, golden-rod, tansy, butterfly weed, yarrow, and roses; and vegetables such as cucumbers, peppers, eggplant, and tomatoes. *

Ladybug, ladybug,
fly away home

Master Gardeners' Plot For February

By Libby Thalheimer

Cut back

Cut back dwarf crape myrtles to within six inches of the ground. Prune back larger crape myrtle shrubs only if needed to maintain size or to remove suckers. Thin tree forms every three to five years. Annual pruning of this tree destroys its natural appearance.

Cut out all dead wood on broadleaf evergreens, then any branches that turn in or overlap in the center. Wherever you cut is where the plant will thicken, so prune above a twig growing outward, not above a leaf bud.

Remove undesirable limbs and tip terminals on fruit trees and grapevines, and thin out crowded shoots.

Leave some of the branches of fruit and berry trees for small animals to chew on.

Remove older canes of blueberry plants and spiraeas.

Cut back lateral branches of blackberries to one foot.

Mow or shear to four to six inches winter-creeper euonymus, Japanese honeysuckle, English ivy, mondo grass, monkey grass, pachysandra, pampas grass, crown vetch and Vincaminor.

Shear to six to eight inches santolina, lavender cotton, and junipers.

Mid-February, prune rose bushes (hybrid teas 8" to 18", floribundas, and multifloras) to maintain their size and vigor. Prune ever-blooming climbers

only to invigorate older plants and to remove weak canes, not annually.

Do not prune forsythia or flowering quince until after bloom.

Prune back by one-third to one-half tropical bloomers that are over-wintering indoors.

The Dirt

Top dress roses with cottonseed and bone meal and cover with a layer of compost or rotted manure. Dehydrated manure will limit nut grass and weed seeds.

Apply lime to lawns, if not done in December or January.

Fertilize trees with a light nitrogen fertilizer, if not done in January.

Apply a slow-release fertilizer to annuals and overwintering tropical plants at the rate recommended on the label.

For The Birds

Provide fresh water near the birds' shelter.

To attract a variety of birds, feed them suet,

cracked corn, sunflowers, chopped fruits, doughnuts, or cornmeal mixed with peanut butter, or plant barberry, beautyberry, coralberry, cottoneaster, dogwood, hawthorn, holly, mahonia, possum haw, and viburnum, which all provide fruits and berries in a February landscape.

The Hole Truth

Plant ball and burlap trees and shrubs and bare-root plant materials that are still dormant. Soak the roots in water overnight before planting.

If you cannot plant right away, cover the roots with moist soil or compost and store in

a shady location. After the 15th of February is the best time to plant roses, dogwood and broad-leaved evergreens, such



See Plot, continued in next column

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The Hole Truth

Plant ball and burlap trees and shrubs and bare-root plant materials that are still dormant. Soak the roots in water overnight before planting.

If you cannot plant right away, cover the roots with moist soil or com-

post and store in

a shady location. After the 15th of February is the best time to plant roses, dogwood and broad-leaved evergreens, such

See Plot, continued in next column



Plot, continued from page 6

as magnolias and hollies. All newly planted or transplanted material should be watered in with "Superthrive" or other root stimulator.

Make Your Bed!

For inspiration, plan on going to the Arkansas Flower & Garden Show.

Design new gardens; start construction of raised beds, borders, and planter boxes.

Place orders for seeds, bare root roses, perennials, and shrubs, to ensure availability.

Put out asparagus crowns and strawberry plants as soon as the soil is workable.

For new planting sites, test soil to determine the proper amendments. For existing sites, amend soil with mulch, compost, etc.

Sow What?

Outdoors, sow broccoli, cabbage, candytuft, cornflowers, larkspur, onion sets, English peas, phlox drummondii, and seed potatoes.

Plant sunflowers to attract the natural enemies of the white fly.

In a cold frame, plant blue salvia, feverfew, lupine, nicotiana, scabiosa, snapdragon, and verbena, as well as cuttings of shrubs (put at least two buds underground).

Indoors at 65 to 75 degrees and six inches under artificial lights, sow annual flowers and vegetables. Keep the lights on for 10-12 hours a day, and keep the soil moist. It takes six to eight weeks to grow a viable transplant.

Who's Bugging You?

For borers, mites, aphids, or scale, apply dormant oil spray such as "Sun Oil" to trees, shrubs, evergreens, roses and the perennial border. Check the label for optimum temperature conditions (usually, on a calm day when the temperature is expected to be above 40° for three days and no rain is expected for 24 hours). Spray plants before leaf buds open to avoid burning them. Note: Do not use oil spray on sugar or Japanese maple, walnut, beech or magnolia trees.

Use insecticidal soap to control aphids on cool season annuals and vegetable plants.

Apply pre-emergence herbicides on established lawns or even newly planted ground cover and shrub beds to control weeds. Kill spurweed and other winter weeds now, before they have time to set seeds.

February Stock

Outdoors: flowering almond, anise Florida, arum, bridal veil, camellia, chionodoxa, crocus, daffodil, dogwood, forsythia, helleborus, hyacinth, iris (*stylisos* and *reticulatas*), Carolina jasmine, kerria, loropetalum, Oriental magnolia, muscari, pansies, phlox, primrose, pussy willow, quince, redbud, *Scilla sibirica*, snowdrops, *Spiraea thumbergi*, viola and violet.

Indoors: cyclamen, kalanchoe, orchids and pre-chilled bulbs (hyacinths, paper-whites, and daffodils). Place cut branches of a spring flowering shrub (such as forsythia, fruit trees, Oriental magnolia, or quince) into one gallon of warm water with two tablespoons of ammonia. Tightly enclose the container and stems in a bag. You should have spring blossoms weeks before they can flower outside. *

MG Officers and Chairs for 2000

Officers

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2nd V. President	Suellen Roberts	225-2362
Secretary	Sandy Harrison	868-5145
Treasurer	John Prather	663-2473
Past President	Connie Ruth Smith	851-8234

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Sunshine	Linda Dantzler	771-0844
Arts Center	Suellen Roberts Jim Campbell	225-2362 666-0818
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Cammack Fruit Demo	Ruth Owings	455-4344
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Governor's Mansion	Aleta Newell Claudia Stallings	666-0991 666-1235
Greenhouse	Lois Corley Mary Evans	666-2498 664-7863
Jacksonville City Hall	Kathlene Cole	988-2109
Mt. Holly	Sally Sanderson Alice Holcomb	664-7211 666-7771
Old Mill	Rochelle Greenwood Sue Anderson	753-7853 771-2447
Old State House	Sylvia Orton Bettye Jane Daugherty	223-9098 221-2865
Pinnacle	Jeanne Lizar	835-5431
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State Ext. Office	Judy Cass	834-7588
State Hospital	Rose Bradley Marian Berry	225-8429 663-1693
Park Hill Water Works	Peggy Gay Eddie Beasley	835-3684 835-7501
War Memorial	Bill Trimble	223-3525

Write with your spade,
and garden with your pen.
~ Roy Campbell

Work Day Set

The Old State House garden committee has scheduled a regular work date. It will be the 1st Thursday of each month. During the winter, we'll start at 9 a.m.

We urge people to carpool because parking downtown is at a premium.

Everyone is welcome!

~ Sylvia Orton, Chair

Low Profile

By Lynne Woods



This month's featured gardener is *Lisa Mantle*. Lisa has been married for 15 years and has two dogs named Sienna and Elie. She enjoys

agility training with her dogs for competition (check out their ribbons!).

If you haven't seen Lisa, I'm sure you have seen her work. She is an accomplished artist, and contributes a great deal to the "Master Minutes" — all of our artwork comes from Lisa. She says she isn't a writer, but what we gain from her contribution speaks louder than words.

So the next time you do see Lisa, give her a pat on the back. My sources tell me she is a very hard worker for your "Master Minutes".

In addition, she heads the team (for the second year) that keeps the Contemplation Garden at MacArthur Park looking good.

Place of birth: Little Rock, Ark.

Master Gardener: Since 1995

My favorite plant: Anything with vivid color that grows tall and a little wild.

I would never plant: Never say never.

One word to sum up my garden: Colorful!

Master Gardener Projects: Contemplation Garden and the "Master Minutes". *

Dig In Here ...

Does a gardening/horticultural problem have you stumped? These resources can help you avoid the horns of nearly any garden dilemma:

Pulaski County Cooperative Extension Service Office

2901 West Roosevelt Road
Little Rock, Arkansas 72204
340-6650
bphelps@uaex.edu

Arkansas Cooperative Extension Service Office

2301 South University
Little Rock, Arkansas 72204
671-2000

Horticultural Hotline

340-6660

University of Arkansas
Cooperative Extension Service
Website www.uaex.edu

Trading Post

By Frances Young

Mary Douglas, 225-2584, has cleome, cypress vine seeds, and rose campion seeds. She wants partridgeberry.

Marie Jordan, 791-3209, wants mondo grass or green liriopse.

Cheryl Kennedy, 753-8192, has blue larkspur.

Kathleen Wesson, 663-9146, wants hellebores.

Suzanne O'Donoghue, 661-9658, has bearded iris.

Rita Johnson, 227-5393, has moon flower seeds.

Marie Flickinger, 758-4202, wants moon flower seeds.

Bonnie Cargile, 868-5404, has moon bush seeds.

Pat Wallace, 753-8781, wants whoever called her about hummingbird plant seeds to please call again. She's lost your number. *

*Growth is
the only evidence of life.
~ Cardinal John Henry Newman*

Spread The News!

If you have an item of interest or a newsworthy photo, or need to tell the general membership something about your committee, this newsletter is your opportunity to reach all Pulaski County Master Gardeners.

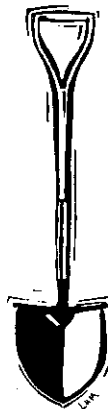
Please provide your information to us by the February MG meeting to see your message in the March issue of the newsletter.

You may bring your information to the meeting or send it via: Beth Phelps, Pulaski County Cooperative Extension Office, 2901 West Roosevelt Rd., Little Rock, AR 72204, 340-6650, bphelps@uaex.edu; Mrs. McKinney, 340-6650; Rose Hogan, 374-9429, rhogan@aristotle.net; or Cheryl Kennedy, 753-8192, fax 753-6305, and inthegarden@aristotle.net.

If you have late-breaking news unavailable by the meeting date, Beth may be able to add it to her letter that is mailed with the newsletter. *

Master Minutes Staff — 2000

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Co-Chair/Layout	Cheryl Kennedy
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Art	Debra Atencio
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	Phyllis Rye
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	Laura Anne Wilson
	Lynne Woods
	Frances Young



Pulaski County Master Gardener Volunteers are trained volunteers working with the University of Arkansas Cooperative Extension Service and Pulaski County Government to provide demonstration gardens and horticulture-related information to the residents of the county. In 1999, these volunteers gave more than 8,400 hours of service.

Beth

Elisabeth J. Phelps
County Extension Agent — Agriculture



MASTER MINUTES

U of A
UNIVERSITY OF ARKANSAS
DIVISION OF AGRICULTURE
Cooperative Extension Service

March 2000

Volume 11 Issue 2

Know Your Plants' Drought-Resistance And Heat Tolerance

By Julia Loyall

The last two summers in Arkansas saw many favorite trees and shrubs fall victim to stress of extreme heat and lack of rain. When you shop for replacements, the Heat-Zone Map classifications of the American Horticultural Society can prevent future losses. The AHS book, *Heat-Zone Gardening*, gives summer and winter hardiness zones of many garden favorites.

Winter hardiness of plants is a familiar concept to gardeners. The U.S. Department of Agriculture Hardiness Zone Map places most of Arkansas in Zone 7, meaning that our average minimum temperature should not fall below 0-10° F. A shrub labeled Zone 7 should survive our winters unscathed with appropriate care, although you may expect some spring to grieve over the demise of a beautiful Zone 8 shrub which winters well in Louisiana.

We need to consider summer hardiness as well. Temperatures over 86° F. begin to damage plant cellular protein, just as temperatures of 45° begin to cause winter damage, especially if water is lacking. The AHS Heat-Zone Map divides the United States into 12 zones based on the average yearly number of days of temperatures above 86°. This puts most of Arkansas in Zone 8, because our average number of days above 86° ranges from 90 to 120 days. When I go shopping for a replacement for the 30-year-old yaupon holly that died this summer, I need to check that it will be hardy in Zone 7, which the tag will probably tell me, and to research whether it will prosper in Heat Zone 8. AHS expects plant tags to display Heat Zone ratings soon, but in the meantime, I can check with my nurseryman or a neighbor who has a specimen of the shrub, or visit the library and check *Heat-Zone Gardening*.

Another important consideration in making good plant choices, besides cold and heat zones, is drought tolerance. Summer water bills are escalating, and constant watering eats up garden time. Furthermore, lack of water weakens many plants so that they are more affected by extremes of heat and cold, and succumb more readily to disease and insect attack. So I need to know how the new shrub will bear up when I'm gone and the grandchildren overlook it when they're watering.

While many plant catalogs and gardening books include water needs in their plant descriptions, *Heat-Zone Gardening* is a particularly valuable resource because it gives drought-tolerance information as well as winter and summer hardiness zones.

Another good book, *Xeriscaping*, lists drought-tolerant plants for different regions of the country. Many areas

experience water shortages at present and are limiting water usage for lawns and gardens. We have been fortunate in Arkansas, but rationing may lie ahead, especially where population growth is rapidly making water supplies inadequate. So introduction of native plants and drought-tolerant non-natives into the landscape is prudent now.

The AHS Heat-Zone classifications and the USDA Winter-Hardiness Zones assume that you follow normal good gardening practice, considering the sun, shade, soil, and water needs of plants, and using mulch for water conservation as appropriate. Of course it's wise not to stress plants by transplanting or severe pruning during hot weather, especially in July and August. It's also important to read carefully labels on garden products about temperatures for application.

Some plants wilt in strong midday sun, even though their root area soil is moist. If they perk up in the cooler evening, they don't need watering. In spite of being drought-resistant, newly-planted shrubs need special attention until their root systems are established: that could take as much as two years. Watering deeply as needed encourages root depth. However, established mature drought-resistant shrubs will need little or no watering, and some are even damaged by over-watering.

Here is a partial list of shrubs which should prosper in our area. They are cold-hardy in Zone 7, summer-hardy in Zone 8, and listed as drought-tolerant here, meaning able to exist on natural rainfall or only occasional watering. This list includes natives and non-natives. You will see many shrubby friends in this list.

Deciduous shrubs: barberry, beautyberry, boxwood, crape myrtle, flowering quince, forsythia, peegee and oakleaf hydrangea, pomegranate, possumhaw holly, spiraea x bumalda, viburnum, vitex, witch hazel, wisteria.

Evergreen shrubs: aucuba, autumn sage, Camellia japonica, C. sasanqua, cleyera, dwarf Hinoki cypress, glossy abelia, hollies, Japanese and common

See Plants, continued on p. 8

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Calendar And Notes

March

The *32nd Annual Jonquil Festival* at Old Washington Historic Park will be held March 3-5, 9 a.m. - 5 p.m. \$2 for parking. (870) 983-2660.

John Beneke will teach *Landscape Fundamentals* Mondays March 6 - April 10, 6-8 p.m. or Wednesdays March 8-April 12, 9-11 a.m. Cost \$89. For registration information, call 666-0759.

The Ozark Folk Center will sponsor a *Medicinal Herb Seminar* March 11, 9 a.m.-5 p.m. Pre-registration is required (870) 269-3851.

Perennial Border Gardens will be taught by Mary Evans on Tuesdays, March 14-April 18 from 9-11 a.m. or Tuesdays, March 14-April 18 from 6-8 p.m. Cost \$89. For registration information, call 666-0759.

Master Gardener Meeting, March 14, 11:30 a.m., state extension office. 340-6650.

Four Seasons Gardening will be taught on Saturday March 11 from 9-11 a.m. by Mary Evans. Cost \$20. Call 666-0759 for registration information.

April

Organic Greenhouse Progressive Workshops, Levels I, II, III, & IV, will be held at the Ozark Folk Center April 5-8. For registration information call (870) 269-3851.

"Dallas Blooms" is the theme for a *Master Gardener Tour* by the Pulaski County Master Gardeners and Kruger Tours April 7-9 to the Dallas Arboretum. The cost is \$399 for double occupancy. Call Kruger Tours at (501) 224-8747.

Mary Evans will teach *Soil Preparation* on Saturday April 8 from 9-11 a.m. The cost is \$20. Call 666-0759 for registration information.

Master Gardener Meeting, April 11, 11:30 a.m., state extension office. 340-6650.

Landscape Construction will be taught by John Beneke

on Mondays, April 17-May 22 6-9 p.m. Cost \$89. Call 666-0759 for registration.

A *Spring Organic Garden Workshop* will be presented April 21 at the Ozark Folk Center. For registration information call (870) 269-3851.

A new course, *Garden Wildlife Habitat*, will be taught by Mary Evans on Saturday April 22, from 9-11 a.m. Cost is \$20. For registration information call 666-0759.

An Ozark Folk Center Garden Workshop: *Propagation and Seed* will be presented on April 22 and again on April 27. For registration information call (870) 269-3851.

Arkansas Master Gardeners will gather at Fairfield Bay April 24-25 for the annual meeting. Call 340-6650 or 671-2000 for more information.

On April 26 there will be an *Organic Container Herb Garden Workshop* at Ozark Folk Center. Call (870) 269-3851.

May

Another new course by Mary Evans will be taught Saturday, May 6 from 9 - 11 a.m. The cost for the *Patio & Container Gardening* course is \$20. Call 666-0759 for registration.

Master Gardener Meeting, May 9, 11:30 a.m., state extension office. 340-6650.

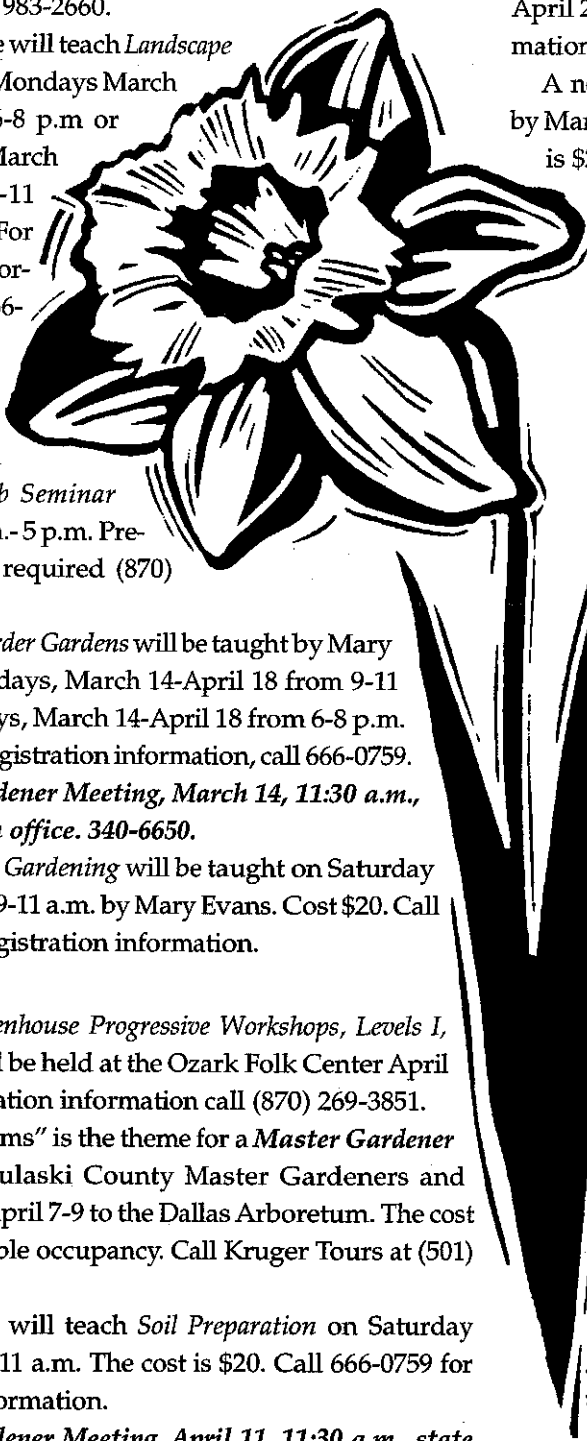
Ozark Spring Herb Extravaganza: Two days of seminars, tours, and herb vendors will be at the Ozark Folk Center May 12-13. For information call (870) 269-3851.

Trinity Episcopal Cathedral, 310 W. 17th Street, will host its annual *Flower Show* May 12-14. The featured speaker will be P. Allen Smith.

The *Southeast Regional Master Gardener Meeting* will be held in Tifton, Ga., May 14-17. Call Beth at 340-6650 for more information.

A *Spring Landscape Tour* will be led by John Beneke on Saturday May 20 from 9 a.m. until noon. The cost is \$29. Call 666-0759 to make reservations.

Garden Glory Days will include garden tours, demos, and teas May 26 - June 3 at the Ozark Folk Center. Call (870) 269-3851 for details.



Master Gardeners' Plot For March

By Libby Thalheimer

Cut Backs

When in doubt, don't! However, it is always safe to cut out diseased or dead wood. Cut woody shrubs, such as glossy abelia, acuba, euonymus, hollies, privet, pittosporum, and St. Johnswort, above a twig turning outward, not above a leaf bud. Wherever you cut, the shrub will thicken. Cut back beautyberry, butterfly bush, Clematis ('Comtesse de Bouchard', 'Crimson Star', 'Henryi', 'Jackmanii', 'J. rubra', 'J. superba', 'J. Lanuginosa', 'candida', 'Nell Moser', 'Ramona' and 'The President'), and bush roses to within about 1 to 2 feet of the ground. Cut out one-third of the oldest wood to the ground of forsythia, hibiscus, florist hydrangea, oakleaf hydrangea, peegee hydrangea, nandina, and summer-blooming spireas. Prune wisteria roots about 2 feet from main trunk. Prune shrub althea, crape myrtle, and mimosa according to desired form.

Cut back ivy hard, whether on a wall or as a groundcover.

Dethatch warm season grasses (Bermuda, Centipede, St. Augustine, and Zoysia). Mow Bermuda at 1 inch. Mow Centipede, St. Augustine and Zoysia at 1.5 inches. Mow Bluegrass, Fescue, and Rye at 2 to 3 inches.

Dig In

March is the best month to move crape myrtles. Plant balled and burlapped flowering cherry trees and roses before they break dormancy. Flowering shrubs may be moved with a ball of dirt. Small plants may be moved bare-rooted.

Report houseplants. Try rooting some cuttings from azaleas, carnations, chrysanthemums, shasta daisies, hollies, flowering pinks, roses, and other shrubs.

Divide established perennials, and replant in an enlarged area to prevent crowding. If planting the divisions in the same site, add organic matter and fertilizer before replanting.

Plant perennial seedlings at their proper depth now for maximum root establishment. Pull or cut away sprouts of lilac and forsythia and transplant.

Plant arugula, one-year-old asparagus crowns, beet seedlings, broccoli plants, cauliflower seedlings, clematis vines, ferns, gladioli corms (plant at two-week intervals for extended blooming), horseradish crowns, kohlrabi seedlings, leek seedlings, regal lilies, onion trans-

plants, pansy seedlings, potato seed pieces, rhubarb roots, tuberose, and zephyranthes lilies. Be sure to water in new plantings, and then cover with mulch.

Fertile Ground

Fertilize all in the garden (except acid-loving plants and iris), including cool season grasses (Rye, Fescue, and Bluegrass), and houseplants. If you use a chemical fertilizer, be sure to combine it with plenty of humus, or composted manure. Using chemical fertilizers without any organic amendments will eventually burn up everything living in your garden. Apply sulfur or bone meal to tulips and daffodils; aluminum sulfate to gardenias; wood ashes to peonies; lime to clematis and ivy. Replenish mulch in beds and borders.

Sow What?

In a hot house, cold frame, or in a bright window indoors, sow brussel sprouts, chard, cucumber, nicotiana, peas, pepper, scabiosa, summer squash, tomato seeds and verbena.

The annuals, alyssum, calendulas, carrots, collards, sweet corn kernels, dianthus, kale, lettuce, lobelia, mustard greens, parsnip, sweet peas, pansies, radish, snapdragons, and turnip seeds can be planted outside now.

Who's Bugging You?

To prevent thrips on gladioli, soak corms for three hours in a solution of 1 1/2 tablespoons of Lysol to a gallon of water before planting. Apply pre-emergent herbicide on all grasses. Apply fungicide on cool-season grasses (bluegrass, fescue, and rye) to control brown patch or dollar spot. If there has been a problem on red-tipped mulch, apply fresh spray with Daconil, Funginex, or Bordeaux now and again in 2 weeks. (Consider replanting with an alternate evergreen for roses.) Apply final dormant oil spray for roses.

March Bloom

Anise Florida, azaleas, camellias, chionodoxa, crabapples, daffodils, forsythia, hyacinths, early iris, Carolina jessamine, kerria, magnolia stellata, maple, mertensia, muscari, myosotis, oxalis, pansies, flowering peach, pearl bush, phlox subulata, photinia, English primrose, quince, redbud, spirea, tulips, Viburnum burkwoodii, violets, wisteria, and woodbine.

What Works!

By Kathy Kohl

Spring has just about sprung and we're all itchin' to get to diggin'. There were some great work days in February and, judging from all the inspired ideas and suggestions that have been passed along this month, everybody's mind is in the garden!

Slugging It Out

A Master Gardener suggests that putting cedar chips around hostas will keep those pesky ravenous slugs away.

Traps work great, too. Place two wet clay pots upside down, one inside the other, a large and a small one, and after a couple of days and nights there should be lots of slugs trapped under the pots.

Dorothy Veirs thinks it a good idea to encourage toads to take up house-keeping in your yard, as they find these slimy garden pests to be delightfully tasty morsels and will also eat bugs galore all summer. Just don't spray, and be sure they have a water source to enjoy.

It's Sowin' Time Again

Lynda Harkenreader reminds us to start tomato seeds six to eight weeks before time to put them out — so we should get busy. Who among us isn't ready for a home grown 'matar? Lynda also recommends that we home gardeners practice crop rotation, just as the farmers do, to prevent soil depletion and recurring diseases.

Gardeners are also masters at recycling, and Cecelia Buck has a great idea for those sandwich containers with the clear plastic lids. She starts seeds in them, using peat pellets for soil. It stays nice and moist inside, giving the seeds the perfect environment for germination. Cecelia has good luck starting many of those hard-to-find plants by placing her seed starters 4 inches under a florescent light.

And speaking of recycling in the garden, Bonnie Cargile says don't forget those pantyhose when you need garden ties. Just cut them in strips and have them ready when all those plump, juicy tomatoes cause your plants to droop.

And More Good Information

A conscientious gardener tells us to always remember

to turn our garden tools pointed-side down to help prevent those garden accidents.

Annette Hurley went to the doctor for a tetanus shot after being bitten by an animal. The doctor said that he gives many tetanus shots to gardeners for puncture wounds which happen in the garden. So be careful. Keep your tetanus immunization up to date.

And this mild winter has encouraged an early crop of weeds so better get started pulling, digging, and spraying them before they get a chance to set seed. Garden.com recommends using a bottomless pot or coffee can to apply herbicide directly to weeds.

Anyone interested in tree ordinances or landscape ordinances of the City of Little Rock can call Mary Douglas at 225-2584. There is a citizen-based action committee working to pass the ordinances developed by the Land Alteration and Landscape Review Task Force over the past year.

By The Light Of The Moon

The Lunar Gardening Guide suggests the following dates for gardening in the month of March:

Plant root crops March 1-5, 19-31

Above ground crops March 6 - 18

Flowers and transplanting March 9, 10, 13, 14, 22

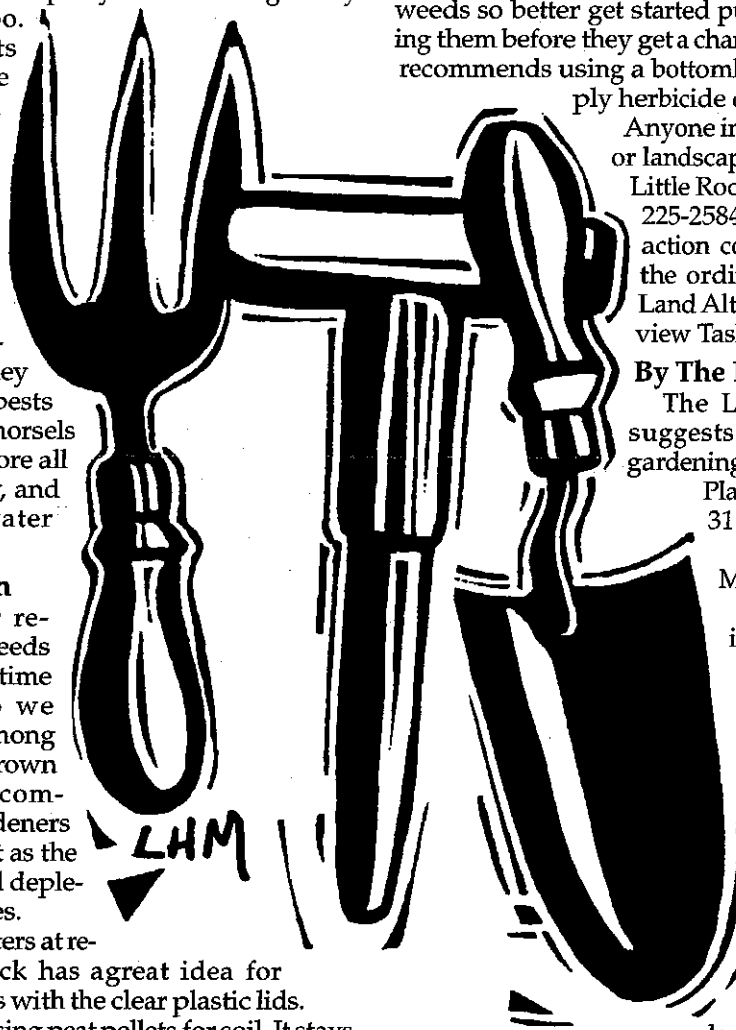
Prune March 11, 12, 17, 27, 28

New Kids On The Block

Shalah Brummett will no longer be writing the "What Works!" column and has passed the pen on to three November Master Gardener graduates: Lynda Harkreader, Mary Douglas, and me, Kathy Kohl.

Shalah is a hard act to follow, and it takes three of us to pick up where she is leaving off. We're calling on our sister and brother Master Gardeners to pass along gardening tips, short cuts, successes as well as failures, any bits of information you pick up from friends or magazines, or something you see on TV or learn at a nursery, (you get the idea) so we can share it in "What Works!"

Send e-mail to kkohl2@juno.com or drop us a note in care of Kathy Kohl, Post Office Box 250524, Little Rock, Arkansas 72225-0524. Don't know how to put it in writing? Call me! 376-4552 or Beth at 340-6650.



Garden Surfing At <http://garden.com>

By Debra Atencio

Garden.com is a lovely and informative site to visit. Its home page and subsequent pages are colorful and easy to navigate. The site is organized by four categories: *Shop*, *Design a Garden*, *Our Community*, and *Magazine*. The left side of the home page has search engines that can take you directly to your area of interest without drilling through the four categories. The rest of the page displays highlights from their *Garden Escape* magazine and what's new and on sale at the site.

Shop

Under *Shop*, *Garden.com* offers over 20,000 products that range from seeds, bulbs, trees, shrubs, garden furniture, books, garden tools, and gifts that can be shipped by mail. *Garden.com* buys plants from nurseries that specialize in just one type of plant. And there is a detailed profile on each of their suppliers. *Garden.com's* plants are guaranteed or your money back. If you like shopping online, this is the store for your garden and gift needs.

Design A Garden

Under *Design a Garden*, there's a plant finder that will allow you to find the right plant for your zone and sun exposure. *Garden.com* allows you to download its garden planner software to your PC for free. There is a short tutorial that will teach you how to use the software. If you are not into designing from scratch, *Garden.com* offers predesigned garden plans. If you want to find

the right plant for your garden or learn how to design a specific type of garden, this is the menu to select.

Our Community

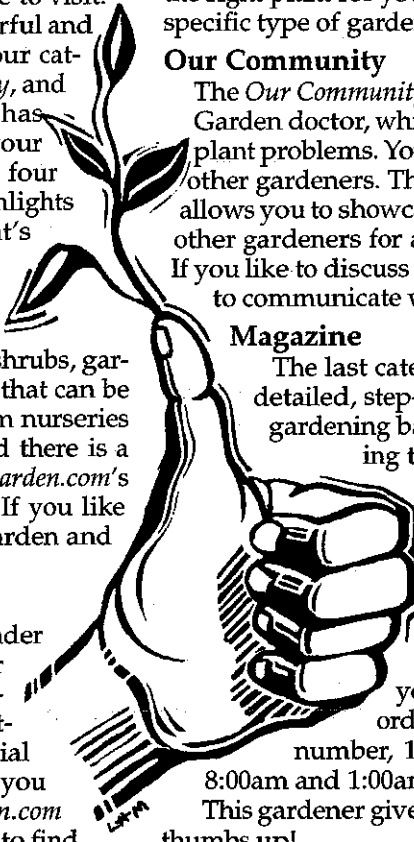
The *Our Community* category is the place to access the Garden doctor, which provides answers to an array of plant problems. You can also chat 24 hours a day with other gardeners. The site has a gardener's forum that allows you to showcase photos of your own garden, ask other gardeners for advice, or trade gardening secrets. If you like to discuss gardening, this is an excellent way to communicate with gardeners worldwide.

Magazine

The last category, *Magazine*, is the place to get detailed, step-by-step instructions on how to do gardening basics like drying herbs, transplanting trees, pruning, etc. The list goes on and on and is organized by season. This category also includes an editor's page, article search, glossary, and a *Garden.com* library. If you like to learn and do research, this is the category for you.

If you don't have internet access, you can subscribe to the magazine or order products by calling their toll-free number, 1-800-466-8142, any time between 8:00am and 1:00am (EST), seven days a week.

This gardener gives *Garden.com* an enthusiastic green thumbs up!



Project Highlights: A Monthly Article Featuring A Pulaski County Master Garden

By Gena Norris

The Old State House

In June of 1999, we were allowed to resume a popular Master Gardening project at the Old State House. The second oldest of our gardening projects, started in 1990, was put on hold for three years during the renovation/reconstruction of the building.

The highlight of the grounds is the garden surrounding the restored 19th century Victorian fountain, which is visible when you enter the front gate of the property. Surrounded by dwarf boxwoods and Boston ferns, the edge of the fountain is lined by grape hyacinth and narcissus. The ferns, hyacinths, and narcissus were chosen because of the constant splashing of water provided by the fountain.

Giant pansies provide color in the winter in the flat beds located in front and behind the fountain. In the summer, impatiens will fill the beds. Also highlighting the area are tulips and daffodils.

A section of the grounds is set aside as a Memorial Garden. Plans are underway to use many green plants in the area, which will be highlighted with daffodils. The daffodil bulbs were collected from the original property

and had managed to survive during the building renovation! Behind the building, and visible while driving down LaHarpe Boulevard, are beautiful "New Dawn" roses. In years past, the roses were breathtaking as their blooms cascaded over the rail and down the wall, high above the boulevard. The new roses are doing wonderfully, and those of us who remember the old roses are happy they have been restored to the area.

Master Gardener Sylvia Orton has praise for the staff of the Old State House and especially Ed Garretson. "They have truly helped us to make this project possible, consulting with us and working with us on plans for each new phase of the grounds."

Master Gardeners who have extra time from their own projects to volunteer may contact Sylvia Orton or Bettye Jane Daugherty. Spring planting will be held the first two Thursdays in May.

Visit The Old State House
300 West Markham, Little Rock
9 a.m. - 5 p.m. Mon - Sat; 1 p.m. - 5 p.m. Sun.

Hints And Tips From The Current Literature

Nitrogen Cycle

Plants can't use nitrogen directly from the atmosphere. Nitrogen is made available to plants via the nitrogen cycle, a complex system in which nitrogen is converted to the nitrates plants can absorb. These nitrates eventually reconvert into gaseous nitrogen and return to the atmosphere. The cycle is an amalgam of related tasks, many of which are carried out underground by microorganisms.

In the cycle's first phase, called *nitrogen fixation*, nitrogen in the air in soil pores is metabolized by bacteria and released as ammonia.

A second method of producing ammonia, called *ammonification*, is carried out by different soil bacteria. Ammonification releases nitrogen by breaking open cells in the soil's organic matter and converting the nitrogen in the cell proteins to ammonia.

The next phase of the nitrogen cycle is *nitrification*, which consists of two parts. The first is the conversion of ammonium to nitrite by bacteria. The second part is the conversion of the nitrite to nitrate, again done by bacteria of a different genus. Thus the nitrate can be absorbed by plants, and frees hydrogen ions.

Anaerobic microbes, which complete the nitrogen cycle, use nitrite and nitrates as a source of oxygen, resulting in the release of gaseous nitrogen back into the atmosphere.

Some plants have unique means of getting nitrogen. The best known are members of the legume family. A bacterium lives in the nodules on the roots and converts gaseous nitrogen to nitrates.

Gardeners use these legumes to build the soil nitrogen. It is important to remember that *you* can apply to your soil the organic material needed for the nitrogen cycle.

Taunton's Kitchen Gardener, October/November 1999

Damping-Off Disease

There are several fungi that cause damping-off disease of seedlings. These plant pathogens live in garden soil but also live on potting benches, seed containers, planting soil, and on the floor. Seeds sown indoors and those planted outside are both susceptible.

Damping-off can strike in three ways: before germination, the seeds turn dark and mushy; the first root from germinating seed becomes infected and the plant dies; or it harms the new seedlings at or near the soil line, causing the stems to shrivel and the seedlings to topple. There is no treatment for infected seedlings.

So be patient and wait until the outside soil warms. Then sow thinly, and thin new seedlings as they emerge. Indoors, sterilize the surface of tools, containers, and work surfaces with a mixture of 1 part household bleach and 9 parts water. Use pasturized seed-starting mix (you can do it yourself too).

To treat your own seeds, place a quantity of fungicide the size of two match heads in a seed packet. Seal the packet, shake, and sow the seeds directly from the packet.

Rebecca's Garden, March 2000

Plant Viruses

Viruses are too small to be seen, even with a microscope, but they can stunt growth, cause mosaic, and cause fruit to be deformed and mottled. They can significantly reduce yield.

Some viruses infect only plants of a single family; others infect a wide variety of plants. In most cases, it is impossible to diagnose the specific virus by observing symptoms, which often mimic other plant problems.

Viruses cannot move or enter plant cells on their own. They enter through a wound, which can be tiny. A routine gardening task can spread the virus. Humans, common garden insects, and nematodes can transfer the virus to the plant. Weeds can also carry many common viruses. Once inside the plant, the virus reproduces and spreads throughout the plant.

Viruses attack only the cells of their host plant. They have little effect on the health of people or animals, but all plants are susceptible to a long list of these pathogens. It is important to inspect new transplants or seedlings for these signs of viral infections: stunted growth, yellowed leaves, or a mosaic pattern on the leaves. Suspicious plants should be removed.

Recent advances have made testing plant material for viruses faster and more accurate. Many companies offer seeds and propagative parts that are certified virus-free. Seed catalogs offer cultivars with genetic resistance to the troublesome viruses.

Buying virus-free seeds and propagation parts, weeding, and removing suspicious plants early in the year are usually sufficient to keep viral disease at bay.

Taunton's Kitchen Gardener, February/Mar 2000

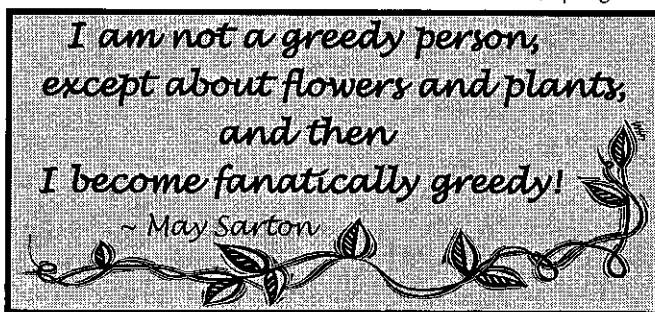
Pruning Vines

Pruning at the right time and for the right reason will optimize any vine's performance. A general rule is that spring-blooming vines should be pruned just after blooming, whereas summer and fall bloomers are pruned the following spring right before bud-break.

Prune vines to control growth, encourage flowering, or provide better air circulation. When the vine has reached the desired height and width, most pruning will be done to control growth to the limits you have set.

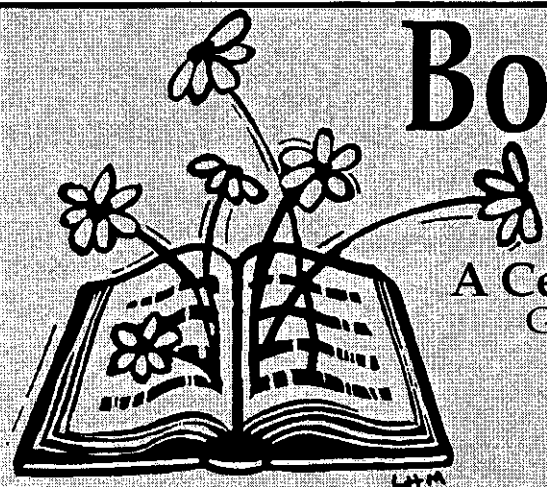
Specific directions are given for pruning clematis, trumpet vine, honeysuckle, climbing hydrangea, and Virginia creeper.

*Better Homes and Gardens Special Interest Publications
Perennials, Spring 2000*



Book Review

By Lois Clifton



A Celebration of Heirloom Vegetables: Growing and Cooking Old-Time Varieties

By Roger Yepsen

Workman Publishing, New York, 1998

A Celebration of Heirloom Vegetables is about growing, harvesting, saving the seeds, the variety, and cooking old-time varieties. Yepsen has found sources of forgotten strains from backyard seed sources. He brings back these lost varieties with stories of how they were rescued.

We are reminded of the time when every home had a garden and every seed was a treasury of genetic information. Yepsen calls seed saving "the international movement you can join with nothing but a shovel, a packet of seed, and good intentions."

Once you have become hooked on seed saving, you'll then want Yepsen's advice on sprouting and harvesting each variety. His advice comes first-hand because most vegetables he's depicted were grown on his Pennsylvania farm, where he lives with his wife and children.

He emphasizes ways to keep genetic lines pure, how to collect the seeds, and how to pollinate plants. Along with growing old-time varieties comes the traditional culinary uses. There are more than 60 recipes borrowed from families who have passed them from one generation to another. As with any creative craft, recipes are meant to be tampered with. By tampering, we gather confidence and, over time, can hope to arrive at a personal style.

These heirloom vegetables are all varieties that nature alone has produced, untouched by genetic science and modern technology. More than 50 full-color illustrations show these varieties, from the ugly to startlingly beautiful.

And I must mention the Hybrid Controversary. These plants yield seeds that don't work. Some are sterile, others produce offspring that don't look like the parent and almost certainly are inferior to it.

Heirloom gardening is delightful to the eye. It is also a wonderful way to bring a bit of our grandparents' living legacy to our table today. A garden is an unusual meeting place, right in our backyard, between us and other people and other times.

In the Sources section, Yepsen lists the places and addresses where heirloom vegetable seeds can be purchased and the type of seed the source has. Sometimes seed can be found in your regular seed catalog, usually in an heirloom section. There are, also, some organizations like Seed Saver Exchange and Seeds of Diversity, which have a published inventory.

By contacting these sources it is possible to bring to our tables a variety of foods which are not in our local food stores or markets. *

Birds Versus People: The Strawberry Competition

Most of us like to see birds in and around our gardens. But once in a while they become too numerous and compete with us for what we eat. Chances are you're frustrated about how to keep them out of your strawberries, so here are a few tips to help you even the odds.

Birds are difficult to control because they are extremely mobile. If you scare them from one area, they'll congregate in another. If your neighbor scares them, they may fly back to your patch. They often develop a movement pattern that takes them from one feeding area to another throughout the day. And you can't just stand there and flap your arms at them. When the birds find out you can't run fast enough to catch them, they'll just stay out of your reach.

Miscellaneous Contraptions

Some people use scarecrows, but, after a few days they become roosts for every bird in the neighborhood. Somewhat more effective are rubber snakes, plastic owls, eye balloons, flapping wooden ducks, noise-making "clickers", and devices that imitate squawking birds. Aluminum pie plates suspended by a string or wire above the plants in such manner that they twist and turn in the breeze can be somewhat successful in keeping birds away. However, these must be moved regularly and interchanged with other devices, otherwise the birds

become used to them and take over the garden again. Other repelling devices, like ultrasonics, aren't proven in the field. You would be better off to stay away from this equipment and use the money you save to buy fresh-picked strawberries from a farmers' market.

Netting

Protective netting, properly installed, does a good job of keeping birds out of small strawberry plots. It is inexpensive and easy to install. It does, however, make picking somewhat cumbersome. The netting mesh must be 1/4 inch in diameter or smaller, without any holes. Secure all the edges to the ground. You may have to pile loose soil over the netting to keep birds from working their way underneath. Suspend the netting above and away from the edges of the plants. Otherwise, birds will walk across the plants and harvest the fruit through the netting's mesh.

Mylar Tape

Another solution, particularly for larger plants, is mylar tape. This "bird tape" is 1/2 inch wide mylar with red- and silver-coated reflective surfaces. If set up properly, it is the least expensive, most effective

See *Birds*, continued on page 8

Master Gardener Alert!

Project Workdays

The *Old State House* regular work date is at 9 a.m. on the 1st Thursday of each month.

The *Governor's Mansion* project meets every Thursday at 9 a.m.

The *Old Mill* regular work dates are the 1st and last Tuesday of each month at 9 a.m. starting in March.

There will be a cleanup day at *Pinnacle State Park* in March.

For more information call the County Extension Office, 340-6650.

Master Minutes

There is a complete bound set, Volumes 1-10, of the *Master Minutes* in the Master Gardener Library. Current volume issues are being placed there also, in a black temporary Acco binder.

Travel

Watch for announcements of trips to a prairie garden, to Memphis, and a fall trip to Eureka Springs.

Meeting Information

If you're interested in the Southeast Regional Meeting in May, call Beth at 340-6650 for the list of speakers. *

Trading Post

By Frances Young

Carolyn Goettsch, 835-8522, has green liriopse.

Dolores LeCompte, 664-4795, wants a dwarf lemon tree.

Lisa Booth, 455-4593, wants bamboo cuttings and shade ground covers.

Jan King, 758-3446, has butterfly bush.

Trudy Goolsby, 835-5068, has *Keria japonica* (yellow rose of Texas).

Anita Chamberlin, 758-1959, has green, clumping liriopse.

Lois Clifton, 753-6498, has althea — white with red center.

Debra Atencio, 377-4141 or 224-2439, wants butterfly bush.

Nell Stephens, 225-3484, has liriopse. *

*We had a garden,
and that was enough.*

—Maddie Thornhill

Birds, continued from page 7

way to scare off birds. To set it up, drive a stout stake in the ground at the end of each row on each side of the plants. One stake between rows is enough if the rows are close. Tie a cord or string around each stake 3 or 4 inches above the ground. Leave 6 to 8 inches of free cord at both ends.

Attach a short piece of fiberglass strapping tape to the end of the bird tape so that the ends are stuck together, but leave an open loop in the strapping tape. Run the string through this loop. Stretch the bird tape out tightly to the next stake. (The stakes should be less than 30 feet apart.) Stick another length of strapping tape to this end, twist the mylar three or four times, and tie the string or cord through the loop. The tape should sag slightly but should not be less than 3 inches or more than 5 inches from the ground. It also should not touch the plants. If it does, either move the stakes away from the plants a few inches or remove some of the leaves. The tape should move freely. When a breeze or slight wind blows, it will flash in the sun.

Mylar tape is strong, but it quickly breaks where it is knotted or is wrapped around a hard object, like the stakes. Tying them to the stakes or string doesn't work, but the fiberglass strapping tape holds well and does not stress the mylar. The string or cord lets the mylar freely rotate in the wind, scaring off the birds with a fantastic display of flashing red and silver light.

Don't use bird tape as streamer or string it across the tops of the plants, it is useless this way. Birds feed between the rows. If you don't believe it, sit in your garden and watch the birds for 15 or 20 minutes. Most will fly into the strawberry patch, land on the ground between the plants and eat the ripe strawberries from there. Tape strung above the plants only alters their flight path a little.

Bird tape must be constantly monitored and repaired or replaced if necessary. If it stretches out, retighten it. When plant leaves grow and interfere with the tape's movement, trim them. You must replace bird tape that has been out in the sun more than 6 weeks, because the red and silver coating wears off.

This information is taken from Washington State University Cooperative Extension Publication EB1641. If you cannot locate the mylar tape (tradename Birdscare Flash Tape) locally, contact Modern Agri-Products, 322 Main St., Lynden, WA 98264. 1-800-FLASH-96.



Plants, continued from page 1

boxwood, junipers, loropetalum, mahonia, nandina, pittosporum (Japanese), pyracantha, sumac (fragrant) 'Gro-Low', Viburnum 'Es-kimo', wax myrtle (or bayberry), wintergreen barberry, winter jasmine, yew, and yucca.

And don't forget, when you're planning, how striking an accent a beautiful ornamental grass can be! *

Spread The News!

If you have an item of interest or a newsworthy photo, or need to tell the general membership something about your committee, this newsletter is your opportunity to reach all Pulaski County Master Gardeners.

Please provide your information to us by the March MG meeting to see your message in the April issue of the newsletter.

You may bring your information to the meeting or send it via: Beth Phelps, Pulaski County Cooperative Extension Office, 2901 West Roosevelt Rd., Little Rock, AR 72204, 340-6650, bphelps@uaex.edu; Mrs. McKinney, 340-6650; Rose Hogan, 374-9429, rhogan@aristotle.net; or Cheryl Kennedy, 753-8192, fax 753-6305, and inthegarden@aristotle.net.

If you have late-breaking news unavailable by the meeting date, Beth may be able to add it to her letter that is mailed with the newsletter. *

Master Minutes Staff — 2000

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	Lynne Woods
	Frances Young

Pulaski County Master Gardener Volunteers are trained volunteers working with the University of Arkansas Cooperative Extension Service and Pulaski County Government to provide demonstration gardens and horticulture-related information to the residents of the county. In 1999, these volunteers gave more than 8,400 hours of service.

Elisabeth J. Phelps
County Extension Agent — Agriculture



Scented-Leaf Geraniums Add Spice To Your Garden

By Debra Atencio

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Background

The scented-leaf geranium is from the family *Geraniaceae*, genus *Pelargonium*. This wonderful plant originated in South Africa and was brought to America by sailors in the 17th century.

It was popular with the Victorians, who planted these fragrant plants in window boxes, container pots, and landscape gardens. However, the Victorians only had access to the lemon and rose geranium species.

Forgotten for awhile, these geraniums are popular again, but this time in a variety of scents.

Characteristics

This plant grows tiny flowers that come in white, pink, red, and purple shades. Although it lacks showy flowers, it more than compensates with its incredible aroma and beautiful foliage. The leaves can be lobed, finely cut, furry, or coarse. Leaf colors range from dark to light and can be variegated. Different species grow from a few inches to several feet. But the most spectacular property of this plant is its aroma, which is released by sunlight, a touch of hand, a rain shower, or a breeze.

For a rose scent, plant 'Old Fashioned Rose', 'Rober's Lemon Rose', 'Chicago Rose', 'Attar of Roses', or 'Silver Leaf Rose'. For citrus aromas, try 'Citrus Rose',

'Dwarf Lemon', 'GrapeFruit', 'Lemon Crispum', 'Fingerbowl', or 'Big Lemon'. For a mint smell, plant 'Staghorn Peppermint'. For spice aromas, try 'Nutmeg', 'Golden Nutmeg', and 'Old Spice'.

And because these plants have wonderful aromas, they are excellent to use in potpourris, teas, baking, and flavoring sugars. To flavor a cake, line the cake pan with leaves. Pour batter over leaves and bake. Remove the leaves before frosting the cake or serving.

For flavoring sugars, use only healthy leaves (no brown spots). Rinse and dry thoroughly. Layer the sugar and leaves in a clean jar. Starting with the sugar, pour in about two inches of sugar then layer with a leaf. Keep alternating the sugar and leaf until jar is full. Seal tightly and store in a cool dry place for a few weeks to allow the fragrance to permeate the sugar. This makes a wonderful homemade gift.

Outside Care

'Scented-leafed Geraniums' are tender perennials so they need to be planted outside after any danger of

See Geraniums, continued on page 7



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Visit our web site at:
<http://www.uaex.edu>

Calendar And Notes

April

Little Rock Council of Garden Clubs, Inc. Plant Sale Extravaganza 2000, Saturday, April 1 from 9:00 a.m. - 3:00 p.m. at 1501 Kavanaugh Blvd. Plants and other related items. Lunch from 11:00 a.m. - 1 p.m. Costs \$5.

Organic Greenhouse Progressive Workshops, Levels I, II, III, & IV will be held at the Ozark Folk Center April 5-8. For registration information call (870) 269-3851.

"Dallas Blooms" is the theme for a *Master Gardener Tour* by the Pulaski County Master Gardeners and Kruger Tours April 7-9 to the Dallas Arboretum. The cost is \$399 for double occupancy. Call Kruger Tours at (501) 224-8747.

Second Annual Arkansas Unit Herb Society of America Plant Sale, "Celebrating Herbs", Saturday, April 8 from 7:00 a.m. - 3:00 p.m., will be held at the River Market.

Mary Evans will teach *Soil Preparation* on Saturday, April 8 from 9-11 a.m. The cost is \$20. Call 666-0759 for registration information.

Master Gardener Meeting, April 11, 11:30 a.m., state extension office. 340-6650.

The *North Central Arkansas African Violet Society* will have an AVSA-judged show and sale Saturday, April 15 from 9:00 a.m. - 4 p.m. at the Jacksonville Community Center. New this year will be a potting demonstration and for plants and a tabletop raffles light stand. For more information, call 982-4171.

John Beneke will teach *Landscape Construction* on Mondays, April 17-May 22, 6-9 p.m. Cost \$89. Call 666-0759 for registration.

City Planning Commissioners Hearing on *Land Alteration and Landscape Ordinance Draft*, April 13, 4:30 p.m. at City Hall.

Pulaski County Master Gardeners Tour April 13 to Faulkner County. For information on the schedule, call 340-6650.

Baptist Health Foundation Bolo Bash 2000, April 19 at 11:30, luncheon and garden show features special guest Paul James, HGTV's "Gardener Guy". Ticket are \$45 and \$55. For reservations, call (501) 202-1839.

A *Spring Organic Garden Workshop* will be presented April 21 at the Ozark Folk Center. For registration information, call (870) 269-3851.

Mary Evans will teach a new course, *Garden Wildlife Habitat*, on Saturday, April 22, from 9-11 a.m. Cost is \$20.

For registration information, call 666-0759.

The Ozark Folk Center will present a *Garden Workshop: Propagation and Seed* on April 22 and again on April 27. For registration information, call (870) 269-3851.

Arkansas Master Gardeners will gather at Fairfield Bay April 24-25 for the *Annual MG Meeting*. Registration is already closed. Call 340-6650 or 671-2000 to get on the waiting list.

On April 26 there's an *Organic Container Herb Garden Workshop* at the Ozark Folk Center. Call (870) 269-3851.

May

The *Quapaw Quarter Tour of Homes, Grand Victorians 2000*, will feature five of Little Rocks most elegant Victorian homes and gardens. On May 6, 11 a.m. - 1:00 p.m., a box lunch and tour of the gardens will be led by Janet Carson and Cecelia Buck. Cost \$20.

Mary Evans will teach another new course Saturday, May 6 from 9-11 a.m. The cost for the *Patio & Container Gardening* course is \$20. Call 666-0759 for registration.

Master Gardener Meeting, May 9, 11:30 a.m., state extension office. 340-6650.

Ozark Spring Herb Extravaganza: Two days of seminars, tours, and herb vendors will be at the Ozark Folk Center May 12-13. For information, call (870) 269-3851.

Trinity Episcopal Cathedral, 310 W. 17th Street, will host its annual *Flower Show* May 12-14. The featured speaker will be P. Allen Smith.

Attend the *Southeast Regional Master Gardener Meeting* in Athens, Ga., May 14-17. Call Beth at 340-6650 for more information.

Mark your calendar for the *Pulaski County Master Gardeners Spring Picnic* on May 18. Hors d'oeuvres at the Old Mill will be followed by barbecue in Lakewood.

John Beneke will lead a *Spring Landscape Tour* Saturday May 20, 9 a.m.-noon. The cost is \$29. Call 666-0759 to make reservations.

Garden Glory Days will include garden tours, demos, and teas May 26 - June 1 at the Ozark Folk Center. Call (870) 269-3851 for details.

June

Pulaski County Master Gardeners will take a *tour to east Arkansas* to see the Grand Prairie and a herb nursery. More later.

Mt. Magazine State Park Butterfly Festival is scheduled for June 10-11.



April Checklist For Master Gardeners

By Libby Thalheimer

Cutting Back

All *spring-flowering shrubs* may be pruned once they have finished blooming. Remember to leave the greenery of spring blooming bulbs until it begins to decline.

Start mowing this season with good sharp blades on your mower.

For specimen blooms, *disbud* peonies and roses. Start cuttings of dwarf ageratum, chrysanthemums, torenia, and verbena in a cold frame.

Dig In!

Set out young plants of basil, bergamot, salad burnet, chervil, clematis, cress, eggplant, lemon balm, marjoram, mints, pennyroyal, peppers, pink showy primrose, rosemary, creeping thyme, tomatoes, and sweet woodruff. Plant sweet potato cuttings.

If an unexpected late freeze is forecast, cover tomato plants with paper bags, baskets, straw, or anything that will hold the warmth of the day around the plants. If you cover with plastic, support the covering so that it does not touch any leaves. During the day, remove the plastic or vent it to prevent overheating. Remove all covering as soon as the weather warms up again.

Summer bulbs such as cannas, caladiums, dahlias, gladioli and tuberoses can be set out now. You can also grow agapanthus, calla lilies, caladiums, geraniums, gloriosa lilies (vines), and pandanus in containers on a porch or terrace.

Do not plant dormant roses after April 15th. Potted roses can be planted until May 15th.

Divide and replant perennials at this time, making sure new shoots are present with each division. Replant at the same depth and water with "Superthrive." As shoots emerge from those unlabeled perennials, try to identify and label them.

Transplant seedlings from the cold frame of early planted perennials to get them off to a good start before it gets hot. But take care not to put tender bedding plants out too soon, as we have frost until the end of April.

After Easter lilies fade, plant the bulbs in a sunny, well-drained location. Let the foliage remain all summer, then cut it back with the perennials as they die in the fall. Next year, the bulbs will not bloom for Easter, but will bloom in late spring or early summer.

Fertile Ground

Mulch all new plants, shrubs or trees at the time of planting. It will add a great deal to the plants' chance of success if you keep the ground around them from caking

on top. Mulching also reduces the need to weed and hoe.

Fertilize lawns with a complete fertilizer. If centipede and Bahia lawns yellow even after they have been fertilized, they probably need an extra shot of iron. Spread iron sulfate granules over the lawn at the rate of 10 lb. per 1,000 square feet. Use a fertilizer spreader to distribute the material and water well after applying. Or spray the lawn with a solution of liquid iron, such as Greenol, at the rate recommended on the label.

Lightly feed roses with cottonseed meal, Milorganite, or commercial rose food.

For berry-producing plants, apply a small amount of Epsom salts.

Feed azaleas after flowering with a fertilizer that contains iron and other elements. (Follow package directions carefully.) Azalea roots are compact, fibrous, and shallow, and they grow near the surface of the soil. So granular or foliar feedings both work well.

For the pansies, calendula, and other cool-season annuals, an application of foliar feed fertilizer will help prolong the vigor of your plants.

Sow What?

Plant cool season crops through the month of April. After April 10th, sow thinly in a well-prepared bed and cover as directed on the seed packet: abelmoschus, basil, beans, borage, cleome, sweet corn, cosmos, crotalaria, cu-

cumbers, dill, gomphrena, grasses, hollyhocks, marigolds, melampodium, melons, morning glories, summer savory, sunflowers, squash, tithonia, and zinnia.

In a cold frame, plant early asters, Canterbury bells, celosia, columbine, foxglove, petunias, and sweet William.

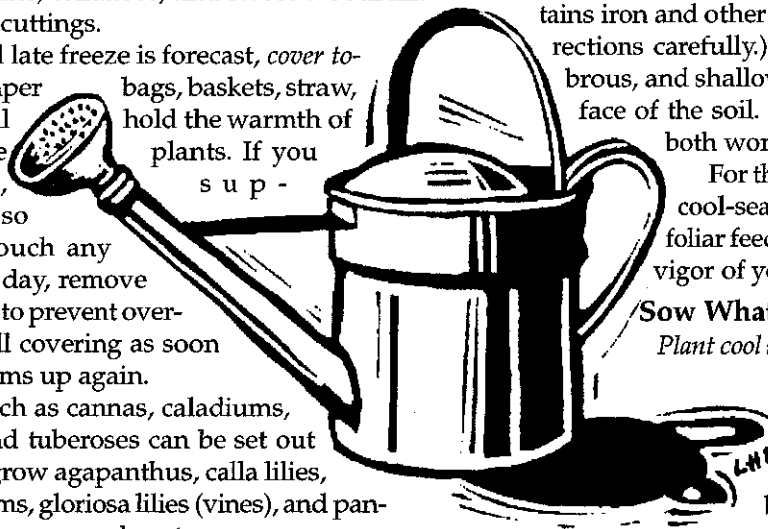
Who Is Bugging You?

Rotate or change chemicals you use, to more effectively control pests as they build up resistance to chemicals over time. Also, chemicals lose potency, so do not carry them over from year to year.

Aphids are hungry for your pansies and other plants this time of year — inspect the buds and undersides of leaves for signs of them. Control white fly, aphids, and lacebugs with insecticidal soap or other appropriate measure as soon as you notice them — before they get out of control.

Chemical control of black spot should begin in spring as the foliage starts to expand. Additional spray should

See Checklist, continued on page 7





What Works!



By Kathy Kohl

We're well in to the first spring season of a brand new Millennium, and signs of new life are busting out all over! It's just a matter of time before our gardens will be cornucopias of fresh produce if we manage to keep all those life-sucking, leaf-chewing pests from enjoying the bounty of our labors before we can!

Best Buds

"Whatever befalls the earth, befalls the children of the earth. We did not weave the web of life, we are merely a strand in it. Whatever we do to the web, we do to ourselves."

~ Chief Seattle

It seems more and more folks are thinking "organic" these days and looking for techniques to replace the use of pesticides as a means of protecting our food sources and our Mother Earth. I received some great information recently to pass along about companion planting as an organic technique to discourage those unwanted garden pests and create a preferred habitat for those we do want moving in. We all know that herbs smell good, taste good and many are just downright eye-catchers in the garden. But they can also be organically handier in the garden than pockets on your apron:

Thyme deters cabbageworms and *dill* attracts tomato hornworm; a few sprigs of *rue* scattered about will help control flies, as well as the Japanese beetle. However, handle *rue* with care as many people get a poison-ivy-like rash from the oils.

Growing *sweet basil* here and there in your garden, or scattering chopped leaves about, will repel aphids, mosquitoes, and mites. Basil also has antifungal properties, and it reportedly slows the growth of milkweed bugs. Cabbage pests and aphids dislike the *mints*, and colorful *marigolds* are an old standby garden repellent (but only the scented variety works).

Many beneficial insects take shelter amongst our flowering herbs; if you want butterflies, plant plenty of *fennel* and *parsley* to share with the caterpillars.

A Hand-y Idea

There are not many gardeners who are also hand models — if your hands suffer like mine, then you'll appreciate this contribution:

Gardener's Hand Cream

- 3 tbsp. beeswax
- ½ cup sesame oil
- 1 tbsp. coconut oil
- 1 tsp. honey
- 3 drops lavender essential oil
- ½ tsp. baking soda

Mix all ingredients, and heat at medium temperature until melted. (You can do this in the microwave.) Allow

to cool down slightly but while still warm pour this into jars. This would make a nice gift, too.

And More!

A great recycling tip we received is to use crushed aluminum cans in place of rocks in the bottom of large planters for drainage and easier handling as they will be considerably lighter weight.

Save those clear plastic bags that you get new linens and such in, as they make great mini-greenhouses for germinating seeds.

Another gardener found the answer to pulling sticky and poisonous vines, handling pruned rose bush limbs, etc.: cooking mittens. Leave your garden gloves on, don a couple of old cooking mitts and viola! Just make sure they cover your forearms, for the best protection.

Lynda Harkenreader reports that she went to dig a redbud tree (there are plenty to share so contact Lynda if you're interested) and found them growing beautifully in a pile of roofing shingles and leaf mold.

And another great tip passed along by Master Gardeners is that many early wildflowers for February and March are now available in our nurseries as perennials.

They also say the periwinkle we've seen blooming in blues and whites makes a great groundcover under our shady trees.

By The Light Of The Moon

The Lunar Gardening Guide suggests the following dates for gardening in the month of April:

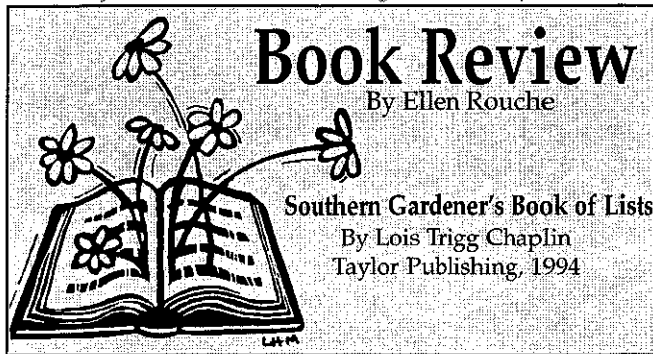
- Plant root crops: April 1-3, 18-30
- Plant above-ground crops: April 4-17
- Plant flowers and transplants: April 6, 10, 11, 20
- Prune: April 7, 13, 23, 24

Calling All Master Gardeners

Keep those cards and letters and e-mails and phone calls and smoke signals coming in! Continue passing along your great gardening tips, short cuts, successes as well as failures, and bits of information you pick up anywhere to share in "What Works!" by e-mail, kkohl2@juno.com, or drop a note in the mail in care of Kathy Kohl, P.O. Box 250524, Little Rock, AR 72225-0524, or call me at 376-4552.

Remember, Brother and Sister Master Gardeners, you write this column — with your contributions, I'm just the reporter.

Ciao! for now.



Suppose you decide to replace Bermuda grass in a low-lying area with a groundcover that does not mind constantly having its feet wet. Maybe you want to plant a tree that will reach 35 to 40 feet, grow quickly, thrive in sandy soil, and have yellow foliage in the fall.

If you want to discover options without spending a great deal of time reading books, searching the Internet, or visiting nurseries, you can readily consult one reference book: *The Southern Gardener's Book of Lists*. This fairly small book contains a great deal of information and is an invaluable reference which answers many landscaping questions. It's also a great book to have at hand when you are answering the Master Gardener phone line.

The book is divided into several sections. The introductory portion contains a list of reference books that are beneficial for all gardeners to possess. Then there are separate sections on trees, shrubs, roses, azaleas, ground covers, vines, ferns, annuals, and perennials. Each section contains categories and examples from each zone of the South. Representative trees in the lists that relate to Arkansas include:

Wet sites: sycamore, bald cypress, river birch.

Dry sites: redbud, crape myrtle, cherry laurel.

Poor, sandy soil: bald cypress, redbud, Eastern red cedar.

Heavy soils: sweet gum, red buds, river birch.

Multiple trunks: flowering dogwood, crape myrtle.

Fast-growing: weeping willow, crape myrtle, sweet gum.

On the cutting edge: Texas white redbud, Fantasy crape myrtle, Trident maple.

Understory trees for piney woods: Japanese maple, cherry laurel, flowering dogwood.

Container trees: Japanese maple, crape myrtle.

Striking winter foliage: American beech, eastern red cedar, sweet bay magnolia.

Privacy trees to hide ugly views: American holly, eastern red cedar, Leland cypress, cherry laurel.

Small lots: redbud, crape myrtle, Japanese maple, Japanese flowering apricot, Kousa dogwood.

Trees with surface roots: water oak, southern magnolia, maples.

Trees under which grass will not grow: southern magnolia, American beech, white pine.

Ornamental berries or seed pods: Flowering dogwood, sumac.

Interesting cones: southern magnolia, amur maple.

Inconvenient litter: blackjack oak, river birch, white poplar.

Weak wood: tulip polar, river birch, Bradford pear.

Fragrant blossoms: sweet bay magnolia, southern crabapple, amur maple.

Showy bark — color-/texture: sycamore, river birch, white oak.

Unusual foliage color: black locust, eastern red cedar.

Long-lived: white oak, post oak.

"Perfect" form: Leyland cypress, Bradford pear.

Reaching trees: Japanese maple, river birch.

Character trees: live oak, Virginia pine.

Scruffy: eastern red cedar, mulberry.

To attract hummingbirds: red buckeye, tulip polar.

Substitutes for Bradford pear: aristocrat pear, autumn blaze pear.

There is a sampler of trees by color of flowers and season. Additionally, each section contains tips by horticulture professors or professional nursery owners. *

Growing A Beautiful City With Our Hands And Voices

By Mary Douglas

Urban Growth: Maybe you've noticed that Little Rock is not as green as it once was. Hillsides are being scalped and leveled. Big-box chain stores rush in that involve little individuality and lots of uprooting and earth-moving.

Democracy in Action: Our democratic system depends on citizen involvement in policy-making. So Mayor Dailey established a citizen's task force in 1998 to review existing landscaping, excavation, and tree-preservation ordinances. This January, the task force presented recommendations to the public and their representatives—the City Planning Commissioners. On Thursday, April 13, at City Hall, this public discussion will continue. After all who want to speak are heard, the 11 Commissioners will vote. Their recommendations will be reviewed by the Board of

Directors in another public hearing this summer. ("Master Minutes" will publish the date in a future issue.) The ordinances they vote *in* or *out* will determine the face of our community.

April and May are critical times to voice support for the nature-friendly ordinances (see website for details). *Each of our voices is "counted" by our representatives as justification for their yes or no vote.* Please reserve 20 minutes or more in April and May to grow a healthy, beautiful Little Rock. As a group of individuals joined by gardening, expressing caring for how Little Rock grows is within our reach — by telephone/voice mail, e-mail, letter, or speaking or listening to public hearings at City Hall or on Cable Channel 11.

City, continued on page 8

Internet Gardening Resource

By Claudia Barone

It's that time of year again — your azaleas are blooming, the tulips are peeking out from the soil, and the weeds are returning. Most of us can recognize dandelions and quackgrass — but what about all those other plants that grow where they're not wanted???

Have no fear! Weed assistance is right at your fingertips. The Weed Science Society of America (WSSA) maintains a "Weed Photo Album" that identifies hundreds of headache plants, and gardeners to list their favorites as well. If you have Internet access, log-on to <http://ext.agn.uiuc.edu/wssa/> for information in eight diverse areas.

First is society information. Here you can check out membership and its calendar, committees and conferences.

The next stop at WSSA publications and directions for contributing a problem plant to the website.

Third is herbicide information — chemical companies and terminology, labels, and governmental regulations. A great place to stop and obtain some good information about treatment.

Fourth stop — weed information. This section of the website includes noxious weeds (a lot of them!), plant names, and herbicide resistance. Nicely done, easy to understand, and great for beginners.

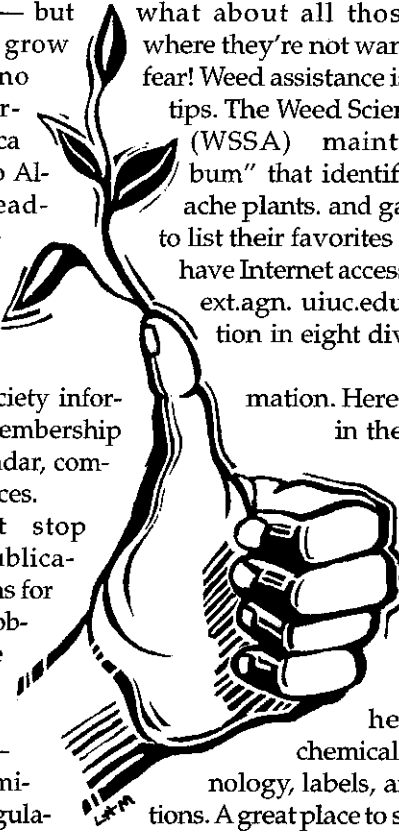
The photo herbarium is the mainstay of this website. Here you can look at the database of more than 200 common American herbs, plants, and weeds. You can search this part of the database by common name or through the scientific index. The common name is extremely helpful for cross reference.

Sixth is a look at WSSA member-suggested and -recommended websites. It is very helpful in narrowing down the field of horticulture.

Next stop — articles from the *Journal of Weed Science* and other sources. Interesting information, including a way to search for a particular topic.

Lastly, add your e-mail address or submit changes and new items of interest to be added to the WSSA website.

Overall, a very informative website with a lot of good information. Add your e-mail address to this website and be prepared for some great news, suggestions, and information. Happy surfing!



Hints And Tips From The Current Literature

Mesclun

In the September 1997 "Master Minutes", Julia Loyall described mesclun as a traditional Provencal salad mixture of young leaves of chervil, arugula, lettuce, and endive. American versions use these and other leafy vegetables. Seeds are blended to suit many tastes — some peppery, some mild. Mesclun packets mix the most amenable blend of flavors and textures, all with the same growing schedule so you can harvest them together.

Sow as early in the spring as the ground can be worked and after the danger of frost has passed. Sow seeds 1/4 inch deep. When they begin to grow, thin until the leaves just touch, about four to six inches apart. Use the thinnings in your salads. Later in the season, thin again. Sow a new patch every two to three weeks.

To harvest, use the technique market gardeners call "cut and come again": cut off the whole plant when it is three or four inches tall. Cut about 1/2 inch above the soil line, taking only as many plants as you need for one meal. In about a month the plants will have grown back for a second harvest.

Natural Home, January/February 2000

Pruning Wisteria

If the top of your plant has become seriously overgrown, it's best to prune it in winter, at the latest early spring, before new leaves cover the vines and obscure the stems and branches.

To create structure, a good model to follow is one main central trunk, topped with just a few fairly straight main branches spaced at least a foot apart. Remove any smaller branches that are twisting around the larger ones you've chosen to let grow.

Spring is also the time to dig out errant root sprouts. Don't just clip or mow them. You must dig them up, tracing the shoots sometimes several feet back to the underground root; then clip them at the source.

Once the top is under control, summer pruning keeps it that way. Summer pruning is also the best way to push the plant into flowering at a younger age. About two months after the wisteria leafs out (or if it is a mature flowering plant, after it has bloomed), cut each side shoot back to its sixth leaf, leaving a stub usually 10 to 12 inches long with six leaves. Later in the summer shorten these as well. Leave a stub with only four to six leaves beyond the first cut.

In late winter or early spring, trim the plant again. Shorten the side branches back to the cuts you made in your first summer pruning; they should be no more than 12 inches. These short side branches will have many fat flower buds if the plant is mature enough to start flowering.

Garden Design, April 2000

★ See Hints and Tips, continued on page 7

Trading Post

By Frances Young

Ruth Gibson, 835-0158, has Carolina jasmine.

Margaret Breen, 758-7883, has purple dragon flower and angel's trumpet seeds.

Mary Francis, 225-5384, has *Sedum* 'Autumn Joy' and wants *Helleborus*, lenten rose.

Marge Van Egmond, 224-7632, has young needlepoint holly and wants some "different" perennials. *

Master Gardener Alert!

Dues

2000 dues are due. First-year Master Gardeners do not pay dues this year, but the rest of us should pay current dues, \$10. Make your checks payable to "Pulaski County Master Gardeners" and mail it to Pulaski County Extension Office, 2901 W. Roosevelt Road, Little Rock, AR 72204. If you didn't pay your 1999 dues, you can make out a check for \$10 for that also.

Project Workdays

Jacksonville City Hall — the second Saturday of each month (the third Saturday is the rain date).

Old State House — no work in April but will work May 4 and May 11.

Park Hill Water Works — each Monday at 9 a.m.

County Extension Office Lawn — the first and third Monday, and the second and fourth Wednesday at 9 a.m. each month.

Pinnacle State Park — April 5 and April 19 at 9 a.m.

Travel Committee meets April 11 at 10:30 a.m. (before the Master Gardener meeting).

For more information on project workdays, call the County Extension Office, 340-6650. *



*A garden is never
so good as
it will be next year.
~ Thomas Cooper*

Dig In Here ...

Does a gardening/horticultural problem have you stumped? These resources can help you solve nearly any gardening dilemma:

Pulaski County Cooperative Extension Service Office
2901 West Roosevelt Road
Little Rock, Arkansas 72204
340-6650
bphelps@uaex.edu

Arkansas Cooperative Extension Service Office
2301 South University
Little Rock, Arkansas 72204
671-2000

Pul. Co. Horticultural Hotline
340-6660

University of Arkansas Cooperative Extension Service
Website: <http://www.uaex.edu>



City, continued from page 5

Telephone/Voice Mail

Planning Commissioners Board of Directors:
Pam Adcock 568-3398; Mayor Dailey 371-4510;

Ward 1: Craig Berry 663-1693; Johnnie Pugh 661-1663

Ward 2: Richard Downing 663-5330; Willie Hinton: 666-8993

Ward 3: Hugh Earnest 666-6994; Larry Lichty 664-8450

Ward 4: Judith Faust 376-6704; Brad Cazort 223-2850

Ward 5: Herb Hawn 374-4183; Michael Keck 224-7755

Ward 6: Bob Lowry 227-7443; Genevieve Stewart 568-5342

Ward 7: Rohn Muse 663-3368; B.J. Wyrick 455-4701

At large: Obray Nunmley 374-2379; Dean Kumpuris 666-0249; Bill Putnam 224-2062; Paul Kelly 227-8618; Mizan Rahman 375-1786; Joan Adcock 565-6098

Write: City Hall: 500 W Markham St., Little Rock AR 72201, Fax: 371-4498

City Planning: E-mail tbozynski@littlerock.state.ar.us 371-6830

Democrat-Gazette, Attn: Voices Fax: 372-4765

Attend: *Planning Commission Hearing:* Thursday, April 13, 4:30 pm at City Hall or on Cable Ch. 11.

Supporters of Task Force Ordinances Meeting: Every Tuesday, 7 p.m. at Second Presbyterian Church, Room 63, Pleasant Valley Drive & Cantrell

For Further Information: Websites: Task Force <arkie.net/treesandhills>; City of Little Rock littlerock.org

City Hall: 371-4510
Vivian Davis, Supporter & Master Gardener:
954-8526 *

Spread The News!

If you have an item of interest or a newsworthy photo, or need to tell the general membership something about your committee, this newsletter is your opportunity to reach all Pulaski County Master Gardeners.

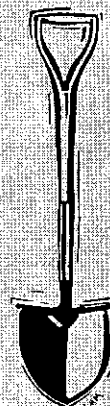
Please provide your information to us by the April MG meeting to see your message in the May issue of the newsletter.

You may bring your information to the meeting or send it via: Beth Phelps, Pulaski County Cooperative Extension Office, 2901 West Roosevelt Rd., Little Rock, AR 72204, 340-6650, bphelps@uaex.edu; Mrs. McKinney, 340-6650; Rose Hogan, 374-9429, rhogan@aristotle.net; or Cheryl Kennedy, 753-8192, fax 753-6305, and inthegarden@aristotle.net.

If you have late-breaking news unavailable by the meeting date, Beth may be able to add it to her letter that is mailed with the newsletter. *

Master Minutes Staff — 2000

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Co-Chair/Layout	Cheryl Kennedy
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	Lois Clifton
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	Gena Norris
	Laurie Pierce
	Ellen Rouch
	Phyllis Rye
	Libby Thalheimer
	Linda Westergard
	Laura Anne Wilson
	Lynne Woods
	Frances Young



Pulaski County Master Gardener Volunteers are trained volunteers working with the University of Arkansas Cooperative Extension Service and Pulaski County Government to provide demonstration gardens and horticulture-related information to the residents of the county. In 1999, these volunteers gave more than 7,000 hours of service.

Elisabeth J. Phelps
County Extension Agent — Agriculture

Project Highlights: A Monthly Article Featuring A Pulaski County Master Garden The Contemplation Garden

By Gena Norris

Tucked away on the side of a long sloping hill on the grounds of MacArthur Park, just south of the Arkansas Arts Center is the Contemplation Garden. This small garden with a wooden bench in front offers a wonderful place to ponder, renew, and reflect. The still pond, lined with large and small round stones, further encourages one to enjoy a quiet respite.

Stability is enhanced by the hollies, dwarf nandinas, loropetalum, and burning bush. Every space in the garden is utilized, and each planting seems to complement the next, encouraging your eyes to flow from one plant to another. Color and texture are provided by lamb's ear, salvia, coreopsis, rudbeckia, blanket flower, and lantana.

Large and small zinnias, ranging from orange to yellow to red and pink, will provide additional color for summer. Plans for this summer also include adding a butterfly bush, another clump of fountain grass, and liatris. The Contemplation Garden is an excellent example of space utilization, offering many varieties of plants proven to do well for the Arkansas gardener.

Since the garden is located in an open area, it may be visited at anytime. It's very picturesque — bring your camera! *



Geraniums, continued from page 1

frost. The plant needs at least 6-8 hours of sunlight a day and should be planted in well-drained soil (no heavy clay). It grows best in a soil with a pH of 6.5. (If the soil pH is less than 5.5 then don't expect much.) Fertilize with a balanced organic fertilizer every 4-6 weeks. Water at least once a week to prevent wilting but keep the leaves dry.

Aphids and white flies cause problems and can be controlled by using

insecticidal soaps or horticultural oils. Pinch leaves to promote bushiness, and remove old leaves to encourage continual blooming. Good sanitation and keeping leaves dry will prevent plant diseases like blight, leaf spot, and rust.

Inside Care

Scented-leaf geraniums make lovely houseplants and will do well if you follow these basic rules: Place plant near lots of light. Plant in a soil that is high in organic matter (equal parts loam, sand, and peat moss). Fertilize on a monthly basis during spring and summer then every other month in fall and winter. Ideal pot size is 10" wide by 10" deep, with a drainage hole. Keep the daytime temperature between 65-70° and around 55° at night. And provide humidity.

Propagation

Scented-leaf geraniums are propagated either through seeds or cuttings.

More Information

To get in-depth information about the care, propagation, and disease prevention for scented-leaf geraniums, access the following Internet sources. These sites will take you directly to papers written by horticultural specialists from the University of Nebraska and North Carolina State University: <http://www.ces.ncsu.edu/hil/hil-8504.html> and <http://www.inar.unl.edu/pubs/Horticulture/g190.html>.

Suppliers

You can order scented-leaf geraniums from Papa Geno's Herbs at www.garden.com. Papa Geno's is the single largest supplier of scented geraniums worldwide.

You can also order locally from Lisa Green, a Master Gardener from Saline County. Contact Lisa at 316-0681, 8:00 a.m.-5:00 p.m. *

**GARDENING IS AN ACT OF HOPE,
AN AFFIRMATION OF WHAT IS POSSIBLE.
READ A NEWSPAPER.
THEN READ A SEED CATALOG.
WHICH ONE MAKES YOU FEEL MORE HOPEFUL?
— JEFF TAYLOR
IN TOOLS OF THE EARTH: THE PRACTICE AND PLEASURE OF GARDENING (1998)**

Checklist, continued from page 3

be applied at 2-week intervals throughout the growing season. The best fungicides for *black spot control* are Benlate, Funginex or Daconil.

An early application of a *post-emergent herbicide* can help control dandelions, pennywort, and other unwanted warm-season weeds before they take over your lawn. Be sure to use chemicals specifically for your type of lawn.

April Blooms

Ajuga, golden alyssum, anemone, anise Florida, azaleas, red-leafed barberry, bellis, beauty bush, bleeding heart, red buckeye, calycanthus, candytuft, clematis, columbine, coral bells, daffodils, English daisies, day-lilies, deutzia, dianthus, dogwood, epimedium, foam flower, forget-me-nots, fringe tree, fritillaria, grass pinks, heather, iris, yellow jessamine, kerria, leopard's bane, lilacs, lily-of-the-valley, lungwort, maple, meadow rue, mertensia, mock orange, moneywort, muscari, oxalis, pansies, peonies, phlox, polemonium, primroses, ranunculus, rosemary, roses, sage, St. John's wort, scilla, campanula, Scotch broom, shooting star, snowflake, Solomon's seal, spirea, styrax japonica, tamarisk, thrift, trillium, tulips, viburnum carlesii, viburnum opulus sterile, viburnum tomentosum, vinca, violas, weigela, and sweet William. *

Hints and Tips, continued from page 6

Gardening Books

"One must be as willing to study as to dig, for a knowledge of plants is acquired as much from books as from experience." Elizabeth Lawrence wrote those words in the introduction to her 1942 book, *A Southern Garden*.

To Ethne Clarke, next to the proper tools, a gardener's best friend is her/his library. In this article she tells how she built hers and how it has affected her interest and knowledge of plants.

She feels that keeping a garden journal should be as routine as dead-heading. The article ends with four book sources: 1) Quest Rare Books — 650-324-3119; 2) The American Botanist, Booksellers — 309-274-5254; 3) Barbara Farnsworth, Bookseller — 860-672-6571; 4) Flora & Fauna Books — 206-623-4727.

House & Garden, April 2000 *

MASTER MINUTES

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*Arkansas Is
Our Campus*

Visit our web site at:
<http://www.uaex.edu>

Impatiens -- Everyone's Colorful Flower

By Claudia Barone

Background

Garden centers rate impatiens among the top annuals wanted by customers.

This plant was brought to England from equatorial Africa in 1896 but it wasn't until plant breeders in America began to cultivate and improve impatiens in the 1950s that this annual was introduced to gardeners by the Ball Seed Co.

Seeds grown in Costa Rica increased the availability and, in that climate, crossbreeding led to new varieties. Claude Hope, working with PanAmerican Seed, introduced the 'Elfin' impatiens in 1968.

It's not difficult to understand why impatiens have grown to become the most popular annual bedding plant in America. After all, don't all Americans love a workhorse that just continues to grow and bloom with very little care?

Impatiens are versatile. They look great in containers and will trail in hanging baskets, yet are ideal for garden beds, borders and big displays.

They are low maintenance. Unlike some bedding plants such as marigolds,

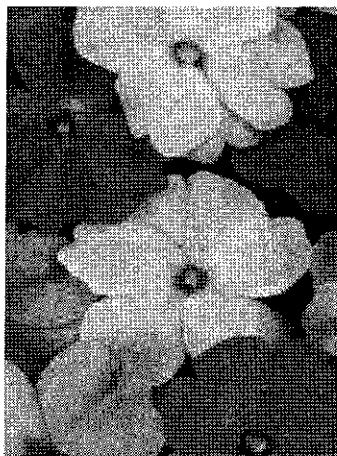
zinnias and geraniums, impatiens have the good manners to drop faded flowers. You don't have to deadhead the old flowers. There are always more flowers coming to replace the others. In fact, that's where they got their name, which is derived from the word "impatient."

When seed pods are ripe, the slightest touch will cause them to burst open and impatiently scatter their seeds to the wind.

Impatiens are shade-loving. Morning sun, afternoon shade or filtered in-between is perfect for these free-flowering bedding plants.

Varieties

The most widely available impatiens today are the single petaled 'Accent' and 'Super Elfin' series. Both offer more than 20 flower variations: most are a solid color. The flower color ranges are second to none. Colors vary from red to orange and scarlet to rose, carmine, salmon, pink, orchid, violet, white and lavender blue. There are bicolor patterns with white star shapes in the middle and blush types with just



See Impatiens, continued on page 7

Calendar And Notes

May

Master Gardener Greenhouse Sale May 6, 8 a.m.-noon.
Annual Hot Springs Iris Society Show, May 6, 1-5 p.m.,
 Westminster Presbyterian, 3819 Central Ave., Hot Springs.
Central Arkansas Iris Society Show, 1-5 p.m., May 7,
 University Mall, Little Rock.

The Quapaw Quarter Tour of Homes, Grand Victorians 2000, May 6, 11 a.m.-1 p.m., box lunch tour of five of Little Rock's most elegant Victorian gardens led by Janet Carson and Cecelia Buck. Cost \$20.

Mary Evans' Patio & Container Gardening course Saturday, May 6, 9-11 a.m. Cost \$20. Registration: 666-0759.

Missouri Botanical Garden's Merry Month of May, May 6-7: unveiling of updated, one-of-a-kind collection of "Wild

Whimsical Wonders" garden sculptures (on display outdoors through summer and fall). **Greenhouse tours and Bonsai Society of Greater St. Louis** show and sale. Info: (314) 577-9400.

Master Gardener Meeting, May 9, 11:30 a.m., state extension office. 340-6650.

The 12th Annual Heritage Herb Spring Extravaganza, Ozark Folk Center, May 12-13. Explore herbs

and culinary arts with nationally known specialists in herb growing and preparation, Madelene Hill and Gwen Barclay. For information, call (870) 269-3851.

Trinity Episcopal Cathedral, 310 W. 17th Street, hosts its **Annual Flower Show** May 12-14. Featured speaker P. Allen Smith. **Master Gardeners invited to man informational booth; call Beth or Mrs. McKinney if you can help.**

Azalea Daze, May 13, at Wildwood Park; hourly tours 9 a.m.-4 p.m. At 11 a.m., Jeb Leggett will discuss deciduous azaleas, for which Wildwood will be prominently known in the future.

Missouri Botanical Garden Mother's Daze, May 13 - 14: **miniature rose sale** by the Rose Society of Greater St. Louis; **exhibit** by the St. Louis Audubon Society; and the **Dahlia Society of Greater St. Louis sale**. Info: (314) 577-9400.

Attend the **Southeast Regional Master Gardener Meeting** in Athens, Ga., May 14 - 17. Call Beth at 340-6650 for more information.

Through May 14, **Missouri Botanical Garden's Annual GardenExpo**: tours of production greenhouses; gardening experts, garden walks, activities for children, entertainment, art, plant shows, sales, exhibits. Hands-on demos Sat. and Sun. 9 a.m.-5 p.m. Info: (314) 577-9400.

Pulaski County Master Gardener Spring Picnic May 18. Plant exchange, door prizes, and Corky's BBQ will cater. For details see the enclosed flyer from Beth.

John Beneke's Spring Landscape Tour Saturday May 20, 9 a.m.-noon. Cost \$29. Call 666-0759 to make reservations.

Ozark Folk Center Garden Glory Days: garden tours, demos, teas May 26-June 1. (870) 269-3851. *



Project Highlights

Featuring A Pulaski County Master Garden

The Pinnacle Mountain Project

By Gena Norris

I am amazed and proud of the work that the Master Gardeners have contributed to the projects I've had the opportunity to visit! Each project is a unique tribute to our group.

In April, I attended a work session at the Pinnacle Mountain Project. What an opportunity to get a ground's-eye look at the wonderful collection of native wildflowers being cultivated! This is quite a large project, extending from the Entrance Gate to the Visitor's Center and including all the grounds in between. There are five main planting areas: The Entrance Area, the Second Gate, the Meadow, two gardens at the front of the Visitor's Center and a Butterfly Garden at the side of the center.

The gardens and connecting grounds are tied together with a large variety of native wildflowers. The wild aster, phlox, and evening primrose are scattered beautifully along the entire route and in every planting area. Each garden contains additional plants specific to that garden's needs, giving each a special look.

The entrance is highlighted by miniature narcissus planted in attractive clumps around large granite rocks typical to the Pinnacle Mountain area. Several native dogwoods are also planted, along with naturally occurring rebuds and pine seedlings.

The Second Gate is home to a butterfly bush.

The Meadow is a boulevard area with adjacent parking, located below the Visitor's Center. It has its own special needs! It's a bog located in direct sunlight. On this day, the group was planting wild phlox along a stepping-stone path and transplanting oxeye daisies from the Meadow to two beds in front of the Visitor's Center. Yellow flag irises were in beautiful bloom, and Carl Hunter had brought additional plants which were placed next to a rock wall.

There are two large gardens on each side of the doors to the Visitor's Center. Each bed contains a large wax myrtle, forming a canopy over the front walk. The left garden has a fringe tree or grandfather's beard, which was very fuzzy the day I visited. Every space in the garden was planted. Both gardens continue the wildflower theme with purple coneflowers, Queen Anne's lace, wild aster and ox-eye daisies.

The Butterfly Garden can be found next to the east-side entrance of the Visitor's Center. The showpiece of this area is the large, blooming red honeysuckle bush.

Jeanne Lizar and the rest of the Pinnacle group have worked diligently to create the beautiful grounds that encourage protection of many native wildflowers and wildlife (birdhouses, signs of deer and other small wildlife are evident, along with an abundance of bees!) They have been able to modernize some by putting in their own watering/sprinkling system, while enhancing the natural beauty throughout the area. The gates to the area are open from 6:30 a.m. until an hour after dusk everyday. Take your favorite wildflower book and enjoy! *

May Checklist For Master Gardeners

By Libby Thalheimer

Cutbacks

Prune spring-flowering trees and shrubs after bloom. When you finish, no one should be able to tell the plant has been pruned.

Cut back to the ground some of the oldest canes on climbing roses immediately after blooming. Don't cut suckers that grow from beneath the graft on roses. Instead, push the trowel down beside the trunk so that the sucker is torn off. This will remove any dormant buds at the base of the shoot. Suckers that sprout from beneath the graft will not produce the same kind of flowers as the grafted shrub.

Kolkwitzia, quince, spirea, weigelia, and wintersweet need occasional shaping, but Japanese andromeda (peris), azaleas, loropetalum, and rhododendron seldom need shaping.

Divide dahlia tubers with a sharp knife. Be sure each sprout is attached to at least a piece of the tuber, as the sprouts make the new plant.

Pinch back asters, mums and phlox. Remove seed pods from bulbs and bearded iris.

Dig In

Set out sun-loving transplants: ageratum, sweet alyssum, wax begonia, chrysanthemum, celosia, dianthus, marigold, Madagascar periwinkle, petunia, verbena and zinnia. Or, for shade: browallia, coleus, dahlia (Unwin and Coltness hybrids), impatiens and lobelia. Plant caladiums, cannas and other summer bulbs or container-grown trees and shrubs. Root forsythia and hydrangea by bending branches to the ground and covering with a rock.

Fertile Ground

Begin fertilizing established blueberry plants this month with a formula for acid-loving plants, and continue through the growing season. Mulch to keep soil cooler, conserve moisture, contribute nutrients and to keep down weeds. Lawn clippings make good and readily available mulch. If you use manure, it must be thoroughly composted before using. The first application of lawn fertilizer should be made this month. Fertilize azaleas, spring bulbs and roses.

Sow What?

Begin planting green beans, lima beans, eggplant, cucumbers, melons, peppers, squash and tomatoes. Soak okra seeds overnight before planting on the north side of your vegetable garden (so the tall stalks won't shade the other plants). May is the best time to sow Bermuda grass seed.

Who's Bugging You?

Spray red-tip photinia with Daconil (two to three times for control). Continue to spray roses every 7 to 10 days with a fungicide to prevent blackspot. Spray fruit trees every 7 to 14 days from petal fall until harvest with a general purpose mix to combat brown rot, scab, codling moth, curculio and plant bugs. 2,4-D can be used as a post-emergent herbicide once the grass has turned green. Read the label of herbicides to be sure they are compatible with your grass!

If slugs are a problem in strawberry plants, use diatomaceous earth, commercial baits or a container of beer near the plants (the rim should be at ground level).

Watch for spider mites and lacebugs on your azaleas. Lacebug eggs hatch in May and produce tiny sap-sucking nymphs, which congregate on the underside of the leaf. As nymphs and adults feed, they leave a number of brownish specks caused by fecal deposits.

Leaves of affected plants have a grayish or brownish cast at first, followed by yellow mottling. Control with Dursban or

Orthene. Two or three

applications beginning around

the first of June

and repeated at 10-

day intervals may be

necessary. Try spraying

with dormant oil to suffocate

mites, lace bugs and their eggs without killing beneficial insects in the area. Carefully follow directions on the label (some dormant oil sprays have temperature restrictions).

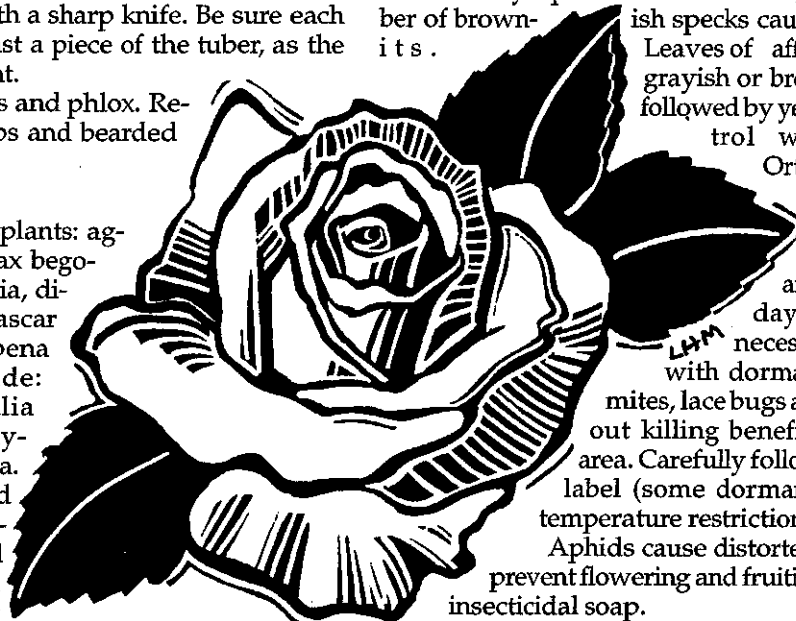
Aphids cause distorted new growth and prevent flowering and fruiting. Kill aphids with insecticidal soap.

Signs of thrips, especially on roses are discolored blotches on petals, failure of buds to open properly, and deformed blooms. If suspected, cut an affected flower, and pull it apart or shake over a white piece of paper. They move about quickly when disturbed.

To avoid trouble, make sure plants are well irrigated; those under water stress are more susceptible to infestation. Also, keep the garden clear of weedy patches and high grass in which thrips can breed. Remove infested flowers immediately and apply insecticidal soap, Orthene or OrtheneX. Spray three times, allowing 7 to 10 days to elapse between treatments.

Pesticide Caution

Make sure what you buy is safe and effective for the plant(s) you will be spraying. Mix at recommended rates. Damage can be done by using too strong a solution (including killing your plants). Too weak a solution may not solve the problem. Be sure to spray the stems and undersides of leaves, too. Wear protective clothing, i.e.,



What Works!

By Kathy Kohl

May is here, and we're full steam ahead to summer. Because of all the backbreaking work we've been doing these past months, we're now ready to watch our gardens grow, tend to never-ending maintenance and practice our rain dances for the upcoming "hot dry spell".

Tendin' The Garden

Linda Harkenreader passes on the following pearls by an unknown but very wise gardener: "The best fertilizer for any garden is the footsteps of the owner." This reminds us that a short daily walk in our garden areas — pinching, pulling and inspecting as we go — will help to spot insect and disease problems early on, keep the weeds at bay and make for fewer labor-intensive sessions when the thermometer clearly states that sane human beings should remain indoors.

Don't throw away old carpets and rugs. These make great weed blockers. Cover with wood chips, sawdust, straw, pebbles or whatever you fancy and you have an attractive pathway or other weedfree area lasting years. Flattened cardboard and thick layers of newspaper work nicely, too. If you haven't already done so, now is the time to place those stakes, and another clever recycling tip is to use those old bent and broken umbrella frames to stake bush-type peas, beans, etc.

Simplify the chore of pruning by first laying out two pieces of twine of equal length parallel on the ground a few feet apart. Place pruned branches perpendicular to the prepared twine and secure the two bands. Tie a third piece of twine perpendicular between the two bands, and you have a handle making it easier to transport these discards to the curb or compost pile.

A handy-dandy trick passed along by another garden magician to contain spreading root systems or to enable the co-mingling of plants requiring different soil pH or incompatible additives is to first plant in a double-bagged brown paper grocery sack.

Many of our plants benefit from an extra dose of potassium, and you can make a great organic tonic by blending one banana to a gallon of water and pouring the solution around the base of the plant.

Some of our spring-blooming herbs are ready for harvesting, and there are ample flowers ready to be cut and dried. Attach chicken wire to the wall of your shed or other suitable drying area and secure bunches of herbs and flowers to the wire with clothes pins.

Critters Everywhere

Our lovingly prepared and tended garden spots look like giant litter boxes to our feline earth-mates. Janet Carson recommends using small sticks like spikes as a deterrent. I took this a step further and purchased hundreds of inexpensive bamboo skewers and placed them pointed end up. It works! The beds resemble porcupines, but this certainly beats the rather disgusting alternative and should camouflage nicely as things spread.

The melodious sounds of thousands of crickets singing through the night can set the ambiance for a delightful camping trip but can get on your last nerve when occurring under the house. Julia Dame solved her cricket problem by throwing horse apples under her house.

Linda Holbert sent in a *Birds and Blooms* article featuring a gardener's clever invention dubbed the "slug-o-matic". To make, cut the top one-third off of an empty 2-liter plastic soda bottle, drop in a spoonful of slug bait, push the inverted top inside the bottle body and secure with a few staples. The slugs crawl in; they don't crawl out.

And gardener Hilda saved her 2000 pansy crop from the deer with the following homemade repellent: 3 raw eggs and a dash of dish soap blended with water to the fill line of the blender pitcher. Use as a spray.

By The Light Of The Moon

The Lunar Gardening Guide suggests the following May gardening dates for improved results:

Plant above ground crops: May 3-17

Plant below ground crops: May 1-2, 18-31

Plant flowers and transplants: May 3-4, 8

Prune: May 5, 9, 22

Same time Next Month

Adios until next month from the "What Works!" crew. Keep those great ideas and words of wisdom coming this way by U.S. mail, e-mail, carrier pigeons or, if you can pull it off telepathically, that's OK too: kkohl2@juno.com, or drop me a note at P.O. Box 250524, Little Rock, AR 72225, or give me a call at 376-4552. *

To create a garden is to search for a better world. In our effort to improve on nature, we are guided by a vision of paradise. Whether the result is a horticultural masterpiece or only a modest vegetable patch, it is based on the expectation of a glorious future. This hope for the future is at the heart of all gardening.

~ Marina Schinz

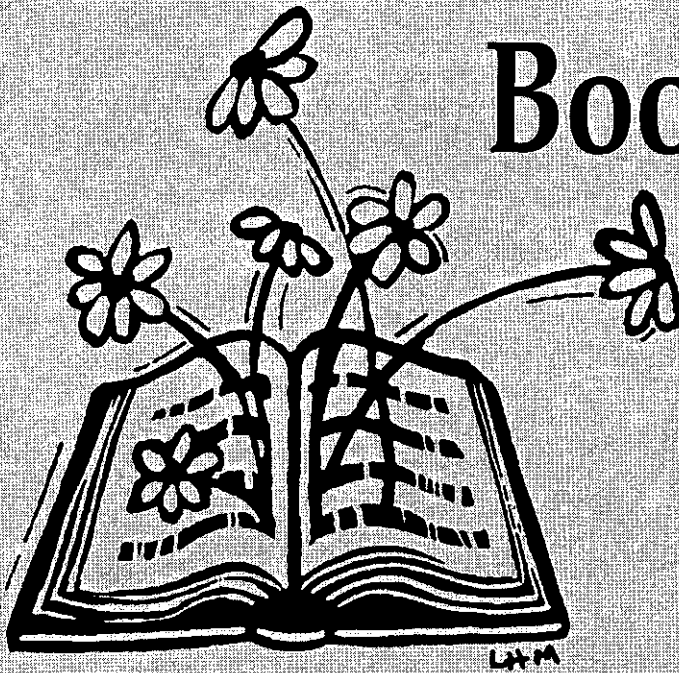
Book Review

By Phyllis Rye

Square Foot Gardening

By Mel Bartholomew

Rodale Press, 1981



In his book *Square Foot Gardening*, Mel Bartholomew explains a new system for gardening (which some of you may have tried) that is simple, easy and can be weed-free all year and produce a continuous harvest. The author carefully explains and illustrates how square foot gardening will save you 80 percent of the space, time and money normally needed to garden — and produce a better harvest.

Mel's past experience overseeing a community garden in his neighborhood, his engineering experience, and his retirement inspired him to devise an easy, no-work, fool-proof continual harvest garden that beginners and experts alike can do. The square foot garden is built in a series of squares. Each square is 12 x 12 inches (one square foot). Each square holds a different vegetable, flower or herb. And the only tools you need are a trowel, a spade and a sturdy water bucket, according to the author.

I must share a couple of common mistakes of the average gardener that the author discusses. My husband and I have done all the wrong things Mel talks about, but we've tried to improve our gardening skills.

For instance, the average gardener starts each year with great energy and ambition for a bountiful harvest. But other warm weather activities distract their gardening efforts and thus the garden becomes neglected and overrun with weeds and pests. In his community garden, 100 gardeners started and all but about 20 dropped by the wayside. He states that by the time Labor Day was over and school started, everyone became involved in PTA, football games on TV, raking leaves, etc. Then one rainy September Saturday at their regular morning clinic, seven people showed up. In the spring 150 had attended.

Another story the author tells is that most of the community gardeners planted half a package of radish seeds in a 10-foot row, before he could stop them — that's more

than 200 radish plants. Certainly, a humorous story but wasteful and unnecessary.

After several discouraging gardening experiences in his community garden, Mel asked himself, "If gardening has such appeal that so many people in my neighborhood wanted to try it — why did less than 5 percent last through the season?"

He also began to question our gardening methods. For instance, "Why do we plant an entire packet of seeds and go back and thin them?"

"Why do we leave two to three feet between rows?"

"Why do we allow vine crops to spread and occupy so much garden space that requires fertilizing, cultivating, weeding and watering?"

He came to this conclusion: "That's the way we've always done it." Mel states that most of our present home gardening practices have their origins in commercial agricultural practices. In America, we've been taught that bigger is better. It's difficult to persuade people to do something that goes against what they've been taught earlier in life.

He presents sample garden plans for small, large and vertical plants and illustrates a one-person, two-person, and four-person square foot garden. Some of the chapters explain what and when to plant, starting plants from seed, transplanting and special gardens such as a patio garden, rooftop garden, wheelchair garden, waist-high garden, winter garden and a herb garden.

This 340-page paperback contains a guide for growing crops and a question and answer section. It is an excellent resource book.

If you're using the traditional single-row method, perhaps next year you can garden the square foot way and reap a good harvest without the usual backbreaking, labor-intensive effort.

Internet Gardening Resource

By Debra Atencio

Background

Burpee is well known for its seeds and plants. The company is 124 years old and still going strong. Burpee introduced the 'Big Boy' tomato, as well as the first hybrid marigold (just to mention a couple). Now you can purchase their seeds and plants online by accessing their web site at www.burpee.com.

The Home Page

The home page is subdivided into three sections. The left side displays the search engine that allows you to access products and articles quickly rather than searching through submenus. The top middle of the page displays the main menu in this order: Vegetables, Flowers, Herbs, Accessories and Resources. There are also a Question and Answer icon and Tip of the Day special etables t h e icons. The center of the page displays these highlights: New Flowers and Vegetables for 2000, New Catalogues, and Rainbow Nutrition Guide. Other monthly highlights appear on the right side of the page.

At the home page, sign up to receive the 2000 Catalogue and Heirloom Catalogue (a collector's edition) free of charge. Next, view the Nutritional Guide by clicking on the Rainbow Garden icon. By clicking on a specific color of the rainbow, the site displays vegetables and fruits of that color. Each is listed alphabetically with a description of its nutritional value and a gardening tip for successfully growing the plant. Finally, view the new flowers and vegetables for 2000. Each new plant is displayed in a colorful photograph with a short description and its price.

The Vegetables, Flowers, And Herbs Menus

By clicking on the Flowers menu, a submenu for Perennials, Annuals, and Bulbs appears, along with a list of Favorite Flowers and photographs of Selected Flowers. To bypass searching each submenu, click on Quick Find. For example, to get a list of all shade-loving plants, click on Quick Find then click "All", "Shade", and "Go". This search will provide a list of all shade plants sold by Burpee. Each will be displayed with a color photo, description and price list for the seeds and plants. A shopping cart is available so you can place your order immediately when viewing the plant. (The Vegetables and Herbs menus follow a similar progression to Flowers.)

The Resources Menu

By selecting the Resources menu, you will see these submenus: Regional Gardening News, Q&A, 3D Tour of Test Garden, Outstanding Gardeners, Gourmet Recipes, and Nutrition.

The Q&A menu is especially helpful since experts from the National Gardening Association and Burpee provide the answers. You can submit a question directly or search through their library of more than 23,000 pre-answered questions. (Their library contains more than just answers

to Burpee's products. I searched on the keyword "Dogwoods" and received several information responses concerning dogwoods.)

Be sure to view the Gourmet Recipes menu, which lists several vegetables and herb recipes. Also view the 3D movie of their Test Garden. (I found it to be beautiful, and I got some good ideas for incorporating certain color schemes and plants in my own garden.)

Customer Service

For Customer Service, call Burpee at this toll-free number. 1-800-333-5808, Monday through Friday, 9 a.m. - 6 p.m. ET and Saturday 9 a.m. - 5 p.m. ET.

Overall Highlights And Rating

Overall, Burpee.com is a very useful site. It is logically organized so it is easy to find information and products quickly. Every plant is displayed in a colorful photograph, and the prices for the seeds and plants are reasonable. The Q&A resource is easy to search, and the answers are very informative. The Rainbow Nutrition Guide is a good resource for learning the nutritional value of each vegetable and fruit sold by Burpee. And the Gourmet Recipes section is a nice feature, providing new ideas for preparing those homegrown vegetables and herbs. Overall, Burpee.com gets a Green Thumbs Up!

Perennial Herbs

By Carl Goodson

Wouldn't it be nice to have aromatic cooking herbs readily available, fresh from the garden, year round? It is possible with many of the perennial herbs. Most of them can be harvested and dried at the peak of the season, but many of them can be left in the garden till moments before they go into the pot.

Some herbs are used in medical applications and some are used to provide a pleasant smell to the atmosphere. Medicinal herbs are widely available, but they are not regulated as to their potency or poisonous qualities. Harvesting from fresh sources can be a dangerous practice. We are mainly talking about cooking herbs in this article.

"Perennial herbs" have the quality of growing in the place where planted and thriving as long as growing conditions are favorable. Consequently, they can't be planted in the traditional vegetable garden which is annually turned under. So, they may have a space of their own, they may share space in the perennial flower garden, they may be grown in containers, or all three.

The gardener does not have to plant them all at once. The collection can be begun with one or two varieties, and added to when other varieties become available. The plants can usually be started from seed or purchased from a retailer or grower. There are several reliable propagating nurseries in Arkansas.

Usually available are plants of chives, fennel, garlic, horehound, horseradish, lemon balm, mint, oregano, rosemary, saffron, sage, shallots, tarragon and thyme. Most herb gardeners like to increase their collection by trading. The larger the collection, the greater variety of flavors that are available for cooking.

To prepare the site (as small as one foot square for one variety in the perennial flower garden), incorporate

See Herbs, continued on page 7

a hint of white. 'Mosaic' offers a soft mosaic-like pattern within the dominant flower color. The double-flowered 'Confection' series, which look like small roses, has become popular. The showiest are the 'New Guinea', with their 2 1/2-inch flowers and long variegated green and yellow leaves. But they are not very hardy. The new 'Seashell' series comes in yellow with an orchidlike flower.

How To Grow

Most impatiens can be grown from seed or purchased for transplanting. Do not plant outside until after the last frost. Plant dwarf varieties a foot apart. Space regular size plants 18 inches apart so they can develop properly and display their flowers, which have a tendency to be below their leaves. They should be pinched back for fullness; otherwise they can look like stalks of celery if left too long before pinching.

Water And Shade

Water and shade are the most important ingredients to successfully raising impatiens. Consistent moisture is the trick to premium flowers. Never let impatiens dry out. Do not rely 100% on your sprinkler system for impatiens. Look at your flowers every day and notice if there are any "missed" spots in your flowers. Hand watering with your hose assures complete coverage.

Never overwater, as too much wetness will rot your roots or cause black fungus. Both conditions are deadly to your flowers. If we get a period of daily ongoing rains, manually shut off your sprinkler system to cut back on unnecessary water. Impatiens in the shade require much less water than south or west sun exposures. This is another reason to not rely on your sprinkler system for water. If you have impatiens in the shade and some in the sun, use less water in shady locations. Expect to water often if the impatiens are in the sun and on the south/west sides, depending on how hot, windy and sunny the conditions are. Water moderately as often as every day to keep soil consistently moist.

Impatiens In Pots

Impatiens in pots can be difficult. In just one day, pots can become dried out or overly wet. Fungus can start more easily in pots, as well. Smaller pots are much more difficult to water properly than larger, well-drained containers. The rule here is "the bigger the better" when planting in pots.

Stick your index finger into your flower pots' soil down to the second knuckle to test for moisture. You'll be feeling the soil 1 3/4 to 2 inches down. If it's moist at that depth, water is not needed that day. Check pots every two days.

Soil

Use good soil for impatiens in pots. What is sold as "potting soil" at about \$1.50 per bag is a very dense heavy, wet mixture, basically composed of muck and sand. Never buy this mix. Look for bags of professional mix which cost from \$4 - \$6 per bag for small bags and up to

\$12 per bag for larger quantities. This mix is dry, light, disease-free and an excellent medium for your plants.

Mulch

Do not mulch your impatiens. They grow quickly and fill in open spaces between plants. This fast growth (with fertilizer) naturally shades the soil and keeps down weeds. More importantly, mulch can contribute to fungus by holding moisture at the base of flower stems. Just one or two days of excess wetness at the stem/soil level can kill all your beautiful flowers.

The exception to the "no mulch" rule is full sun. In full sun you can safely mulch (a thin layer, about 1/4 to 3/8 inch thick) but keep the mulch away from the stems of the flowers.

Fertilizer

Impatiens benefit greatly from food. You must feed your flowers fertilizer to get the lush, full look you want. The better the fertilizer, the better your flowers. If the foliage turns pale, fertilize. Plants in containers should be fertilized at least once a month with half-strength fish emulsion.

Has Impatiens' Popularity Peaked?

The National Garden Bureau notes that impatiens surpassed petunias as the biggest-selling bedding plant around 10 years ago. Today, impatiens are responsible for more than \$250 million in sales in the United States alone. There's no end in sight!



Checklist, continued from page 3

long sleeves, rubber gloves, boots, eye gear and an approved mask.

May Bloomers

Abelia, achillea rosea, allium, alstroemeria, anchusa, asclepias, azalea, baptisia, Canterbury bells, chives, clematis, columbine, coreopsis, cornflowers, late daffodils, early daisies, deutzia, dianthus, blue fescue, foxglove, gaura, heather, hemerocallis, French hollyhock, honeysuckle, hydrangea, iris, kerria, laburnum, lamium, lilies, lunaria, nicotiana, nierembergia, oregano, oxalis, pansies, peonies, philadelphus, phlox, pinks, poppies, English primrose, roses, rosemary, salvias, sarracenia, sedum acre, Japanese snowball, Solomon's seal, spirea, strawberries, sweet William, thyme, tradescantia, veronica and viola.



Herbs, continued from page 6

additives recommended by the soil test. Dig in compost. Do not select a site that is always soggy, but one that drains well. A raised bed can usually solve drainage problems.

After planting, provide additional moisture if rainfall does not add up to about an inch a week year around. Keep weed free. Keep invasive plants such as mint and thyme within bounds with edging, or grow plants that have this problem in containers. Add plant food monthly, according to specifications on the package, during the growing season and withhold during dormancy.

See Herbs, continued on page 8

Trading Post

By Frances Young

The first three listings are needed for the State Hospital Project, which is being redone after a new sprinkler installation.

Cheryl Johnson, 225-7517, wants pink pentas.

Cathy Shaneyfelt, 821-3623, wants purple coneflower.

Marian Berry, 663-1693, wants pink or purple butterfly bushes and liatris.

Aleta Newell, 666-0991, has money tree plants.

Marilyn Wheeler, 835-9649, has mondo grass.

Ruth Jones, 664-8977, has woodland poppies and woodland sunflowers.

Thalia Etter, 791-0937, has violas.

Pat Wallace, 753-8781, has columbine seeds.

Ruth Gibson, 835-0158, has lilacs.

Suzanne O'Donoghue, 661-9658, has pale yellow bearded iris, Vinca minor, and liatris.

Joan Humphries, 280-9023, wants tropical hibiscus.

Marge Van Egmond, 224-7632, wants some daylilies. *

Master Gardener Alert

Greenhouse Sale

Saturday, May 6, 8 a.m.-noon, there will be a Master Gardener Greenhouse Sale.

The potting soil is \$9 per bag. There will be annuals and perennials. Although not all the selection is still available, to get an idea what your garden can look like with plants from the greenhouse, go by the Pulaski County office and see how beautiful that garden project is now.

Discount Available

Thanks to the following nurseries for offering a discount to Master Gardeners volunteers.

Wear your name tag!

Arkansas Gardener Center
Burnett's
Horticare
Lakewood Gardens
The Good Earth

Continued, next column

Dig In Here ...

Does a gardening/horticultural problem have you stumped? These resources can help you solve nearly any gardening dilemma:

Pulaski County Cooperative Extension Service Office
2901 West Roosevelt Road
Little Rock, Arkansas 72204
340-6650
bphelps@uaex.edu

Arkansas Cooperative Extension Service Office
2301 South University
Little Rock, Arkansas 72204
671-2000

Pul. Co. Horticultural Hotline
340-6660

University of Arkansas Cooperative Extension Service Website: <http://www.uaex.edu>



Alert, continued from left column

Project Workdays

Cammack will hold a work day May 4, beginning at 8:30 a.m.

The *Old State House* will work May 4, beginning at 8:30 a.m. Rain date May 8. The second planting will be May 25, beginning at 8:30 a.m.

Jacksonville City Hall will work May 13, beginning at 9 a.m.

Dues

Dues are still due.

Make your check payable to "Pulaski County Master Gardeners" for \$10 and mail to: Pulaski County Extension Office, 2901 W. Roosevelt Road, Little Rock, AR 72204. *



Herbs, continued from page 7

When the plants are established they are available for use. Make fresh cuts of the leaves just before the ingredient is needed in the dish being prepared.

Fennel seeds are available in late summer. Roots of fennel, garlic and shallots may be dug almost any time of the year, depending on size. Many of the leaves and stems may be dried thoroughly and stored in a dark container until needed.

So plant and enjoy. *

Spread The News!

If you have an item of interest or a newsworthy photo, or need to tell the general membership something about your committee, this newsletter is your opportunity to reach all Pulaski County Master Gardeners.

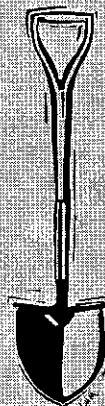
Please provide your information to us by the May MG meeting to see your message in the June issue of the newsletter.

You may bring your information to the meeting or send it via: Beth Phelps, Pulaski County Cooperative Extension Office, 2901 West Roosevelt Rd., Little Rock, AR 72204, 340-6650, bphelps@uaex.edu; Mrs. McKinney, 340-6650; Rose Hogan, 374-9429, rhogan@aristotle.net; or Cheryl Kennedy, 753-8192, fax 753-6305, and inthegarden@aristotle.net.

If you have late-breaking news unavailable by the meeting date, Beth may be able to add it to her letter that is mailed with the newsletter. *

Master Minutes Staff — 2000

Chair/Editor	Rose Hogan
Co-Chair/Layout	Cheryl Kennedy
Art Staff	Lisa Hanson Mantle
	Debra Atencio
	Claudia Barone
	Lois Clifton
	Carl Goodson
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	Kathy Kohl
	Julia Loyall
	Gena Norris
	Laurie Pierce
	Ellen Rouch
	Phyllis Rye
	Libby Thalheimer
	Linda Westergard
	Laura Anne Wilson
	Lynne Woods
	Frances Young



Pulaski County Master Gardener Volunteers are trained volunteers working with the University of Arkansas Cooperative Extension Service and Pulaski County Government to provide demonstration gardens and horticulture-related information to the residents of the county. In 1999, these volunteers gave more than 7,000 hours of service.

Elsabeth J. Phelps
County Extension Agent — Agriculture

Parsley, Sage, Rosemary & Thyme

By Carl Goodson

In This Issue ...

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There is such a wealth of attractive plants available for a herb garden that a beginning gardener might be bewildered. However, a new herbalist can begin with the four herbs of the popular song, "Parsley, Sage, Rosemary, and Thyme", and be amply rewarded year round. The four mentioned are easy to grow, do not take up much room in the garden, and are there for the using all year long. Parsley is a biennial, which means that it has to be planted every year. But the other three are perennial, growing every year as long as they like their environment, and they are not very fussy about that. All four of them are evergreen through the winter and can be harvested even then.

A small patch in the garden, in sun or in partial shade, as small as four square feet (two feet by two feet, or one foot by four feet) can do it. One square for each of the basic herbs would be enough to get started. Or tuck them into available one-foot spots in your perennial border. They have such varied leaf shape, texture and color that they look good wherever they are grown.

Spade in compost or peat to the depth of your digger, while removing rocks and adding whatever is needed to make the soil easily worked. A soil test by the Cooperative Extension Office would be ideal but is only necessary if there is an extreme amount of clay, sand, acidity, or alkalinity.

Plants are readily available at most nurseries in the spring. There are several

growing nurseries specializing in herbs in Arkansas. Plants reward you with ease of getting started and instantaneous results. However, these four also can be grown from seed with time and patience.

The seeds of most herbs take a little longer to germinate than the usual vegetable garden seed. So it would be well to start them indoors on the kitchen window sill to meet their need for water, warmth and light. To avoid overwatering, saturate the soil when the seeds are in their pots and enclose them in a sealed plastic bag, making a greenhouse for them. No more watering will be needed until the plants outgrow their headroom. Then, remove them from the plastic, pinch out all but two or three plants, and let them grow until they are about 2 to 5 inches tall. When that happens, gradually expose the plants to their outdoor temperature and sun until they are "hardened off", that is, growing with no sign of being burned by the sun or wind. Plant them into the prepared bed, and again pinch out all but one strong plant of each variety. You may want to plant all of the parsley plants with a 6-inch space between.

When the four herbs are growing in your miniature herbarium, you need only to let them grow as weed free as possible until there are enough leaves to begin using them. You will not want to strip your plants, but whatever you harvest will soon be replaced by new growth during the growing season. And the fresh

See Herbs, continued on page 7



*Arkansas Is
Our Campus*

Visit our web site at:
<http://www.uaex.edu>

Garden Calendar And Notes

June

Ozark Folk Center Victorian High Tea June 1, Mountain View. Registration required, (870) 269-3851.

Memphis Botanic Garden's 6th Annual Perennial Plant Symposium, June 3, 9 a.m.-5:30 p.m. For more information, call (901) 685-1566.

Organic Container Gardening Workshop, June 9 at the Ozark Folk Center, registration fee \$40. Reservations required, (870) 269-3851.

The Hot Springs Daylily Society will be hosting *Region 13 and the State Daylily Tour* June 8-13. Five gardens will be open to the public for viewing on Thursday, June 8, from 8 a.m.-noon. Register at the Clarion Hotel on Highway 7 South. A map will be furnished at that time. For more information, call (501) 321-1052.

The *American Hemerocallis Society Regional Meeting* will be held in Hot Springs June 9-10. For more information, call (501) 262-2711.

The Wildwood Gardens will be open June 10 for "Wildflower Daze" hourly guided tours 9 a.m.-4 p.m. At 11 a.m., Carl Hunter will discuss wildflowers.

The *Hosta Society* will tour the gardens of Tom Dillard, Tom Flannary, Rand Retzliff and Hilda and Jim Boger June 10. For more information, call Joe Dickens, 315-6493.

Mt Magazine State Park *4th Annual International Butterfly Festival*, June 10 - 11. For more information, call 1-800-980-8660 or visit www.butterflyfestival.com.

Master Gardener Meeting, June 13, 11:30 a.m., state

extension office. 340-6650.

Pulaski County Master Gardeners will take a *tour of the wildflowers* at Grandview Prairie on June 15. For details, see enclosed flyer or call 340-6650.

Memphis Botanic Garden Japanese Garden Candlelight Tour, June 15, 8 - 9 p.m. Call (901) 685-1566 for info.

Organic Gardening Workshops June 16 and July 28 at the Ozark Folk Center. For reservations, call (870) 269-3851.

Central Arkansas Iris Society meeting 2 p.m. at the Little Rock Garden Center on June 18.

Arkansas Orchid Society meeting June 18 at 1:30 p.m. at Christ Episcopal Church.

Ozark Folk Center will present a *plant propagation workshop* on June 23 and again on July 14 at a cost of \$40. Reservations required, (870) 269-3851.

Iris Rhizome Sale, sponsored by the Memphis Area Iris Society at the Memphis Botanic Garden, June 24, 8 a.m. - 3 p.m.

July

July 14 the Ozark Folk Center will again present the *plant propagation workshop*. For registration see the above information.

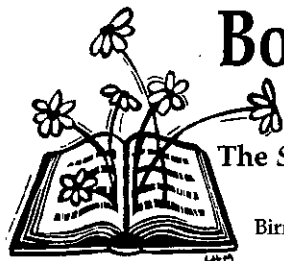
Family Ozark Herbal Odyssey will be presented by nationally acclaimed herbalist, chef and garden expert Susan Belsinger, her daughters, and the Ozark Folk Center's garden staff, July 17 - 21, studying herbs, exploring the Ozark woods, planning and holding gourmet cookouts. For information call (870) 269-3851.

Repeat on July 28 of the *Organic Gardening Workshop* (which was presented June 16) at the Ozark Folk Center. For reservations call (870) 269-3851. ✪



Book Review

By Gena Norris



The Southern Living Garden Book

Edited by Steve Bender
Birmingham; Oxmoor House, Inc.; 1998

Southern Gardeners: "We learn gardening, not at the library table, but at our parents' and grandparents' knees. We listen to their colorful names for things, like heart's-a-bustin', Moses-in-the-cradle, Gracy greybeard and cry-baby tree. We feel more comfortable with common, vernacular names than scientific, botanical ones. As we chat across the garden fence, we also share plants. The hallowed tradition of swapping is rooted in our agrarian past, when farm wives would trade plants at church meetings and social gatherings. Many of us find our biggest botanical treasures in the gardens of family and friends. Indeed, to a gardener, all other gardeners are family and

worthy of a leafy inheritance. So we pass along seeds, bulbs and divisions, always with a piece of gardening advice."

The *Southern Living Garden Book* is more than just an encyclopedia of plants. It's an insight into gardening from a Southerner's point-of-view — we're faced with hard soil and ravenous insects, plus weather that plagues us with drought, pelts us with hailstorms, and sticks us with ice and enough humidity to grow mold on talcum powder! You would think we'd just give up!

But this book will keep you from throwing in the trowel. Filled with over 5,000 plants along with realistic climate zones and tips from planting to watering to insect identification, this is one book you won't want to garden without. You'll find listings for common names, as well as the botanical names with tips included on everything from making an "Herbal Bouquet" to "Worm Raising". Beautiful color pictures of several Southern gardens (along with their addresses) are also featured.

This book is a "must have" for anyone interested in gardening in the South! ✪

June Checklist For Master Gardeners

By Libby Thalheimer

Amendments

Fertilize annuals monthly. Add lime to the soil around tomatoes about once a month. Peonies and roses need to be fertilized regularly. Lawns can be fertilized with a high nitrogen fertilizer now. Fertilize camellias early in June.

Cutbacks

Deadhead leggy annuals, and fertilize with a teaspoon of 5-10-10 under each plant. Shear golden alyssum and hardy candytuft after bloom to keep compact and remove seedpods. Pinch back annual herbs. Thin basil. Remove all grass and weeds, and thin strawberry plants out to 6 inches apart in rows not more than 18 inches wide. Iris should be left alone for 6 weeks after blooming, then lifted and divided. Cut iris foliage back to 3 inches. Lift and replant *Lycoris squamigera* and *L. radiata* as foliage turns yellow. *Lycoris* tends to get too deep as it multiplies and then will stop blooming. Wait until the foliage of spring-flowering bulbs turns yellow before cleaning up the bulb bed. Continue to pinch back your chrysanthemums and asters repeatedly until mid-July. Cut roses just over a five-leaf cluster to ensure more growth. Do not let roses die on the vine.

Dig In

You can still plant cannas, daylilies, and gladioli.

Just Add Water

If it doesn't rain, don't forget to water! Lawns, ornamentals, fruits and vegetables need one to 1-1/2 inches of water per week. Use soaker hoses where possible to conserve water and drops off foliage. Don't water in heat of day. Deep watering is best early in the morning. Mulch thickly to retain moisture during the hot summer months.

Sow What

Quick-growing annuals such as balsam, marigolds, nasturtium, nicotiana, portulaca, and zinnia can be planted for a second crop.

Who's Bugging You?

Blossom-end rot on tomatoes is not a disease: it's a calcium deficiency. A product called "Stop Rot" may be sprayed on affected plants. Mulch tomato plants to keep the moisture level constant and to protect the plants from soil-borne diseases. If you are growing corn, dust with Sevin or use mineral oil on the silks as soon as they

appear, and continue until the silks turn brown to prevent the corn earworm. Watch for chinch bugs and lawn fungi in your lawn.

Apply a 3-inch layer of mulch around shrubs and in the vegetable garden to keep-down weeds. Aphids and lacebugs are attacking everything from azaleas to tomatoes. Use insecticidal soap or Malathion. Be sure to read the label! Get good coverage on the underside of the leaves and hose off any plant that may be damaged by the insecticide with wa-

ter
tion.
the
and

about two hours after applica-
Placing aluminum foil around
base of the tomatoes, peppers
eggplants will not only reflect

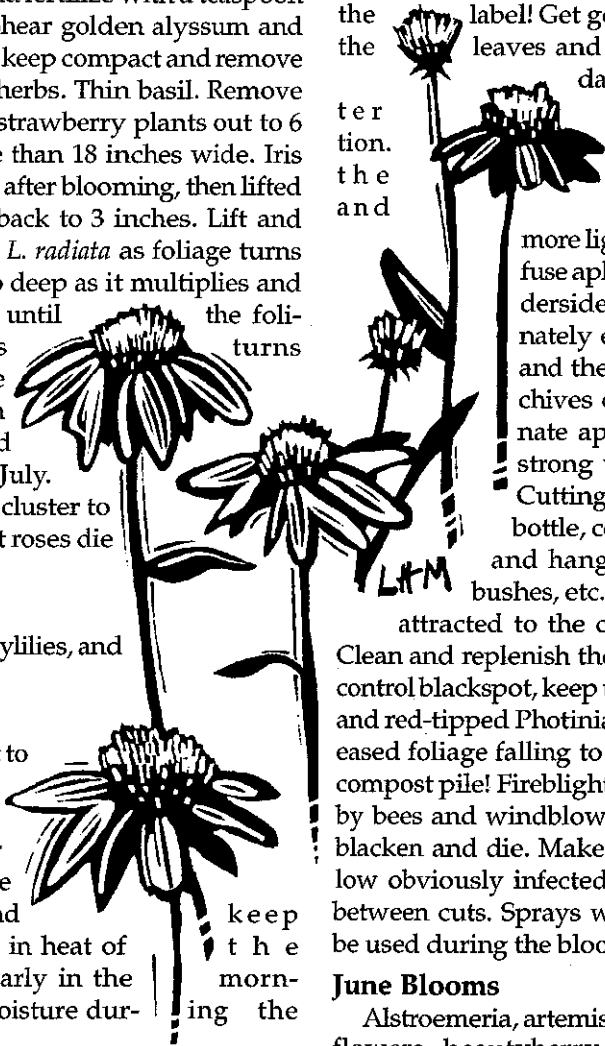
more light on the plants, but will also confuse aphids which seek out the darker underside of the leaf. (Flea beetles unfortunately enjoy bright, dry and hot places, and the foil will encourage them). Plant chives or garlic between roses to eliminate aphids. Use insecticidal soap or a strong water spray to control whitefly.

Cutting strips of a bright yellow plastic bottle, coating them with petroleum jelly, and hanging them around the gardenia bushes, etc., can make a trap. The whitefly is attracted to the color yellow and will get stuck.

Clean and replenish the petroleum jelly periodically. To control blackspot, keep up the spraying schedule on roses and red-tipped Photinias. Clean up and destroy and diseased foliage falling to the ground. Do not put it in the compost pile! Fireblight of fruit trees is a bacteria spread by bees and windblown rain, causing affected parts to blacken and die. Make pruning cuts several inches below obviously infected parts and sterilize instruments between cuts. Sprays which include Streptomycin may be used during the bloom period to reduce damage.

June Blooms

Alstroemeria, artemisia, asters, astilbe, azaleas, balloon flowers, beautyberry, blackberries, blackberry lily, buddleia, butterfly-weed, camellia, campsis, cannas, columbine, coreopsis, cornflowers, crinum, oxeley daisies, shasta daisies, daylilies, delphinium, dianthus, elderberry, blue fescue, feverfew, foxglove, gardenias, gaura, gladioli, ribbon grass, hollyhocks, hostas, hydrangeas, hyssop, Japanese iris, vesper iris, lantana, ligularia, lilies, lychnis, magnolia, mimosa, mint, monarda, nandina, nicotiana, oregano, oxalis, petunia, phlox, English primrose, evening primrose, golden raintree, roses, rudbeckia, St. John's wort, salvia, sarracenia, scabiosa, sourwood, spirea, stachys, strawberries, sweet peas, sweet william, thyme, verbena, veronica, viola, vitex, yarrow, and yucca. *



What Works!

By Kathy Kohl

We are racing headlong into the dog days of summer. All those water-slurping beauties seemed like such a good idea during the springtime planting frenzy when the temps were mild and it actually rained. Now the water utility company execs are dancing a jig and banking the profits. What to do, what to do?

Don't Drought It

Don't throw away those 5-lb. coffee cans and institutional-size vegetable cans, and ask your family and friends save them for you. Punch holes in the bottom of clean cans and place them strategically around the garden and flowerbeds. Fill the cans with water. This trick will lessen the work when its time to water, working very much like drip irrigation.

Did last year's hot, dry summer take out any plants from your uniform row of shrubbery? Use a lattice screen or other decorative fencing section to fill in and hang a sundial or other garden ornament for an interesting effect. To add instant height where once there stood a tree or shrub, place a tall post and secure birdhouses, weather vanes or hooks for hanging baskets.

Houseplants love the great outdoors but, like all container plants, require more frequent watering. A gardener suggests putting a 3-inch square of florist foam (for an 8- to 10-inch pot) in the center of containers and cover with soil. The plants will love you for it.

Tonics And Magic Potions

Orchids are gross nitrogen feeders. Water every two weeks with a solution made with 1 tablespoon of plain ammonia (not sudsy or lemon) to a quart of water. They will love it.

Midsummer lawn feeding will keep your grass green (with proper watering) and a lawn pro passes on the following interesting tonic:

- 1 cup plain household ammonia
- 1 cup Epsom salts
- 1 cup Listerine mouthwash (original)
- 1/2 cup liquid dish soap
- 2 cans of beer (any kind!)

This will cover approximately 2500 square feet and it is suggested that a 15-20 gallon garden hose sprayer be used.

For blossoming plants, in a gallon container add:

- 1 cup plain household ammonia
- 1/2 cup baking powder
- 1/2 cup saltpeter

- 2 quarts water
- 3 cups of dry red wine
- 1/4 teaspoon active dry yeast
- Fill the balance with warm tea

Once a month add 1 cup of this solution to 2 gallons of water and feed a pint to everything that blooms.

And for those nematodes, here is an effective home remedy:

- 1/2 cup clear corn syrup
- 1 gallon of water

Some old-timers also report that sprinkling beet sugar on the soil at the weeline works well, too.

Bitten by one of the poison sumacs lurking in your garden trying to masquerade as something desirable? Dab a blob of toothpaste (not gel) on the bump(s), let it dry and presto!, the itching stops; it keeps it from spreading and will dry it up fast. Effective for insect bites, too.

Mole Info

A brainstorming session with a gardener on humane ways to deal with destructive moles turned up a few interesting ideas. It seems these little critters are very sensitive to sound and vibrations. As they spin, decorative pinwheels set off vibrations in the ground that moles find uncomfortable.

Bury a few wine bottles at 20-30° angles with only the necks protruding from the ground in different directions. It is said that the open bottles catch the wind and the strange noises this creates aggravate the moles and they will move on. Hum...

Garden Wisdom

"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 was a valuable plant." ---Author unknown

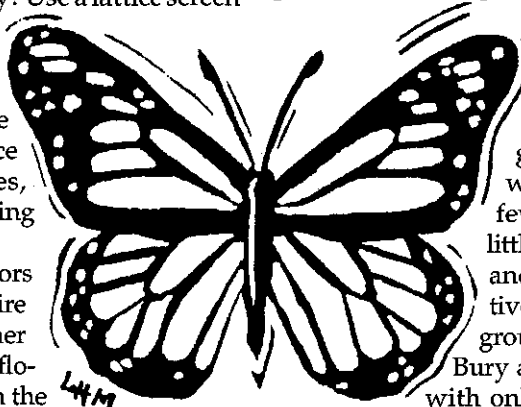
By The Light Of The Moon

The *Farmer's Almanac* suggests the following dates for maximizing your results:

- Plant root crops June 22, 23
- Plant above-ground crops June 4, 5, 12, 13
- Prune to encourage growth June 6, 7
- Prune to discourage growth June 25, 26

Until Next Month

Guys and gals, I am begging and pleading for your tidbits of knowledge to include in this column. You can reach me as follows: (e-mail) kkohl2@juno.com; (phone) 376-4551; (U.S. mail) P.O.Box 250524, LR, AR 72225. Until next month, Ciao!



It's Great To Aerate

By Annette Hurley

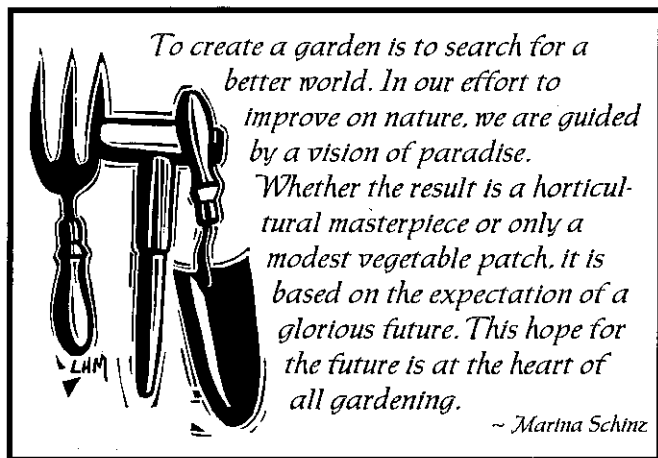
Spring is busting out all over! Think about if you were the soil and had all that life to support. Wouldn't you want something to ease the stress? Well, there is an easy answer. Aeration! Aerating the soil is the key to giving the soil more strength. This is the most beneficial way to change the soil structure in lawns.

Usually, in lawns, we notice compaction taking place over a period of time. In between kids stomping, dogs romping and feet tromping, the ground can become as hard as concrete. If you ever noticed, weeds love to grow in concrete! Aeration is essential to a lawn's good health. Aeration helps to relieve compacted soil by pulling small plugs of the topsoil out of the ground. (The plugs are about the size of your thumb.) They are then laid out on top of the ground to breakdown, adding organic matter to the soil. The soil is opened up and allows for better penetration of oxygen and water. It's a win-win situation for the grass! The grass can gain new strength from a deeper root system. And, being from a rocky Pulaski County, we need all the help we can get adding organic matter to our lawns. If you're not mulching your clippings, this is a good time to start. Mulching not only adds organic matter to the soil, it is a natural fertilizer. If your lawn is organically treated, the microorganisms thriving in the soil will break the thatch down naturally. (Chemicals don't allow many microorganisms to live.)

When mowing, wear some old spiked golf shoes. Anything to scratch the surface of the soil is beneficial. Raking the soil is a great stimulant too, like brushing your hair. An added layer of compost should be applied after aeration. As your organic matter increases, so does the life in the soil and the soil's ability to fight pests and diseases naturally. Think organic!

An Organic Solution For Blackspot

- 5 drops garlic oil
- 1 quart water
- 2 drops Mr. Bronner's Peppermint soap (wetting agent)
- 5 tablespoons baking soda



Special Project Highlights

By Gena Norris

I have found a group of gardeners that can easily match the enthusiasm of our typical Master Gardeners. Who are they? The Green Team at the Immaculate Conception School in North Little Rock. This team of 30 elementary students tackles gardening with an attitude that ensures the Master Gardeners Program will be carried on well into the future!

The Green Team was started by one of our own, Margaret Fizer. Six years ago, there was a lot of talk about local gang activity. Margaret was looking for a way to counter the negatives of gangs with something positive, and came up with the idea of starting her own gang — the Green Team. The team fosters pride, leadership and the value of recognition.

Kudos to Master Gardener Kim Booth who has continued with Margaret Fizer's concepts for the last two years, as well as Margaret Breen for plant selection, garden design and major support of the students! The Green Team is a lot more than enthusiastic workers. Kim and Margaret have planted seeds of gardening that will take off and grow with these young gardeners.

The Green Team sessions included "The Beneficials", planting/work sessions, a Wild Life lesson with a real alligator, naming the gardens and painting clay pots, complete with begonias for Mother's Day. Past Green Teams have studied birds, butterflies and honeybees.

Each year the Green Team plants five gardens on the grounds of Immaculate Conception School. Naming the gardens allows the students to claim the space and fosters pride in ownership for the year. This year's gardens were:

Yo Mama's — A beautiful wood patio, surrounded by gardens and highlighting a statue of the Virgin Mary, is frequently used for weddings. The garden carries on the religious/wedding theme with plantings of all white-blooming plants; many, such as Solomon's seal and passion plant have religious meanings. Daisies and hostas are also used in this large area.

The Big "V" — A small vegetable garden planted on the "square foot" gardening concept, with tomatoes, radishes, peppers and lettuce.

Fancy Faces — The name given to the large, colorful butterfly garden accented with zinnias and fennel.

Flower Power — This garden is accented by an angel statue and planted with nandinas, pansies, hostas and dianthus.

The Red Worm Wigglers — An herb garden which includes all of the fragrant plants we love — thyme, basil, rosemary and garlic chives, for example.

The final session finished with a graduation ceremony including diplomas and refreshments. Margaret Breen gave each student a pumpkin plant to nurture at home. Although the Green Team is usually a spring event, they plan a fall session to include information on planting bulbs for spring color.

Down In Louisiana

By Ann Green

Festival Overview

The idea began small, like a seed scattered in my mind as I scanned the brief article entitled "Dirt Cheap" in the March 1998 issue of *Southern Living*.

Describing an annual plant sale in Louisiana, the one-page article kept coming back to mind after I had shelved the magazine. So I retrieved it, and then called two phone numbers listed for further information: Town Hall, 318-748-6300; Forest Hill Academy, 318-748-6642.

At that point, because the festival falls on the third weekend in March, timewise I could not easily attempt the trip that year, although the phone calls had made it sound even bigger and better than had the magazine. So, plans were shelved along with the article for a season and reshelved when other plans prevented the trip in 1999. Rather than receding in memory, however, I found myself discussing it with my daughter and we began to plan tentatively to attend the 15th annual festival this past March.

The three-day event is called the "Louisiana Nursery Festival" at Forest Hill, a small community best described as just south of Alexandria, which apparently has the closest overnight accommodations. In fact, the major population of Forest Hill appears to be an academy which benefits financially from the events and sales of the festival. [Incidentally, a historic bed-and-breakfast, Lloyd Hall Plantation, (1-800-240-8135) is located at Cheneyville, about a 25-minute drive from the festival.]

The festival itself is in "downtown" Forest Hill and is a combination of events. This year's agenda included: a barn dance both Friday and Saturday nights (\$5 per person at the door); a parade Saturday at 10 a.m. (where children were thrown wrapped candies and stuffed animal toys); carnival rides for kids on Thursday and Friday; plus equipment displays, arts and crafts booths, food booths, and, as Louisianians would say, "beaucoup" of plants. Additionally, the festival is open all day Sunday and includes an optional worship service at 8 a.m.

Horticulture Aspects

The Louisiana Cooperative Extension Service, LSU agents and local nurserymen provided representatives who conducted demonstrations on care of plants and new garden ideas. Booth space rental is available at \$60 for all three days for a 10'x12' area (plus an additional \$10 for booths with electricity) and set up is all day Thursday.

Because we were not truly aware of the magnitude of this festival, we drove down on Thursday, spending the

night at Alexandria, and planning to be at Forest Hill until early afternoon on Friday before driving back to Little Rock. This unfortunately gave time to visit only one major nursery after having been at the festival site. More justice to this festival would require a minimum of two nights and full days on both Friday and Saturday.

Notes of prices were lost, but we can tell you that we found a variety of reasonably priced plants and items, such as a sturdy, well-constructed wooden trellis for \$9. Memory also recalls many people purchasing yellow "Lady Banks" (*R. banksiae* 'Lutea') rose bushes in three-gallon containers which were in full bloom for \$10 (much more developed and less expensive than the bareroot specimen I had previously ordered via a national nursery catalog).

Nursery Information

And, because I was primarily looking for decorative grasses, the Doug Young Nursery (one of the giants of that area) had seven varieties of *Miscanthus*. These were in one-gallon containers and priced at \$2.50 plus 10 percent.

This nursery is known as "The Liriope Place", and their liriope fields contained 4 million plants in 22 varieties. The entire nursery is a multitude of acres which one drives through until plants of interest are located.

Doug Young Nursery's wholesale price list catalog has the following categories: liriope and traditional ground covers, landscape material (azaleas, trees, etc.), seasonal color and tropicals (perennials, hibiscus, palms, etc.), plus small quantities of some plants which were not listed. However, their brochure also promises that if a plant is grown in their trade area, they will be able to tell the buyer where to find it. Their numbers are: Information, 318-748-6878; Fax, 318-748-8208; E-mail, dynsales@centuryintet.net.

This wholesale nursery, as well as many others in the immediate vicinity, is open to the general public only during this festival weekend. And they were quite busy while we were there. We saw all sorts of vehicles filled to the brim with plants — cars, pickups, trailers, and a surprising number of boats being pulled behind various vehicles, full of a different kind of "catch of the day."

A locator map of the nurseries is available at the festival site and, although 200 nurseries are touted as being in the area, it appears that the Young Family may have gobbled up a number of smaller ones, because we could

See *Louisiana*, continued on next page



Master Gardeners Picnic At Old Mill

Despite threatening weather (heavy skies overhead with tornadoes in western Arkansas), dozens of Pulaski County Master Gardeners gathered May 18 for the annual Spring Picnic. First, they strolled through the Old Mill, admiring the work of their fellow MGs in the large



(and beautiful!) garden. Then they moved over to the Lakewood Pavilion, where they swapped stories, plants and door prizes, after enjoying a superb repast of barbeque and spaghetti catered by Corky's BBQ (plus desserts prepared by our own MG chefs). Despite her initial moodiness, Mother Nature cooperated until the festivities were over and everyone was safely home. ♦



Master Gardeners gather with friends in the Lakewood Pavilion after strolling through the grounds of the Old Mill.



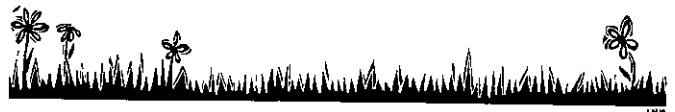
Jane Druff, MG social committee chair (left), and Evelyn McKinney, PCCES secretary, greet each other as they look over homemade desserts at the picnic.

Herbs, continued from page 1

leaves available through the year are more flavorful and greener than the dried seasoning sold in groceries. The four are "evergreen" which means that even while dormant in winter, there are leaves that can be harvested. A small tent of spun-bonded fabric can give them protection from extremes of cold and wind.

After wintering, the four herbs will come alive with new growth. Encourage the new growth with a little balanced fertilizer scratched into the soil surface. Parsley will burgeon along with its mates but will also start to put out a seed stalk. When it is full grown and the seeds are ripe, they will lose their green and cure. Then the parsley plant will die. Sometimes it can be fooled into not dying by cutting the seed stalk out as soon as it appears, but it is usually well to let nature take its course and start new parsley plants each spring. Sage, rosemary and thyme will continue to grow and be happy as long as they don't encounter extremes of environment. Lack of water, even in winter, may do them in. Too much water will also kill them. Weeds will compete for their plant food, but grass and other competitors can be kept down with a mulch. Put down a layer of grass clippings, compost, paper, or plastic to deter the weeds. There are hardly any diseases or insect pests that will be fatal to your herbarium. If the unexpected does happen, there is always helpful information available at the Agriculture Extension Office.

If you know all of the words, croon the lyrics of "Parsley, Sage, Rosemary, and Thyme" to them. They will be happy, and so will you because these four yield leaves that can be added to your cooking and provide additional flavor and attractiveness to each dish. Begin simply with a few leaves, adding more if the effect seems too mild. Add parsley to your salads, or as a garnish to any dish. Use sage to give the turkey stuffing that traditional family flavor. Bake fish or chicken with rosemary enclosed in aluminum foil. Put a sprig or two of thyme into a cruet of vinegar for a special taste in cooked greens or salads. And that is just the beginning. When you discover how much a small patch of a few herbs can do to improve the flavor or aroma of the dishes on your table, you will want to expand your herbarium to include other flavorful varieties. And the flavors and melody will linger on. ♦



Louisiana, continued from page 6

count only 56 others listed in addition to six starred as part of the Young Family ("since 1942") Enterprises. This, however, assuredly provides a sufficient number to choose between during one weekend of opportunity.

An unexpected perk of the trip on the way home was luscious Louisiana strawberries for sale along the roadside.

One personal project over this summer will be obtaining catalogs and information on plant specialties from those 56 nurseries so that a more planned approach can be taken next time we go. I'll be glad to share any information received with interested Master Gardeners (501) 565-6583. And it's not too soon to start making plans for next March if one is interested. ♦

Trading Post

By Frances Young

Imelda Horne, 666-9303, has *Helleborus orientalis* (Lenten roses), hybrid niger seeds.

Gail Roberson, 834-1055, has curly willow, pussy willow in containers.

Jan King, 758-3446, has Texas yellow columbine, Cleome, motherwort, anise hyssop, foxglove.

Dolores LeCompte, 664-4795, has purple iris available in July (name unknown) and wants vines, wisteria, any climbing kind.

Mildred Walton, 663-7331, has white wisteria in gallon containers. *

Master Gardener Alert!

River Market Project

The schedule for the summer work calendar at the *River Market* is June 3 and 17, July 15 and 29, August 12 and 26, and September 16 and 30. If there are any changes in your assigned time, call Laura Anne Wilson at 371-9993.

Memorial

Tom Norman, a fellow Master Gardener, is being remembered by our group with the planting of an overcup oak tree and a memorial to First Christian Church of Sherwood.

June Master Gardener Meeting

On June 13 at 11:30 a.m. the Master Gardeners will meet at the state extension office building on University. This meeting will not have a single speaker on a single subject but rather a panel who will answer your questions — horticultural and organizational. You will have received additional information in this mailing. Please put your questions on the enclosed card and mail it in before the meeting.

MGs in *Southern Living*

Two of our own are in *Southern Living* magazine — Nancy and Duncan Porter's porch and garden were in the May issue, and Jan King's garden will be in the June issue.

See *Nursery Discounters*, next column

Dig In Here ...

Does a gardening/horticultural problem have you stumped? These resources can help you solve nearly any gardening dilemma:

Pulaski County Cooperative Extension Service Office
2901 West Roosevelt Road
Little Rock, Arkansas 72204
340-6650
bphelps@uaex.edu

Arkansas Cooperative Extension Service Office
2301 South University
Little Rock, Arkansas 72204
671-2000

Pul. Co. Horticultural Hotline
340-6660

University of Arkansas Cooperative Extension Service Website: <http://www.uaex.edu>



Nursery Discounters

Wear your name tag and receive a discount from these nurseries:

Ark. Landscape & Garden Center
Burnett's
Horticare
Lakewood Gardens
The Good Earth *



Janet Lanza, professor of biology at the University of Arkansas at Little Rock, shared her slides and knowledge of butterflies with us at the May MG meeting.

Spread The News!

If you have an item of interest or a newsworthy photo, or need to tell the general membership something about your committee, this newsletter is your opportunity to reach all Pulaski County Master Gardeners.

Please provide your information to us by the June MG meeting to see your message in the July issue of the newsletter.

You may bring your information to the meeting or send it via: Beth Phelps, Pulaski County Cooperative Extension Office, 2901 West Roosevelt Rd., Little Rock, AR 72204, 340-6650, bphelps@uaex.edu; Mrs. McKinney, 340-6650; Rose Hogan, 374-9429, rhogan@aristotle.net; or Cheryl Kennedy, 753-8192, fax 753-6305, and inthegarden@aristotle.net.

If you have late-breaking news unavailable by the meeting date, Beth may be able to add it to her letter that is mailed with the newsletter. *

Master Minutes Staff — 2000

Chair/Editor	Rose Hogan
Co-Chair/Layout/Photos	Cheryl Kennedy
Art Staff	Lisa Hanson Mantle Debra Atencio Claudia Barone Lois Clifton Carl Goodson Mary Douglas Ann Green Lynda Harkenreader Annette Hurley Kathy Kohl Julia Loyall Gena Norris Laurie Pierce Ellen Rouch Phyllis Rye Libby Thalheimer Linda Westergard Laura Anne Wilson Lynne Woods Frances Young

Pulaski County Master Gardener Volunteers are trained volunteers working with the University of Arkansas Cooperative Extension Service and Pulaski County Government to provide demonstration gardens and horticulture-related information to the residents of the county. In 1999, these volunteers gave more than 7,000 hours of service.

Elisabeth J. Phelps
County Extension Agent — Agriculture



Dig Into The World Of African Violets

By Lynda Harkenreader

The ultimate house plant? A plant anyone can grow? So how come some have lush foliage and gorgeous blooms while others end up scraggly with a few tiny flowers?

Let's dig into the world of African violets: where they come from, which ones to get, where to get them and how to make them grow to their beautiful potential.

Background

The original African violet or *Saintpaulia* came from the southeastern side of Africa, in the countries of Tanzania and Kenya. Their natural habitat has always been rocky hillsides under the canopies of tropical forests. These first violets, discovered in 1892, have blossom colors ranging from blue to purple to all white. They grow in two main basic forms: the rosette and the trailer.

Rosette Form

The rosette is the traditional violet plant that your grandma grew. It is very symmetrical. Viewed from the top, the leaves grow outward like the spokes of a wheel. Species *confusa* and *S. ionantha* are the two parents of many modern-day hybrids.

Trailer Form

The trailer has several branches or "crowns" from which small groups of leaves sprout, rather than the one

central crown of the rosette. The generally smaller flowers are more numerous and are scattered throughout, rather than just in the center of the rosette. Trailers have become



increasingly popular due to hybridization by Ralph Robinson, who produces varieties that have abundant blossoms. Also, *S. rupicola* makes a nice trailer.

Hybrids

Today's hybrid violets have come a long way from their ancestors found in Africa. 'Tommie Lou' is a variegated variety that has been around since the '50s and is still winning shows in the violet world. 'Strawberry Festival' is a variegated hybrid that actually has some pink in the leaves. If you like red violets, 'Arapaho' is very eye catching.

'Cherokee Trail' is a variegated trailer and is very lovely grown in a large flat pot. There are green blossomed violets, and up and coming is a yellow blossomed plant.

Beginning growers may find that violets bought from grocery stores and discount stores are great for growing in windows or natural light. Since you won't be able to buy trailers from most commercial outlets, you'll probably start with a rosette. Any of the readily available varieties will grow well in our climate.

Care Of Violets

To successfully grow these rewarding plants, a few basic needs must be met. Violets need lots of light to
See Violets, continued on page 7

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Arkansas Is Our Campus

Calendar And Notes

July

The Ozark Folk Center will present a *plant propagation workshop* on July 14. Hands on from greenhouse to gardens. Intensive plant propagation and seed germination theory. Activities will be based on the current season in which the class takes place. Preregistration is required. (870) 269-3851.

The Memphis Botanical Garden will have an adult class on "*Topiaries, Moss Balls and Other Neat Nature Decorations*" from 10 a.m. - 11:30 a.m. July 14. (901) 685-1566.

The Hot Springs Iris Society will have a *rhizome sale* starting at 8 a.m. on July 15 at the Community Adult Center at 700 Reserve in Hot Springs.

Family Ozark Herbal Odyssey will be presented by nationally acclaimed herbalist, chef and garden expert Susan Belsinger, her daughters, and the Ozark Folk Center's garden staff, July 17-21, studying herbs, exploring the Ozark woods and planning and holding gourmet cookouts. For information call (870) 269-3851.

On July 28 there will be an *Organic Gardening Workshop* at the Ozark Folk Center. It will cover the "how to's" of growing vigorous, healthy and healthful plants using "organic methods". For registration information, call (870) 269-3851.

The Central Arkansas Iris Society will have a *plant sale* July 29 at the Little Rock Garden Center at 8 a.m.

August

A workshop on *Organic Container Gardening* will be given at the Ozark Folk Center on August 4. Call (870) 269-3851 for registration information.

At the Memphis Botanical Garden a noontime talk will be given on "*Exotic Tropicals*" on August 9. (901) 685-1566.

The *plant propagation workshop* will be given again August 11 at the Ozark Folk Center. See above for details.

The *Hot Springs Daylily Society* meets at 10 a.m. August

12 at the Garland County Library.

Lake Chicot State Park at Lake Village on August 11-13 will have *guided field trips to search for early migrants and rare birds*. Contact the park at (870) 265-5480.

The *Arkansas Unit of the Herb Society of America* meets at 10:30 a.m. August 17 at the Little Rock Garden Center.

September

There will be *sunset lake tours* September 1-30 at the Lake Chicot State Park on the largest natural oxbow lake in the nation: reservations required. (870) 265-5480.

An *Organic Gardening Workshop* will be given September 4 at the Ozark Folk Center. For registration information, call (870) 269-3851.

The Missouri Botanical Garden, St. Louis, will have its annual *Japanese Festival* September 2-4. Admission to the Botanical Garden costs \$5, \$3 for ages 65 and over, free for children ages 12 and younger. (800) 642-8842.

The program for the next *Pulaski County Master Gardener Meeting* on September 12 will be Paige Shurgar of the Nature Conservancy.

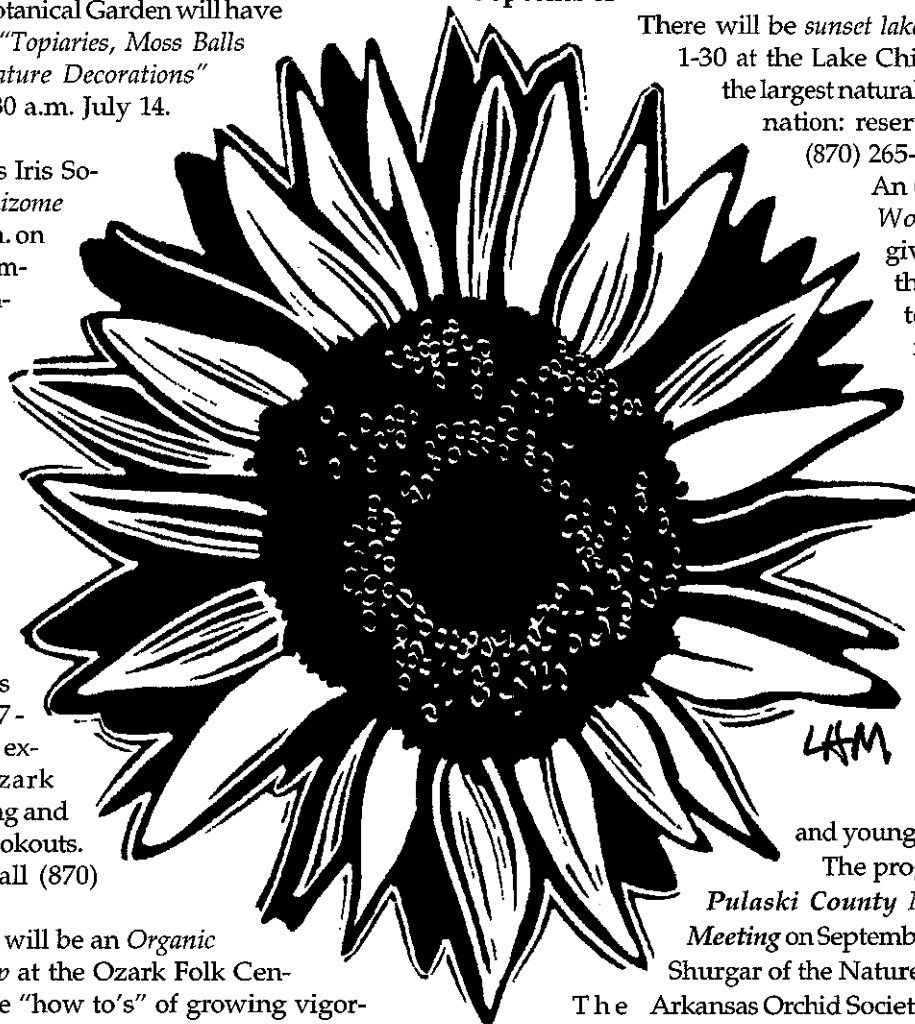
The Arkansas Orchid Society will have a *plant auction* September 17. For information call 922-3296.

There will be a *Native Plant Symposium* at the Ferndale 4-H Center in Little Rock on September 20. For information call (501) 671-2232.

The *White County Daylily Society* will meet at 9:30 a.m. at the Century 21 building in Searcy on September 20.

2001

The International Master Gardener Conference will be held in Lake Buena Vista, Florida, May 29 - June 1. Contact Beth if you are interested in going. If enough people are interested, a group travel arrangement will be looked into. 340-6650.



July Checklist For Master Gardeners

By Libby Thalheimer

Cutbacks

Pinch back and thin annual herbs. Deadhead spent blooms to allow continued blooming and to prevent seed production. Bush roses should be lightly pruned to encourage new growth for fall bloom.

Cover-Up

Apply a 3-inch layer of mulch around shrubs and in the vegetable garden to keep down weeds and to retain moisture.

Dig In

Later in the month, plant broccoli, cabbage, cauliflower, Irish potatoes, summer squash, southern peas, sweet corn, tomatoes and other fall vegetables. Transplant petunia and zinnia seedlings into your beds. Plant seeds of Canterbury bells, foxglove and sweet William in a cold frame.

Fertile Grounds

Fertilize all in the garden except acid-loving plants and iris. The last application of fertilizer for camellias should be by July 1st.

Just Add Water

Water deeply about once a week to combat drought-stress. Early morning is the best time to water. Use soaker hoses to conserve water and to avoid watering foliage. Wet foliage can encourage diseases. Water annuals with a salt-free club soda (fresh or stale) to brighten and intensify their colors.

Splendor In The Grass

Set your mower height at least at 2-1/2 inches for the summer. Longer grass blades with deeper roots are more drought and stress tolerant. Longer grass also interferes with weed seed germination. Aerate compacted soil to combat weeds. Consider moss as an alternative to grass for those shady spots with acidic, compacted soil and thin turf. (Moss will also grow on alkaline soil.) Control crabgrass and other grassy weeds in bermuda and zoysia by spraying with MSMA. Be sure to water well before the application.

Who's Bugging You?

Aphids, cutworms, corn borers, Mexican bean beetles, spotted cucumber beetles, whiteflies, lacebugs, bagworms, black vine weevils, chinch bugs, fungus, Japanese beetles, leaf miners and slugs will need vigilant

control this month. Use insecticidal soap or Malathion. Or use a garlic/pepper tea, an organic insecticide, to control aphids, whiteflies and other destructive insects. Control the aphids to control mold. Mold grows on the honeydew secreted by the aphids. Pick off and dispose of bagworms on arborvitae or junipers.

Use diatomaceous earth or pyrethrum to control slugs, fleas, ticks, cinch bugs, roaches, crickets and fire ants.

Place mothballs around the base of cucurbits, which are susceptible to vine borers, as the adult is a moth.

Corn earworms on cannas can be controlled with *Bacillus thuringiensis* (Bt).

Continue to check azalea, boxwood, and camellia for lacebugs and spider mites.

Check evergreens for scale.

Keep up the spraying schedule on roses and red-tipped photinia for black spot.

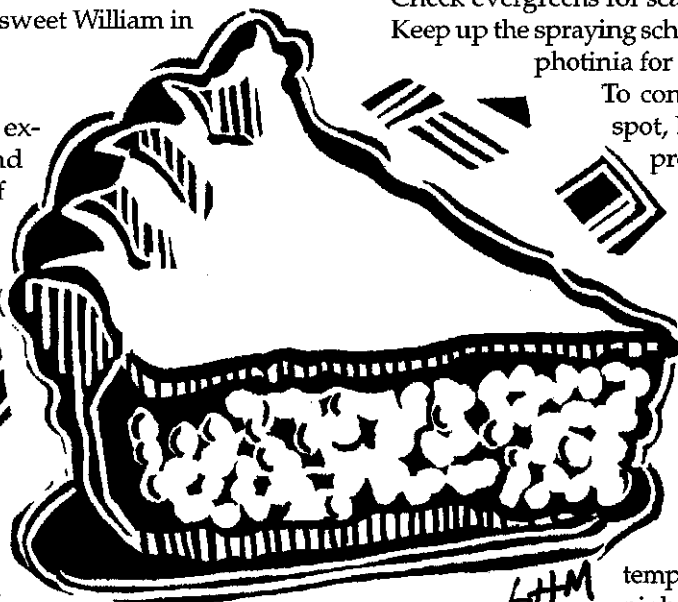
To control powdery mildew, black spot, brown patch, or other fungal problems, use a registered fungicide such as Funginex, or an organic fungicide made by mixing 4 teaspoons baking soda, and 1 teaspoon liquid soap or vegetable oil into one gallon of water. Spray lightly on affected foliage (try not to spray the soil).

Keep tomatoes supplied with mulch, lime, calcium and ample water. Blossom drop is a problem as daytime temperature hits the upper 90s and night temperature does not fall

below 75. If blossom end rot is a problem, remember it is a calcium deficiency and can be controlled by keeping the moisture level constant, and by spraying three times with Stop Rot. Even moisture will help prevent cat-facing and fruit cracking.

July Plot

Rabbiteye blueberries are still in season. Althea, anise mint, artemisia, aster, balsam, beautyberry, bellamcanda, buddleia, butterflyweed, campsis, cannas, chive, cleome, clerodendrum, coneflower, coreopsis, crape myrtle, crinum, dahlias, daisies, echevera, euphorbia, feverfew, garlic, gaura, gladioli, hemerocallis, hibiscus, hostas, hydrangea, hyssop, ironweed, kerria, lantana, liatris, lilies, lythrum, lycoris, marigolds, marjoram, miscanthus, mullein, nicotiana, oregano, oxalis, petunias, phlox, portulaca, roses, rudbeckia, sage, salvia, scabiosa, snapdragon, tansy, thyme, tuberose, verbena, veronica, zebra grass, and zinnia.



LHM

What Works!

By Kathy Kohl

My begging and pleading last month for your input has paid dividends, as you, dear sister and brother gardeners, have come through with flying colors with great tips to pass along that really work!

A Million Uses

A great aid when potting plants is a big plastic pan with sloped sides called a mixing pan available in the concrete and mortar area of your local home building store. I think this is just the thing for your soils and

And about seeds we gardeners have along a clever for organizing seeds that finds yet another use for those handy film cans and egg cartons. Store collected seeds in the cans, label with file folder labels and store upright in the egg cartons. They stay dry, handy and don't take up much room.

More Organic Wisdom

Master Gardener Ginny Jayroe passes along some great info she gleaned from the July/August 2000 issue of *Organic Gardening* magazine. If you have fungi or mildew on your zucchini, a new "organic" method for controlling it is to combine 1 cup of milk in 9 cups of water and spray it on twice a week. According to the research, this was more effective than the fungicides fenaridin and benomyl.

Black spot a problem on your roses? Grind a large bunch of tomato leaves and mix with 5 pints of water and 1 ounce of cornstarch. Keep this mixture refrigerated and spray your roses bushes once a week. This is not only effective on black spot, but also aphids, cabbage worms and squash borers.

And, if spider mites are your nemesis, you can spray plants with a mixture of 1/2 cup buttermilk, and 4 cups wheat flour to 5 gallons of water.

Ants, ants, everywhere ants! It seems ants don't like cucumber peels, cleaning powder, bone meal, black pepper or white vinegar. And it is said they will never cross a

chalk line. Well, draw a line on the patio or wherever they tend to march and check this one out for yourself!

And rubbing pennyroyal (*Mentha Pulegium*) on your skin will repel mosquitoes.

Presto!

To freshen up your glass vases and remove those unsightly stains that you just can't seem to reach down in the bottom, fill the vase with water and drop in two Alka-Seltzer tablets and plop-plop fizz-fizz away that scum.

Tools rusty? Soak overnight in white vinegar and rust-be-gone. Spray lightly with vegetable cooking oil, wiping away the excess.

Sometimes those powdered chemicals or organic mixtures don't completely dissolve in water and will clog up your sprayer. To prevent this, stretch a nylon stocking over the mouth of the sprayer when pouring in the mixture to strain out any solid pieces.

By The Light Of The Moon

The Farmer's Almanac suggests the following dates for maximizing your results:

Plant root crops July 20- 21, and 28-29.

Plant above-ground crops July 10-11.

Prune to encourage growth July 3 and 12-13.

Prune to discourage growth July 22-23.

Same time next month folks. Keep those cards of garden wisdom coming my way so I can pass them along.

You can reach me as follows: (e-mail) kkohl2@juno.com; (phone) 376-4551; (U.S. mail) P. O. Box 250524, LR, AR 72225. Until next month,

Ciao!



LHM

Organic Gardening

By Annette Hurley

Most gardeners invest a great deal of time, energy and money trying to defy bugs and disease. Mother Nature hands us persistent pests, hungry slugs and horrific blights. As patrons of the earth, we gardeners must examine why these perplexing struggles exist. The true key to pest control is knowledge and understanding.

The diverse life forms in your garden are interconnected to teach you to work within those systems to manage and control problems without causing damaging side effects.

Why not introduce methods to bring in the "good bugs"? Instead of using chemical poisoning, seek out methods that will bring the beneficial bugs in to your garden to help you fight those pesky insects!

First of all, choose plants that are healthy and don't bring pests from the garden center. Plants that are suitable for our region and that are resistant cultivars work best. These plants can actually avoid problems, and new cultivars are being introduced each season.

An easy way to reduce insect problems in the garden is to make your garden a more suitable environment for the beneficial insects like ladybugs, ground beetles and parasitic wasps. Make a "bug bath" for your garden by partially filling an old birdbath or container with rock or gravel. Then add just enough water to keep the stones moist. Since most beneficial insects are struggling for dew on hot summer mornings, this water helps them survive a summer drought and keeps the good bugs in your garden, not travelling somewhere else.

Grow small flowers such as mint, carrot and daisies to draw beneficial bees, wasps and flies. A biennial crop such as parsley attracts parasitic wasps and predatory flies. By letting some of your vegetables like cabbage, mustard and broccoli bolt and flower, these blossoms will entice beneficials too. Other suggestions for borders are dill, caraway, 'White Sensation' cosmos, buckwheat, fennel, spearmint, 'Lemon Gem' marigold, tansy, white clover and crimson clover.

The toad is a great garden "gatekeeper". Few natural pest controls are as effective as the lowly toad. During the summer months, just one toad can consume as many

as 110 slugs, cutworms, caterpillars and other flying and crawling creatures every day. Lure the toads to a cool, shelter such as a broken ceramic pot upside down in the garden. To make a toad house out of a plastic bucket, turn it upside down and cut an archway at the base. Then put the shelter in a moist place out of the sun, and throw topsoil up around the side to keep it anchored.

Put sandpaper collars around your plants by cutting "doughnuts" from sheets of sandpaper, or recycle used discs. Cut a slit to the center of each circle and slip the collars around the stems, laying them on the ground.

Slugs love dog chow. Soak dry dog food in just enough water to make it squishy, then put small piles of the bait directly on the ground in the beds. Slugs will be clustered around the dog chow and you can scoop them up.

Turn the hose on aphids and scale. By using a big blast of water, you can knock off the unwanted pests. This must be done every other day.

Here's a recipe to make your own batch of firewater:

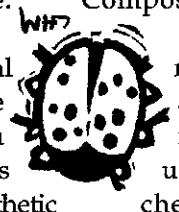
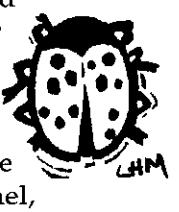
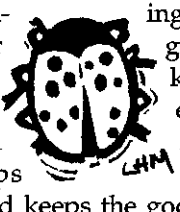
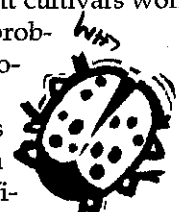
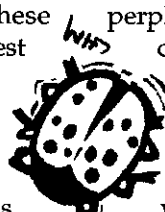
- 2-4 jalapeno, habenero or serrano peppers
- 3 cloves garlic
- 1 quart water

Mix all of the ingredients in a blender and let them steep in a quart jar of water in the sun for several days. Strain through cheesecloth or pantyhose. Spray as needed. Repeat after a rain.

Remember to listen and watch for signs in your garden. If you're patient and nurturing, Mother Nature will show you something. It may be the health of your soil, which can always be amended with minerals and compost to deter disease. Compost is Mother Nature's "black magic".

Try to use a safe, non-chemical method in your vegetable garden. As there are many substitutes available, you must take the time to learn the methods used by farmers and gardeners before synthetic chemicals were born.

If you are interested in more suggestions, my email is: ahurl@aol.com or call me at Positive Growth Organic Lawn Care: 223-2237.



Perennial Vegetables

By Carl Goodson

A vegetable garden is usually thought of as a collection of annual plants grown from seed and completing their life cycle within one season. But there are a few vegetables that do not die at the end of the season; they stay alive, though dormant, through the winter and come up again in the spring. So they qualify as perennials. This article will describe three: asparagus, Jerusalem artichokes, and multiplier onions.

Perennials must be grown in a place that will not be disturbed by the yearly ritual of plowing and replanting. So they must be to one side of the plowed area. The ground needs to be thoroughly prepared because these plants will be in their place for several years.

Asparagus

Asparagus must be planted deeply in friable soil. After having plowed as deeply as possible prepare the exact location of the asparagus plants by digging a ditch about two feet deep. In the bottom of the ditch, stir in about a foot of well rotted compost with amendments recommended in a soil test. At planting time, place the asparagus with roots spread out in all directions. Then backfill more soil and compost, just covering the root clumps. As the first shoots begin to grow, backfill some more, continuing the process until the bed is again at ground level.

Depending on whether you have purchased one-, two- or three-year-old roots, you will wait until the spring that begins to reveal harvestable stalks about a half inch in diameter. Continue to harvest daily until the size of new shoots is no longer large enough. Then let the beautiful foliage continue to grow through the season. After frost, or later if the foliage is still attractive with its small red berries, cut the fronds down at soil level and take them away. Then scratch in some all-purpose fertilizer, some more compost, and again wait until spring sends up more of

the delectable sprouts.

Jerusalem artichokes

Jerusalem artichokes are not really artichokes, but are members of the sunflower family. This will reveal itself to you when the plants emerge, followed later by small sunflower-shaped and -colored blossoms in summer. The plants will grow to be six to eight feet tall.

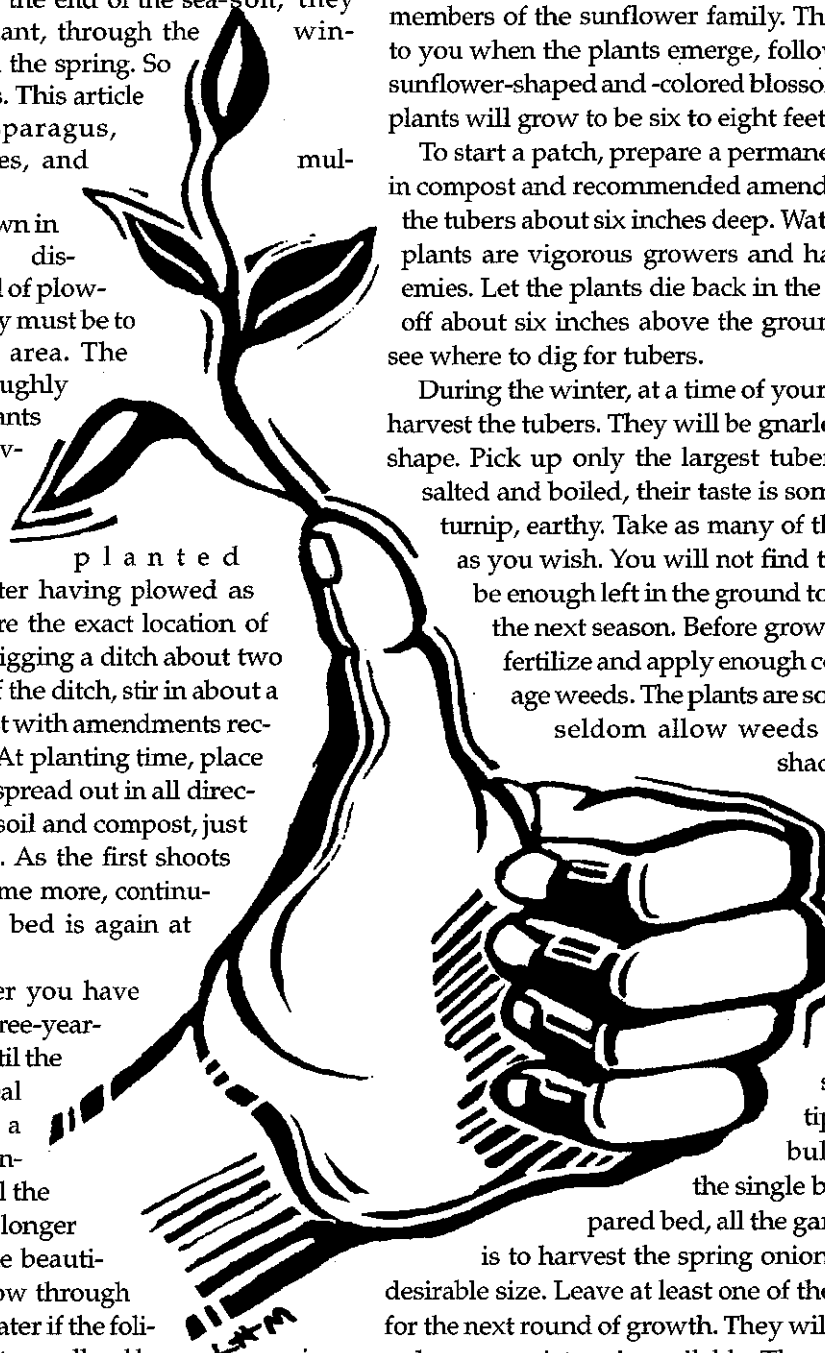
To start a patch, prepare a permanent bed by digging in compost and recommended amendments. Then plant the tubers about six inches deep. Water thoroughly. The plants are vigorous growers and have few insect enemies. Let the plants die back in the fall. Cut the stalks off about six inches above the ground so that you can see where to dig for tubers.

During the winter, at a time of your choosing, dig and harvest the tubers. They will be gnarled and irregular in shape. Pick up only the largest tubers for use. Peeled, salted and boiled, their taste is something like a wild turnip, earthy. Take as many of the tubers at a time as you wish. You will not find them all; there will be enough left in the ground to have seeded it for the next season. Before growth starts next year, fertilize and apply enough compost to discourage weeds. The plants are so vigorous that they seldom allow weeds to grow in their shade.

Multiplier Onions

Multiplier onions are, as the name suggests, bulbs that propagate themselves by sending up multiple plants from one bulb. After planting the single bulbs in a well prepared bed, all the gardener needs to do is to harvest the spring onions when they are a desirable size. Leave at least one of the clump in the bed for the next round of growth. They will continue to grow as long as moisture is available. They will stop growing when the ground gets cold.

The next spring, up they come again to provide spring onions much earlier than any grown from plants, bulbs, or seeds.

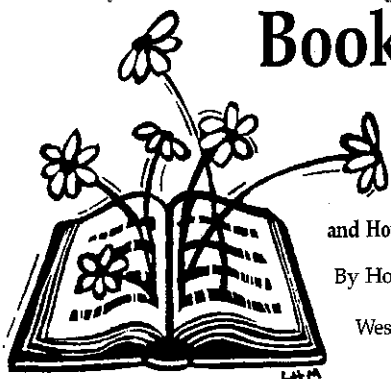


Book Review

By Lois Clifton

Top Rated Ground Covers and How to Use Them In Your Garden

By Horticultural Associates, Inc.,
Racine, Wisconsin
Western Publishing Co., Inc.



Ground covers make up a unique group of landscape plants. They are the only permanent plants that can provide a sweep of greenery or color without blocking your view or creating a closed-in feeling. They act as a physical barrier but do not create a visual barrier. They give the garden a finished look.

Ground covers are wonderful for companion planting. Select companions whose texture and color create interesting visual combinations. Root systems of many ground covers are shallow and unaggressive and will not compete with those of their companions.

One of the best ways to use ground covers is as problem solvers. They will often grow under trees and in wet places decorating otherwise bare ground.

Ground cover plantings are generally easy to care for and do not require a great investment of money and effort to maintain them. Your greatest investment will be made during the time the planting is becoming established — thereafter, maintenance is minimal.

The book has 125 colored illustrations with descriptions of each. The section on "How to Plant" is excellent. This is a beneficial book you will really enjoy reading. *

Suzhou-Style Gardens

This summer, the largest Suzhou style garden outside China will open in Portland, Oregon. The \$10 million garden is a work of art and a symbol of friendship between an American and a Chinese city. All the buildings, bridges, mosaic pathways and even the towering rockery were painstakingly made in Suzhou. The Garden of Awakening Orchid will be freestanding on an entire city block in Chinatown and near to the riverfront. Within the enclosed garden, serpentine walkways, ponds, bridges, and open colonnades will guide visitors through a meticulously arranged landscape of fantastic rock groupings, delicate trees and shrubs, lattice screens, and pavilions. It will take several hundred thousand roof tiles to cover the walkways and buildings which traverse the lake, mountains and forest of the garden. All of them are essential and each depends upon the support of the next.

Suzhou Style

Suzhou is a historic capitol of China. Built on a growing network of regional shipping canals, Suzhou was platted not with streets but with waterways. These canals and the numerous stone bridges eventually earned Suzhou the nickname the "Venice of China". It is located just a two-hour bus or train ride from Shanghai. It is one of China's oldest, most historically important and well-preserved cities, laced with unique styled, See *Suzhou Style*, continued on page 8

Violets, continued from page 1

grow and bloom properly but do not need direct sunlight. A north or east window is best, although south and west is okay, provided the window is shaded.

The natural-light violet needs a good quality potting mix and likes to stay evenly moist, drying out just slightly before the next watering.

Most store-bought violets are in a commercial potting mix which has been sprayed with an additive to hold water. So be careful not to overwater your violets. Watering from the top or bottom is fine; both will work in moderation.

A well-fed violet is a happy violet. A good fertilizer should be used, such as Miracle Grow, Peters, etc. Use 10-10-10 or 20-20-20 for growth and something with a higher middle number for flowering. Use this fertilizer 1/8 teaspoon to a gallon of water every time you water, for a lush plant. Remember to use one watering without fertilizer to flush out any built-up salts.

Proper grooming is also necessary to keep plants in tip-top shape. Remove old flowers and old or yellowing leaves. The natural-light violet needs to be turned frequently to help the plant grow symmetrically. Violets have hairy leaves, so a bath under a tepid spray is beneficial and needed to keep leaves in shape. Just remember to pat them dry and don't let the water sit on leaves overnight. This and cold water is what causes spotting.

When your violet needs to be repotted, you can buy potting mix, preferably a light, porous type, at your local greenhouse. However, you can make a much better mix yourself at home. A good start on a homemade mix includes 1/3 peat, 1/3 perlite and 1/3 vermiculite. Some growers add dolomite lime and charcoal. In the deep south, a light mix is needed, so increase the perlite if your soil stays too wet or if your leaves turn yellow or wilt.

After you become a more experienced grower, you will want to look into the numerous varieties and colors available from modern hybridizers.

Words don't do justice to them, but if you have access to a computer at home or at the library, go to the website of the African Violet Society of America, Inc., <http://www.avsa.org>, for pictures and information. If writing, contact them at AVSA, 2375 North Street, Beaumont, TX 77702. You get a free trial magazine with color pictures of many prize-winning old and new varieties. It also contains the latest culture information and tips on growing your perfect violet.

Commercial growers like Cape Cod Violetry in Massachusetts also have a fairly complete catalog for species. So take the plunge and try a violet. *



**GARDENING ... IS SIMPLY
UNDERSTANDING AND
WORKING WITH THE LAND.**

Geyata Ajilugui

Oriental Gardens, continued from page 7
 implisively detailed gardens.

Gardens have long been considered the highest of all art forms in China. The tradition began with the landscaping of imperial palaces around 3,000 years ago. Suzhou's gardens are a wholly distinct tradition, dating to the 15th century, when the city became China's trading and financial capital. The city's wealthy patrons developed a tradition of small, private retreats unprecedented in their complexity and craftsmanship.

Though the most famous garden of the era — the Garden of the Humble Administrator — is more than 10 acres in size, most were much smaller. But within their high walls, what unfolds are miniature worlds where every view has been considered with the care of a painting. Winding pathways and zigzagging bridges turn the visitor through processions of changing views, each dynamically juxtaposing large and small, light and dark, foreground and background and — the two key elements of all Chinese gardens — land and water.

Empowered by such extraordinary patronage, the Ming-era garden designers became masters of illusion and scale. Spectacular architecture is surrounded by dramatically sculpted rocks that rise with the splendor of mountain ranges. The plantings are carefully selected for color, shape, texture and even what they sound like in the wind and rain. Even the pathways are paved in mosaics designed both to look at and to massage the feet.

By 1912 there were 168 gardens in Suzhou. Now there are 50, 12 of which have been restored and opened to the public. A governmental agency, Suzhou Garden Design Institute, oversees the creation of Suzhou-style gardens. The only difference between the details of the historic gardens and the parts being crafted at present is the patina of age.

The Classical Garden Construction Company, one of several such companies, crafts the parts for renovations and for export. Historically the skill to make the parts was handed down father to son. But in more recent times, the artisans are trained for three or four years in secondary school. Power tools were only introduced about 10 years ago. But even today, they are served for only the most basic tasks. Most work is still done by hand.

For the Portland garden, the Classical Garden Construction Company artisans have created a main pavilion comprised of more than 2,000 parts, from the posts and beams of the structure to the tiny blossoms and bamboo shoots of the bench backs, carved in wood and fastened together in intricate mortise and tenon joints.

Continued in next column

Dig In Here ...

Does a gardening/horticultural problem have you stumped? These resources can help you solve nearly any gardening dilemma:

Pulaski County Cooperative Extension Service Office

2901 West Roosevelt Road
 Little Rock, Arkansas 72204
 340-6650
 bphelps@uaex.edu

Arkansas Cooperative Extension Service Office

2301 South University
 Little Rock, Arkansas 72204
 671-2000

Pul. Co. Horticultural Hotline

340-6660

University of Arkansas Cooperative Extension Service
 Website: <http://www.uaex.edu>

Master Gardener Alert

Dues

If you haven't paid your dues for the year, please send your check for \$10 to the Extension Office. About 40 of you need to check and make sure you haven't done so yet.

Meetings

The next Pulaski County Master Gardener Meeting is September 12. There will not be July or August meetings. *

Trading Post

By Frances Young

Martha Whitehurst, 868-4517, has wild flowers — Mexican hat.

Paul McDonnell, 224-9094, has variegated ivy ground cover.

Lou Sanders, 221-9722, has Aucuba seedlings.

Bettye Jane Daugherty, 221-2865, has foxglove seedlings and chameleon plant. *

Oriental Gardens, cont. from previous column **Other Suzhou Gardens**

The Staten Island Horticultural Society Garden, the city of Vancouver, B.C., the New York's Metropolitan Museum and the Splendid China theme park in Orlando were created by the Suzhou Garden Designing Institute and Suzhou Classical Garden Construction Company.

Spread The News!

If you have an item of interest or a newsworthy photo, or need to tell the general membership something about your committee, this newsletter is your opportunity to reach all Pulaski County Master Gardeners.

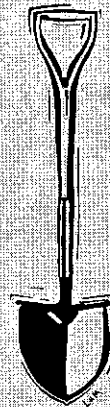
Please provide your information to us by the second Tuesday of July to see your message in the August issue of the newsletter.

You may bring your information to or send it to: Beth Phelps, Pulaski County Cooperative Extension Office, 2901 West Roosevelt Rd., Little Rock, AR 72204, 340-6650, bphelps@uaex.edu; Mrs. McKinney, 340-6650; Rose Hogan, 374-9429, rhogan@aristotle.net; or Cheryl Kennedy, 753-8192, fax 753-6305, and inthegarden@aristotle.net.

If you have late-breaking news unavailable by the closing date, Beth may be able to add it to her letter that is mailed with the newsletter. *

Master Minutes Staff — 2000

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Pulaski County Master Gardener Volunteers are trained volunteers working with the University of Arkansas Cooperative Extension Service and Pulaski County Government to provide demonstration gardens and horticulture-related information to the residents of the county. In 1999, these volunteers gave more than 7,000 hours of service.

Elisabeth J. Phelps
 County Extension Agent — Agriculture



Why Knot?

By Julia Loyall

Background

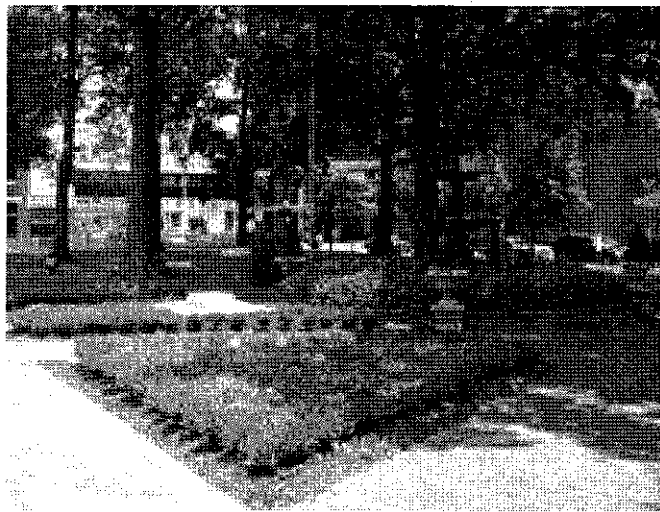
Current interest in herbal remedies and recipes has revived the beautiful and really practical knot garden as an ideal setting for herbs and flowers.

Knot gardens have a long and respected history. They were in vogue in the 16th and 17th centuries. Travelers to Islamic countries, Persia, Italy and France came back to Western Europe excited about impressive gardens structured with hedging plants in elaborate interwoven patterns. Wealthy merchants and landowners in England enthusiastically adopted these structured gardens, which they called "knot gardens". Italians called them "ricami", while the French used "parterre".

American settlers and pioneers raised only food and herbs for cooking and medicine in their gardens at first. However, as the nation prospered, plant lovers who could emulate the gardens of the countries they left behind. Many of our botanical gardens and large estates show examples of the knot garden tradition, as in Williamsburg and the

National Botanical Garden.

The knot garden provides a lasting structure sorely needed in vigorous herb and perennial gardens, where



The Old State House fountain garden is an example of a modified knot design.

the more delicate specimens are often eliminated by the aggressive ones in the plant world. Narrow ribbon-like lines of hedge follow the gardener's design of interlocking geometric shapes to form compartments for bulbs, herbs, flowers, topiary, statuary, mulch, gravel or whatever. Hedging material may be of any height, closely trimmed or informal, but must faithfully follow its definite pattern.

Traditionally, woody herbs are

Arkansas Is Our Campus

used for the hedges: germander, lavender, hyssop, artemisia, santolina, winter savory and thyme. Dwarf boxwoods or other dense, clippable dwarf shrubs are popular. Two colors of the same plant make the pattern more effective.

Theory

The closed knot garden has interlacing lines of hedge, often trimmed to appear to

cross each other. They may be alternately clipped higher and lower to seem to

See Knot Garden, continued on page 6

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Calendar And Notes

August

From July 31 through August 11, the Ridgeway Center at the Missouri Botanical Garden, (314) 577-5400, will feature a *waterlily exhibition*.

A workshop on *Organic Container Gardening* is scheduled at the Ozark Folk Center on August 4. Call (870) 269-3851 for registration information.

The Memphis Botanical Garden noontime talk on August 9 is on *Exotic Tropicals*. (901) 685-1566.

The *Plant Propagation Workshop* is scheduled for August 11 at the

On September 10 at 2 p.m., the *Arkansas Hosta Society* will meet at Christ Episcopal Church at 6th and Scott in Little Rock.

The program for the next *Pulaski County Master Gardener Meeting* on September 12, 11:30 a.m., (at the state extension office on University Avenue) will be Paige Shurgar of the Nature Conservancy.

The *Arkansas Orchid Society* will have a plant auction September 17. For information call (501) 922-3296.

There will be a *Native Plant Symposium* at the Ferndale 4-H Center in Little



Ozark Folk Center. Hands-on, from greenhouse to gardens. Intensive plant propagation and seed germination theory. Activities will be based on the current season in which the class takes place. Preregistration is required at (870) 269-3851.

The *Hot Springs Daylily Society* meets at 10 a.m. August 12 at the Garland County Library.

Lake Chicot State Park at Lake Village on August 11 - 13 will have *guided field trips to search for early migrants and rare birds*. Contact the park at (870) 265-5480.

The *Arkansas Unit of the Herb Society of America* meets at 10:30 a.m. August 17 at the Little Rock Garden Center.

September

There will be *sunset lake tours* September 1 - 30 at the Lake Chicot State Park. Lake Chicot is the largest natural oxbow lake in the nation: reservations are required. (870) 265-5480.

An *Organic Gardening Workshop* is scheduled for September 4 at the Ozark Folk Center. For registration information, call (870) 269-3851.

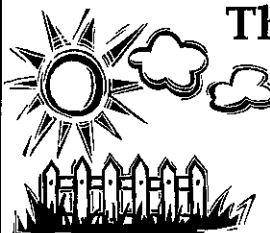
Rock on September 20. Registration information will be out soon. Check with Mrs. McKinney or Beth at

340-6650.

The *White County Daylily Society* will meet at 9:30 a.m. at the Century 21 building in Searcy on September 20.

2001

The *International Master Gardener Conference* will be held in Lake Buena Vista, Florida, May 29 - June 1. Contact Beth if you are interested in attending. If enough people are interested, we'll look into a group travel arrangement. 340-6650.



The more I hear
of horticulture,
the more I like
plain gardening.
~ Julian R. Meade

August Checklist For Master Gardeners

By Libby Thalheimer

Cut Backs

Cut back leggy annuals and fertilize. Disbud chrysanthemums and dahlias for specimen blooms. Shear browallia, torenia and verbena for rebloom. If your day-lilies, iris bluebells or Virginia d i d n ' t bloom well the last few years, divide them now through the end of September. Dig up the entire clump and remove soil from the roots to expose the crown. Pull plants apart by hand, or split with a sharp knife. Replant the about 12 to 18 inches apart.

Cut back and divide chives, sweet marjoram, mint, and oregano. Pot them and place in a sunny window for a winter supply.

Prune shrub roses to remove errant branches and direct new growth; do not prune climbers at this time.

Cut back perennials and peonies as they decline.

Cut red raspberry canes to the ground when they have finished fruiting.

Let your lawn grow about 2 1/2 inches tall during the hottest part of summer. Grass is under stress this time of year and needs the extra leaf surface for photosynthesis. The turf will stay thick enough to slow evaporation from soil.

Avoid pruning azaleas, forsythia and other spring-flowering shrubs now, because they are forming flower buds for next spring's displays.

Amendments

If the ground becomes dry, water an inch or two once a week. Regular watering keeps plants from overheating and from dehydrating. Insufficient watering can lead to even established plants' slow death.

Mulching plants at least three inches helps to retain moisture and to keep down weeds. When using any kind of insecticide, herbicide or fungicide, be sure plants to be treated contain plenty of moisture. If there is

not enough moisture in the plants, too much of the chemical may be absorbed, possibly damaging the plants.

Check container plants daily and water as needed.

Give spring-flowering ornamentals and warm-season grasses a light application of fertilizer. Fertilize roses with granular rose food or liquid formulations as recommended on the label. Fertilize chrysanthemums, dahlias, asters and other fall blooming plants now. Apply about 1 cup of liquid fertilizer or 1 tablespoon of granular 10-10-10 around the plant.

Dig In

You can plant a second crop of cosmos, marigolds, melampodium, sanvitalia, zinnias and zinnia linearis.

Plant oriental poppies and leave undisturbed.

Plant fall blooming bulbs now — crocus, colchicums, spider lilies.

For the fall garden, plant broccoli plants, cabbage plants, and cauliflower plants.

Take cuttings of geraniums, penstemons and begonias and plant or pot them.

Sow What

Sow seeds of dwarf basil and parsley directly into pots so you can have an indoor herb garden this winter.

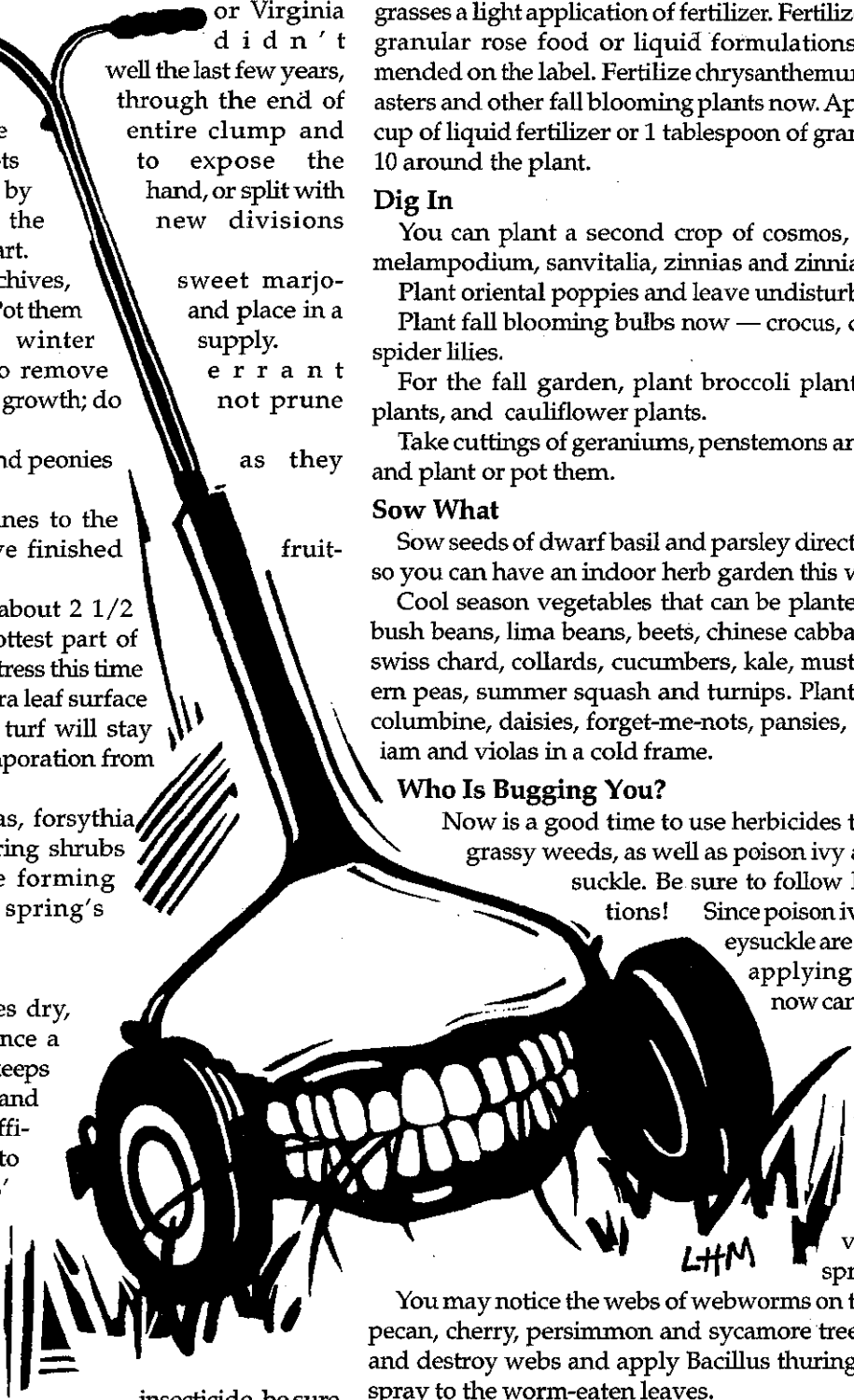
Cool season vegetables that can be planted now are: bush beans, lima beans, beets, chinese cabbage, carrots, swiss chard, collards, cucumbers, kale, mustard, southern peas, summer squash and turnips. Plant calendula, columbine, daisies, forget-me-nots, pansies, sweet william and violas in a cold frame.

Who Is Bugging You?

Now is a good time to use herbicides to get rid of grassy weeds, as well as poison ivy and honeysuckle. Be sure to follow label directions!

Since poison ivy and honeysuckle are perennials, applying Roundup now can keep them from storing up nutrients for winter and reduce the chance of their surviving until spring.

You may notice the webs of webworms on the limbs of pecan, cherry, persimmon and sycamore trees. Remove and destroy webs and apply Bacillus thuringiensis (BT) spray to the worm-eaten leaves.



LHM

What Works!

By Kathy Kohl

It's hot, it's dry — those dog days are upon us, and I'm not talking poodles!

It's A Water Thang

'Tis the time of year when a gardener's water bill takes a giant leap upward. If you are like me, no matter how often you change out the gaskets, you just can't get all the water hose connection leaks to stop. For a handy and economical remedy, pick up a roll of inexpensive Teflon plumber's tape and wrap the threads of the male connector ends. Works like a charm.

To beat the heat while working outdoors in these sweltering conditions, thoroughly wet a lightweight bath towel with cold water, wring it out and wear it around your neck like a collar to keep your body temperature down.

My personal favorite heat-beating technique is to work amid the sprinkler hoses while they are going full blast.

If watering shrubs and plants close to the foundation of your home causes water seepage into the basement or crawl space, use soaker hoses in your foundation beds.

Cut And Dried

We can enjoy these wonderful summer blooms all year by drying our flowers and storing them between layers of tissue paper in cardboard boxes in a cool, dry location. Then we can use them later for colorful wintertime flower arrangements.

Here are some helpful tips to keep in mind when drying flowers: Warm air drying generally provides a crisper appearance and more intense color. ... Cool air drying results in a softer look and more muted colors. ... Flowers should be picked on a dry day after the dew has evaporated. ... Choose flowers in the beginning stage of full bloom to prevent drooping when dried. ... Dry flowers away from bright light to avoid fading. ... Flowers are

ready to be stored when the stem is dry and rigid. ... Include a few sachets of moth crystals or other moth repellent in storage boxes to prevent insect damage to these delicate flowers.

More Good Ideas

Those pesky ants invading your hummingbird feeders looking for a sweet drink of water? Grease or oil about a 2 inch length of the cord or chain your feeder is hanging from to create an impassable slippery slope.

Ever forget to wear your gloves when seeding those hot peppers? For immediate relief, soak hands in a miracle solution made with 1 to 2 teaspoons of instant tea to 1 pint of cool water.

African violets don't like for their leaves to touch clay pot edges — this can damage or kill the leaves. Cover the edges of the pots with duct tape, and this will protect the delicate leaves, which will then grow to drape over the edges, hiding the tape.

Poke salad seems to be a fact of life in these parts. If you don't like to eat it, you can still put this nuisance volunteer to good use. Boil the leaves, strain off the liquid and use in a sprayer bottle as a repellent for aphids.

By The Light Of The Moon

The Farmer's Almanac suggests the following August dates for maximizing your results:

Plant root crops August 16, 17, 25, 26

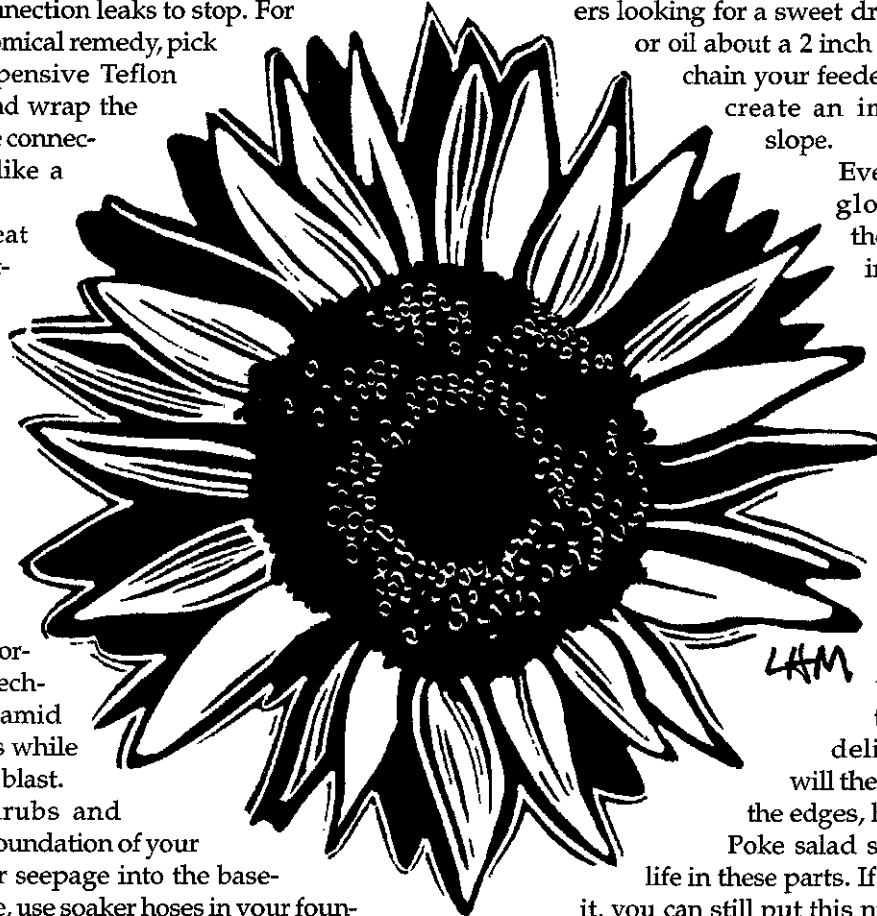
Plant above ground crops August 6, 7

Prune to encourage growth August 8, 9

Prune to discourage growth August 18, 19, 27

Until We Meet Again

Stay cool brother and sister gardeners and keep those ideas and pearls coming my way. You can reach me as follows: (e-mail) kkohl2@juno.com; (phone) 376-4552; (U.S. Mail) P. O. Box 250524, Little Rock, AR 72225. *



Collect Your Own Seeds

By Carl Goodson

This is the time of the year to begin thinking about next year's gardens. Whether your interest is vegetables or flowers, you will naturally think of the ones that did well in your garden, or that you like most. And those varieties may be propagated with the seeds that are ripening this time of year.

Selectivity is the key word. You will not want to save and plant seeds of undesirable kinds. You need to avoid those that you planted this year from hybrid seed. They will not produce plants like the ones that you thought were great this year. They have a planned genetic background that is designed to produce well with a minimum of disease and infestation. But the seeds that they produce most likely will not reproduce in kind.

Seeds that are from "heirloom" varieties, or from varieties that you want to become "heirloom" varieties, are what you want to select. Another word to describe them is "open-pollinated". That is, the best seeds for next year's gardens come from blossoms and seed pods that have been fertilized by bees and other flying pollinators. What they have done is to bring genetic material from other plants nearby, and have strengthened the vitality of the next generation of plants.

Selectivity in practice means that you are looking for the varieties that bloomed and set on seed pods productively. So begin the process by looking for the following:

1. Seed pods or flower heads that have shed their blossoms or have dried up blossoms.

2. Pods that are ripe, signaled by the fact that they are turning yellow or brown.

3. Pods that are full of seeds. Sometimes this is a ripe fruit that has the qualities you want, and you can sacrifice the fruit itself to gain the seeds.

4. One variety at a time. Gather in a clean container, and label your container with the name of the variety and the color or quality that is desirable. On the label include the date collected.

From now til after frost you can be watching for specimens to bring in and save their seed. During this collecting season you will want to do the following:

1. Dry the seed pod thoroughly. In the case of fruit, remove the seeds and let seeds and pulp dry thoroughly.

2. Separate the seeds from the pods, pulp, spent blossoms, leaves, and stems. Depending on the size of the seed, this can be done by sifting, or by blowing the unwanted dry material gently away.

3. Dry again, to make sure that, when packed away, the seeds will be in a dry environment.

4. Put dry seeds into an air-tight container along with their label. A small amount of silica gel will provide more insurance that the seeds will stay dry. Store the container in a cool (but not freezing), dark storage area.

5. Well in advance of the next planting season, test the germination of your seeds. In wet paper towels, count out a convenient number of seeds in multiples of ten. Keep the medium wet, warm, and light for a reasonable time. Then count the number of seeds that have begun to germinate. If eight out of ten have germinated, you

have an 80% chance of getting your seeds to come up after planting in the garden.

Some vegetables

that you may want to save seed from: okra, beans, peppers, corn, collards, tomatoes, cucumbers, squash, gourds and melons.

Herbs that are well worth the effort: dill, basil and fennel. Seeds in this group also may be collected to be used in cooking.

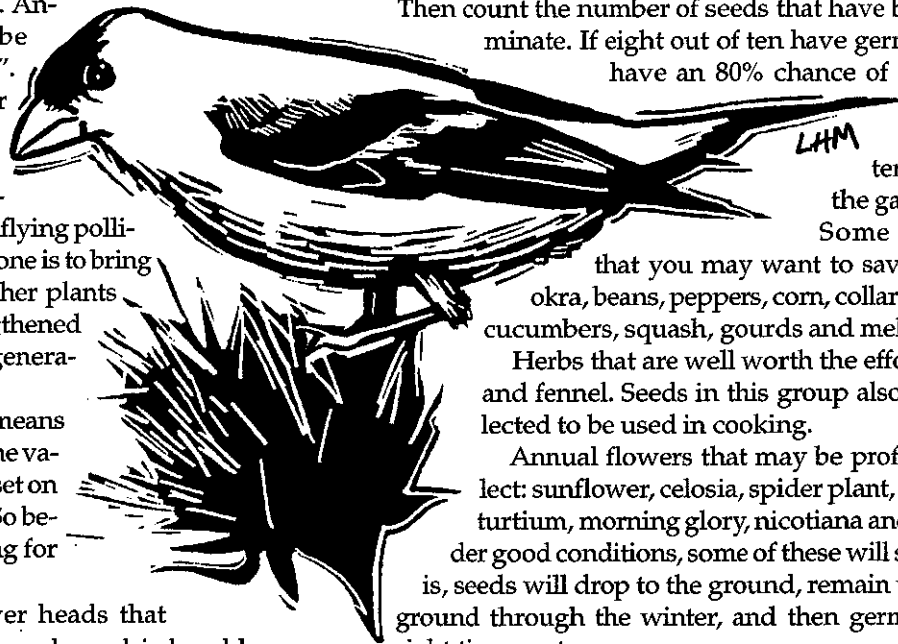
Annual flowers that may be profitable to collect: sunflower, celosia, spider plant, cosmos, nasturtium, morning glory, nicotiana and zinnia. Under good conditions, some of these will self-sow; that is, seeds will drop to the ground, remain viable on the ground through the winter, and then germinate at the right time next year.

Perennial flowers are usually propagated by root division, layering, or rooted cuttings. But some are easily propagated from saved seed, such as: shasta daisies, cone flowers, butterfly weed, lantana, hosta, hibiscus, sweet peas and coreopsis.

One reason for collecting seed is to save the expense of rebuying seed year after year. When time is more valuable, you may decide to collect few seeds and buy most.

Another reason for collecting seed is that you can exchange favorite varieties with other gardeners. There are clubs that have established nationwide networks of exchange, especially of the "heirloom" varieties.

But the main reason to preserve seed is that you know the variety and you want to preserve its existence. *



weave over and under each other. Access to the compartments is only from their perimeter. The most popular closed knot garden pattern has the "True Lover's Knot", two links of a chain crossed and interwoven with a circle in a never-ending line to symbolize unending love.

In the open knot garden, lines of hedge do not intersect. One can move within the sections to reach the herbs and flowers, and the open know holds more plants.

In both types, the entire garden may be bordered with paths or hedge or both. Paths or walks lead to a focal point — a bench, pool, sundial, tree, garden sculpture, arbor — that is the choice of the designer. These gardens may be as large or small, formal or informal as the planner intends.

Planning is all-important. Measure the area. Make a scale drawing on grid paper. Draw the basic design of geometric shapes which the ribbon of hedge will follow. Show the walkways and focal point. Landscape books provide great knot garden designs. The garden should be placed where the pattern can be viewed from above — a window, patio, deck.

Practical Considerations

Obtain all the hedging materials you will use at the same time from the same place, or have cuttings ready to plant.

Clear turf off the area. Level and smooth the ground. Lay out your design, perimeter first, using a tape measure, sticks and string. Mark lines clearly with lime or chalk. (The top half of a plastic bottle makes a good line-marking funnel.)

To construct a circle: mark out a square first, mark its diagonals with string or lime to find the center, and place a long nail or stick in the center. Attach string to the nail and to the neck of the funnel and walk the funnel around just inside the perimeter of the square, marking the circle as you go.

Draw any arcs as part of a circle. An oval can be made from two semicircles with a rectangle between.

Plant your hedge material, carefully following your markings. Water faithfully until plants are established.

In two years, late spring cuttings should make a continuous low hedge. Little container plants set 12 inches apart become a low bushy hedge by the next fall. Setting them 8 inches apart results in a faster fill-in. If they become too crowded, transplant alternate plants elsewhere. In late summer, plant cuttings directly in the garden.

Plant extra cuttings in a pot in case plants are lost over winter, so replacements will match the originals.

Trim hard in the early spring. Keep clipping tops to

encourage bushy growth. To avoid low dieback, slope trimming outward toward the plant base so lower plant branches receive more sun. Herbal hedges grow fast but may need replacement after four or five years. Their clippings make potpourri or sachet!

From extra copies of your knot design, draw to scale the plant map for the herbs and/or flowers you will plant in the compartments of the garden, allowing room for growth, harvesting, and trimming around them and the hedge ribbons. Containerize, or do not use, invasive plants like mint or soapwort.

Complete the garden at once or at will. The project can be inexpensive if you use cuttings and raise your herbs

from seed. Shepherd's in North Carolina can provide herb seeds and plants not available locally, as can other catalog sources. Master Gardeners and other friends at local nurseries will also help.

Local Gardens Which Use Knot Garden Features

The Old State House has 'Wintergreen' boxwood borders around four wedge-shaped beds

of rose-pink impatiens, which radiate from that fabulous fountain. Stepping stones and walkways border the fountain. Four tall urns with trailing ivy and little spruce trees finish the picture. Master Gardeners take a bow, especially Bettye Jane Daugherty, who designed the layout.

The School for the Blind garden uses herbs with a variety of scents and textures for the students to study and enjoy. The sunken oval garden has an outer hedge and walkway, with fine brick planters which form figure eight patterns around the lower oval. Brick steps take the children down where they can touch the herbs and read the braille labels comfortably. The focal point is a fish pond. Our Betty Pagan made the plant design for this open knot garden maintained by the Herb Society.

The County Extension Office on Roosevelt Road (see photo) is proud of the open knot herb garden Betty designed and her team of Master Gardeners maintains. The plan has inner ovals north and south, with stepping stones east to west.

'China Doll' roses accent the sides, and 'Minimum' thyme around the stones doesn't mind footsteps. Mounding 'Mother-of-Thyme' borders the center of the oval, which has mainly colorful ornamental herbs. The south oval has a maple tree and perky viola border around culinary herbs. On the north, low-growing nandinas visible from the street are accented with 'Powis Castle' artemisia.



The Pulaski County Extension Office open knot herb garden

Project Highlights: A Monthly Article Featuring A Pulaski County Master Garden

The Old Mill

By Gena Norris

Having grown up with The Old Mill as a playground, I thought writing about this Master Gardener Project would be very easy. However, I find myself at a loss of words to describe the grounds. Words such as beautiful, lovely, amazing? The garden is all of those things, but so are other gardens. Those words are inadequate for my descriptive needs.

How do I describe a project where plantings and native plants look so natural that it appears as if they all just grew there on their own, because it was the best place to grow?

Native trees, which are marked with plaques, include several varieties of oak, eastern redbuds, black and water locust and dogwoods. Completing the canopy are cedar and althea that are 20 feet tall.

The garden areas are so continuous they give the illusion of one large garden. Each area has its own unique needs that have been addressed with a variety of plants.

On each walk I've taken through the grounds, I always spot a new variety of plant that I hadn't noticed before. Many gardens have cannas, but nowhere else have I seen

the variety with green and yellow striped leaves, which give so much color and texture to this garden. The butterfly bushes and oakleaf hydrangea are thriving and loaded with blooms. The pond with the water hyacinth

must be filled with Miracle Gro, because the hyacinths are huge — with purple blooms almost a foot tall!

There are very easily 100 different plants types. I always spot a few that I must come home and look up.

One I haven't been able to identify is what I call the "mystery peanut butter" plant. It has fronds growing from a single stalk that is green and later turns woody.

Each frond has from 20 to 40 leaflets. When rubbed, this plant smells just like peanut butter! [Beth calls it the What Is It? If anyone knows, please enlighten us!]

Even in the heat of summer, The Old Mill garden offers a cool (or maybe less hot!) oasis to rest, relax and enjoy the surroundings.

Please take time to visit this treasure, which is open daily until dusk. You'll be glad you stopped by! *

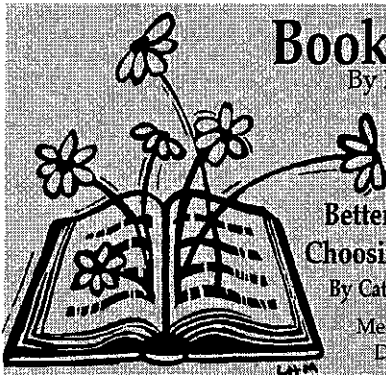


Book Review

By Ellen Rouch

Better Homes and Gardens Choosing Plant Combinations

By Cathy Wilkinson Barash, Editor
Meredith Publishing Group
Des Moines, Iowa, 1999



The colorful cover on this book caught my eye when I was in the bookstore. As I picked it up, I noticed that each page had bright, up-close demonstrations of garden suggestions. The basic premise of the book is that of designing gardens by the use of vignettes — combinations of two, three, four or more plants. Each grouping is an individual aesthetic statement, as well as being a vital component of the entire garden. Barash focuses her work on demonstrating how color, shape and texture work in all sorts of plant groupings. She also compares garden design to the artist's design

and development in composing a painting.

The book is composed of six chapters. The first chapter deals with single and monochromatic color schemes. The book lists the scheme, such as luminescent white at night, lists sample flowers, and then shows a large photo of the garden. The second chapter deals with subtle color combinations. This type of garden is reminiscent of English cottage gardens. There are traditional pairings, such as pink and blue, yellow and silver, as well as nontraditional pairings. There are several cool color combinations, as well as wildflower combinations. Ms. Barash has an arrangement using a drift of one under this category. The third chapter focuses on bright, bold colors such as fuchsia pink, lemon yellow, cherry red, pumpkin orange, and chartreuse. The photographs are particularly helpful in this section. Barash does recommend toning down the bright colors by utilizing some plants with an abundance of green foliage.

The remaining three chapters of the book deal with different forms in the garden. Again, the first part is on single forms. Examples are: heart-shaped, pointy, horizontal and vertical leaves, and flat tops. The second portion concentrates on subtle forms. Examples are: adding grace with

See Book Review, continued on page 9

Master Gardener Alert

Nominating Committee Report

Following is the Nominating Committee's slate of officers for 2001:

President — Suellen Roberts

1st Vice President — Jane Druff

2nd Vice President — Lou Sanders

Secretary — Sandy Harrison

Treasurer — John Prather

This slate will be presented to the membership at the September meeting, at which time we will vote.

MG Training Schedule

All sessions will be on Wednesdays at the State Extension Office on South University.

September 27 — Tour of Master Gardener Projects

October 4 — Basic Plant Science, Soils and Pesticide Safety

October 11 — Fruit Crops

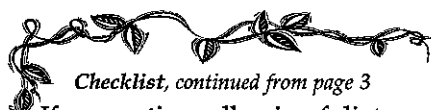
October 18 — Vegetable Crops

October 25 — Ornamentals

November 1 — Pruning, Insects and Diseases

November 8 — Turfgrass and Graduation

Experienced Master Gardeners are welcome to attend any of the training sessions. If you plan to attend and eat lunch, please call Mrs. McKinney or Beth, 340-6650, by noon on the Monday before the Wednesday you'll be attending. Lunch is \$6.00. *



Checklist, continued from page 3

If you notice yellowing foliage on azaleas, pyracantha, cotoneaster or hawthorn, check for lace bugs. Black dots of excrement on the underside of leaves are a sure sign of their presence, as is a white, mottled appearance on the tops of the leaves. To control, spray with insecticidal soap or malathion, according to directions.

If your roses are vulnerable to leaf diseases, continue regular sprays of Funginex or Beniate to prevent infection. Be sure to follow label directions exactly.

August Blooms

Ageratum, althea, anise mint, asclepias, asters, balsam, bellamcanda,
Continued on next column

Dig In Here ...

Does a gardening/horticultural problem have you stumped? These resources can help you solve nearly any gardening dilemma:

Pulaski County Cooperative Extension Service Office

2901 West Roosevelt Road
Little Rock, Arkansas 72204
340-6650
bphelps@uaex.edu

Arkansas Cooperative Extension Service Office

2301 South University
Little Rock, Arkansas 72204
671-2000

Pul. Co. Horticultural Hotline

340-6660

University of Arkansas Cooperative Extension Service Website: <http://www.uaex.edu>

Checklist, continued from previous column

browallia, buddleia, callicarpi, campsis, cannas, celosia, clematis, cleome, clerodendron, clethra alnifolia, crape myrtle, crotalaria, dahlias, datura, echevera, echinacea, eupatorium, feverfew, four-o'clocks, funkia, garlic, gaura, gladioli, fountain grasses, hibiscus, hosta, hydrangea, hyssop, ironweed, kerria, lantana, liatris, linaria, lobelia, lycoris squamigera, marigolds, marjoram, miscanthus, mints, monarda, mondo grass, montbretia, nicotiana, oxalis, pennisetums, phlox, physostegia, portulaca, roses, rosemary, rudbeckia, salvias, snow-on-the-mountain, spirea, tamarisk, tansy, thyme, torenia, tuberoses, turtleheads, veronicas, vinca, pink zephyranthes lilies, and zinnias. *

Book Review, continued from page 7

grass, putting flowers adrift on a silver sea, adding foil flowers with curly leaves, and piecing together circles and ovals. The last chapter deals with bold shapes. Examples are using textures overlaying each other like water colors, allowing two or three ground covers to duke it out over the territorial boundaries, combining evergreens with exotics, and knowing when to stop. The book also contains an appendix, which lists characteristics of each plant mentioned in the book, and information on the hardiness zones is included. *

Spread The News!

If you have an item of interest or a newsworthy photo, or need to tell the general membership something about your committee, this newsletter is your opportunity to reach all Pulaski County Master Gardeners.

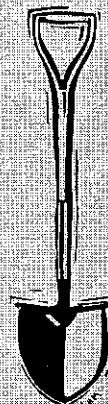
Please provide your information to us by the second Tuesday of August to see your message in the September issue of the newsletter.

You may send your information to: Beth Phelps, Pulaski County Cooperative Extension Office, 2901 West Roosevelt Rd., Little Rock, AR 72204, 340-6650, bphelps@uaex.edu; Mrs. McKinney, 340-6650; Rose Hogan, 374-9429, rhogan@aristotle.net; or Cheryl Kennedy, 753-8192, fax 753-6305, and inthegarden@aristotle.net.

If you have late-breaking news unavailable by the closing date, Beth may be able to add it to her letter that is mailed with the newsletter. *

Master Minutes Staff — 2000

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	Libby Thalheimer
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	Laura Anne Wilson
	Lynne Woods
	Frances Young



Pulaski County Master Gardener Volunteers are trained volunteers working with the University of Arkansas Cooperative Extension Service and Pulaski County Government to provide demonstration gardens and horticulture-related information to the residents of the county. In 1999, these volunteers gave more than 7,000 hours of service.

Elisabeth J. Phelps
County Extension Agent — Agriculture



The Artichoke — An Unusual Perennial Vegetable

By Carl Goodson

Not often grown in Arkansas, artichokes, *Cynara cardunculus*, have possibilities for those who like to try the unusual plants and have the time and space for them. They can be grown in the perennial part of the vegetable garden, among perennial herbs, or in the flower border.

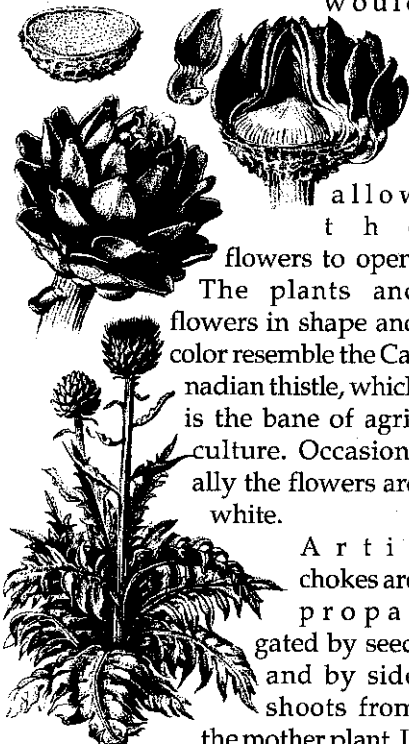
They are not related to the Jerusalem artichoke, *Helianthus tuberosus*, of the sunflower family. They each have different growth habits and they do not look at all alike. The Jerusalem artichoke has a tall stem with leaves climbing up, and usually a single flower at the top. Globe artichokes, have long, lacy leaves that are somewhat spiny, growing from the base of the plant. The Jerusalem artichoke dies down to the ground in winter, but the globe stays leafy and green in Arkansas through cold weather.

Artichokes were grown and eaten by Greeks and Romans. Their place of origin is southern Europe. The name comes to us from Arabic through Spanish. The plants are cultivated in California.

In recent years, following the discovery of cynarin, an important ingredient, the leaves have entered the herb market as a medicinal herb. They have important qualities in the stimulation of liver and gall bladder function. Lower cholesterol is also

claimed for them.

They are perennial. They take a long growing season to produce the "globes" that give them their fuller name, globe artichokes. More time would



allow the flowers to open. The plants and flowers in shape and color resemble the Canadian thistle, which is the bane of agriculture. Occasionally the flowers are white.

Artichokes are propagated by seed and by side shoots from the mother plant. If your herb source can supply plants, you will get a running start, and the plants may produce the desired globes or flower heads in the first season. Otherwise you will have to grow plants from seeds, a tricky business.


Plant in well prepared, friable soil that gives a neutral pH test. Adequate water and plenty of sunshine will make them flourish. A mulch of straw or compost will keep weeds down.

As vegetables, they grow a flower head about the size of a human fist. Well before they bloom, the globe, or flower buds, are harvested. Boiled in lightly salted water, they may be eaten hot with hollandaise sauce. They may be fried, or included in a casserole. Cold, they may be eaten

with a vinaigrette. The taste is not like any other vegetable, so it would be for some an acquired taste. If the globe stays too long on the plant, the side leaves

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MASTER GARDENER

See *Artichoke*, continued on page 7

Arkansas Is Our Campus

September Master Gardener Calendar And Notes

September

Sunset lake tours September 1-30 on Lake Chicot, the largest natural oxbow lake in the nation. Call Lake Chicot State Park for reservations, (870) 265-5480.

The Missouri Botanical Garden's 24th Annual Japanese Festival, "The Spirit in Stone," is September 2-4. This year the festival celebrates Japan's enduring traditions and civilization, as exemplified in the spirit of the stones, a vital element of the Japanese garden. The MBG's Seiwa-en, the largest authentic Japanese garden in North America, makes St. Louis the perfect place for this festival. For information, call (800) 642-8842.

The Ozark Folk Center has scheduled an *Organic Gardening Workshop* for September 4. For registration information, call (870) 269-3851.

On September 10 at 2 p.m., the *Arkansas Hosta Society* will meet at the Christ Episcopal Church at 6th and Scott in Little Rock.

The speaker for the September 12 *Pulaski County Master Gardener Meeting* will be Paige Shurgar of the Nature Conservancy. It will be held at 11:30 a.m. at the State Extension Office on University Avenue.

The Missouri Botanical Garden's *Fall Plant and Bulb Sale* is September 15-17 at the Ridgway Center. Many plant varieties for fall planting, including ornamental grasses, ferns, bulbs, colorful perennials and annuals, trees and shrubs. Friday hours are 9 a.m. to 6 p.m. Saturday and Sunday hours are 9 a.m. to 5 p.m.

Saturday, September 16, at 10 a.m., the *Arkansas African Violet Association* will meet at the Amy Sanders Library in Sherwood. For more information call 982-6011.

The *Arkansas Orchid Society* will have a plant auction September 17. For information call (501) 922-3296.

There will be a *Native Plant Symposium* at the Ferndale 4-H Center in Little Rock on September 20. Reg-

istration information will be out soon. Check with Mrs. McKinney or Beth at 340-6650.

The *White County Daylily Society* will meet at 9:30 a.m. at the Century 21 building in Searcy on September 20.

October

The Hobby Greenhouse Association invites you to register for the *HGA 2000 National Convention* to be held in St. Louis, Missouri, during the weekend of October 6-7, 2000. For more information, visit the HGA Convention 2000 homepage at <http://www.ultraweb.net/~jarvis/gha-conv.htm>, or call (217) 728-7808. A highlight of the gathering is a trip to the Missouri Botanical Garden.

On the weekend of the convention, the Botanical Garden will hold its "Best of Missouri Market". This event includes country stands filled with Missouri farmer and food producers' harvests.

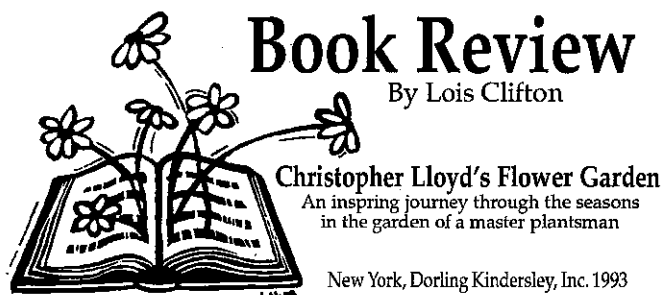
The *Pulaski County Master Gardener meeting* will be October 10 at 11:30 a.m. at the State Extension Office.

Pulaski County Master Gardeners will take a Fall Foliage Tour October 26-27. For complete information, see the Master Gardener Alert on page 8 of this issue.

An all day forum, "Therapeutic Gardens: From Theory to Implementation", will bring together academicians and practitioners to present and discuss the role therapeutic gardens play in enriching people's lives. This will be October 27 at the Missouri Botanical Garden in conjunction with the American Society of Landscape Architects' meeting. For information, call (202) 898-2444.

2001

The *International Master Gardener Conference* will be held in Lake Buena Vista, Florida, May 29-June 1. See the Master Gardener Alert on page 8 of this issue for more information. *



This book describes many aspects of Christopher Lloyd's garden in fair detail. His garden, Great Dixter, is a 15th-century, half-timber manor in England. Christopher Lloyd was born at there in 1921 and has lived there all his life. Though to the manor born, he still had to make a living. He did this by starting a nursery for less usual plants. The house and gardens are open to the public six afternoons a week from April to October, so it is natural for visitors to want plants they have just seen. Also, Lloyd

has written other books on gardening.

Flower Garden is a beautiful book to look through. Every page has at least two pictures and every third (or more) page is a full page color photo, which Lloyd explains in detail. The author begins with spring and covers each season, explaining the flowers, their architectural setting, the use of walls, steps, paths, sunken gardens, structural shrubs and biennial display. Lloyd tells of high summer color, the virtues of self-sowers and using roses and hydrangeas. He talks of the pond, annuals ferns, and bedding without beds, as well as using pots and sinks. Lloyd gives autumn highlights, the use and advantage of walls, ornamental grasses and perennial asters. He explains the winter scene and the impact of bamboo and topiary. The index lists the hundreds of flowers included in the book so you can read about each and see its picture. This is a very informative, interesting and well planned book — one you will enjoy reading. *

Master Gardener Checklist For September

By Libby Thalheimer

Cutting Class

Light pruning (heading off) of evergreens can be done at any time. Don't prune your spring blooming plants at this time. Avoid heavy pruning of others, also, or they may not have time to harden off before frost.

Cuttings of perennials, such as phlox and shasta daisies, may be rooted at this time.

When it's cooler, rejuvenate tired annuals by removing faded flowers and cutting back long, leggy stems. If they are too far gone, pull them out and replace with new fall annuals.

Continue deadheading buddelias, perennials and zinnias. Continue disbudding dahlias and large flowered chrysanthemums. Cut back poinsettias to the desired height; leave three or four leaves per stem. Collect seeds from annuals and perennials and store them in the refrigerator.

Remove the green tops when harvesting carrots, parsnips, turnips, radishes, etc., and leave on top of the soil to make fresh green manure, or add to the compost heap.

Dig In

The first half of September is the ideal time to plant cress, kale, lettuce, mustard, radishes, spinach and turnips for fall harvest. Cress matures in two to three weeks, leaf lettuce and spinach in six weeks, mustard in four to five weeks, and radishes three to four weeks.

Plant mum and aster varieties that bloom at different times during the season.

Set out fall flowering bulbs immediately: colchicums, crocuses, baby cyclamen and white swamp lilies.

Sow annual *Schizanthus pinnatus* (butterfly flower) indoors in sunny pots. It will bloom in March.

Bring in a pot of chives for the winter.

For a fragrant surprise in late autumn, plant paperwhite narcissus outdoors now.

For the best selection, buy spring flowering bulbs by mid-month. Select firm bulbs with no signs of mold. Store in a cool, dry location until ready to plant in late September through November.

Plant perennial herbs now: lemon balm, cloves of garlic, oregano, sage, thyme, winter savory and witch hazel. Transplant hollyhocks. Transplant seedlings in a cold frame early in the month to have sturdy plants for the garden later. Carry over late planted columbine and

sweet william in the cold frame through the winter.

Divide and Multiply

Dig, divide and replant iris if overcrowded. Make sure each 2-4 inch division contains a part of the rhizome, some roots and foliage. Cut foliage back to about six inches and replant not more than two inches deep, in well-prepared soil.

You can still divide overcrowded daffodils, daylilies, lilacs, and Madonna lilies as well. Carefully dig and lift clumps and break apart. Coneflowers, yarrow, pinks, lambs ear, phlox and many other spreading or clumping perennials can be similarly divided.

Mid-September through October is the ideal time to divide and replant peonies. Herbaceous crowns are set 1-2 inches below soil level; tree peonies at 4-7 inches deep.

Extra care should be taken to insure correct planting depth, as it greatly affects bloom performance. Mulch is also important the first winter after division to prevent their heaving out of the ground.

Fertile Ground

Whether it's organic, or combined organic and chemical, St. Augustine, bermudas and zoysias need one more application in early September of 3-1-2 fertilizer to be healthy and cold tolerant during the winter. Cool season grasses, i.e., fescue, need a complete fertilizer (1-1-1, or 1-2-1) in mid September.

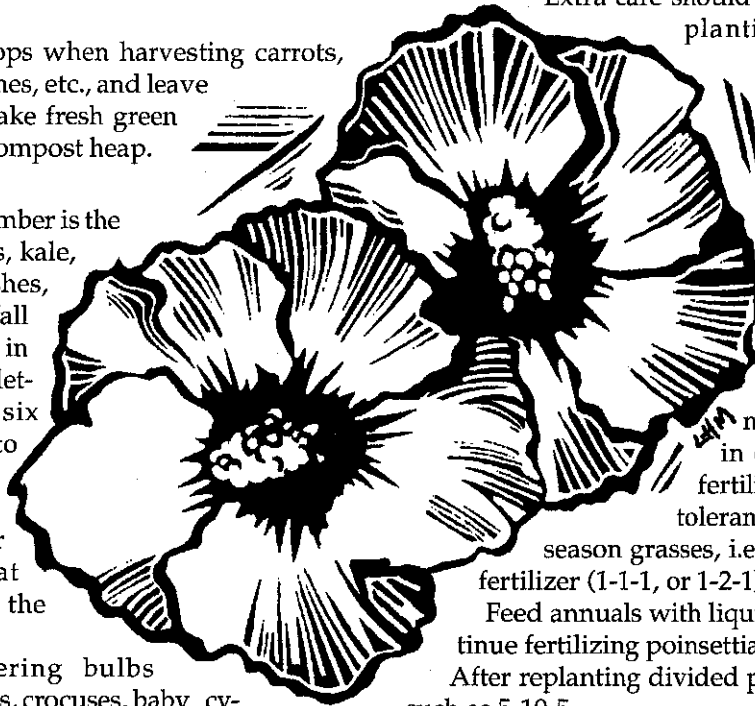
Feed annuals with liquid 20-20-20 fertilizer. Continue fertilizing poinsettias through December 1. After replanting divided perennials, apply fertilizer such as 5-10-5.

Do not use only chemical fertilizers over a period of time without adding humus to your garden. All living, breathing organisms in your soil can be burned up by the chemicals alone.

Remember that compost is one of the most effective fertilizers and soil conditioners in existence. If you haven't already done so, make plans to add composting to your list of gardening chores. Ideally, a spadeful of compost would be added to each square yard of garden surface every two weeks, from spring to fall.

Who's Bugging You?

Apply Roundup now to keep poison ivy, poison oak, or poison sumac from storing up nutrients for winter, and



What Works!

By Kathy Kohl

Time to refocus and start thinking cool weather, flannel shirts and lots and lots of yard cleanup!

Perennially Speaking

I love the following tidbit: To get added benefits from your perennials, don't cut them back until spring. Leave the dried foliage and stems to add color, texture and shape to an otherwise bleak winter landscape; birds and wildlife will eat the seeds and the insects wintering in the stems; and *if we* get some of that white winter stuff, it will collect on the stems, insulating root systems and bulbs from the extreme cold.

And don't forget to include them in your Halloween decorations and string the particularly interesting ones with light at Christmas to make your own artistic statement.

Can't Tarp This

No two ways about it, tarps save cleanup time in the yard and garden. When you prune a shrub or tree, spread a tarp beforehand where it will catch the trimmings. Bundling and hauling to the brush pile becomes a snap, saving time and energy.

Have a small tarp spread out where it is handy to pile on the dug soil. After replacing the soil around plant roots, it is easy enough to just dump the excess where you want it, saving the need to rake the lawn when you are done.

Chili Today And Chili Again Tomorrow

Those red chili peppers certainly add an ornamental touch to our gardens and usually bless us with more red-hot chili peppers than any reasonable person can ever use. I have dried chilies, frozen chilies, chili pepper sauce ... well, you all know what I mean.

Chilies make a great garden spray and there are

numerous recipes available.

But a new one for me is a do-it-yourself tear gas made from chilies. This is the perfect take-along for joggers or anyone who feels vulnerable in the creepier corners of this world we live in. Steep a few chili pods in a cup of water, strain and load a water pistol. Pretty handy.

Amal Naj, author of *Peppers: A Story of Hot Pursuits*, tells us that historically chilies have been linked to amorousness. He provided recipes which I'll just summarize by saying that it would seem there is a never-ending array of uses for the perky little chili pepper.

ETC.

Save those old worn-out fitted sheets to use over plants on those crispy cold nights when foliage is at risk. A fall crop

of snap beans can keep producing well into the season if protected at night this way.

Coffee grounds are effective at stopping the growth of fungus, so include them in your compost or just sprinkle around the base of your shrubs.

Empty Parmesan cheese shakers make great containers for applying things like fertilizers and insecticidal powders in the garden; use the smaller spice containers for small seeds.

OOPS!

Last month I passed on a tip using instant tea and water to cool down burning skin caused by peppers. I guess my glasses were dirty because I gave you the wrong proportions. It is 2-3 *tablespoons* of tea to a *cup* of water.

By The Light Of The Moon

The *Planting Guide* suggests the following September dates for maximizing your results:

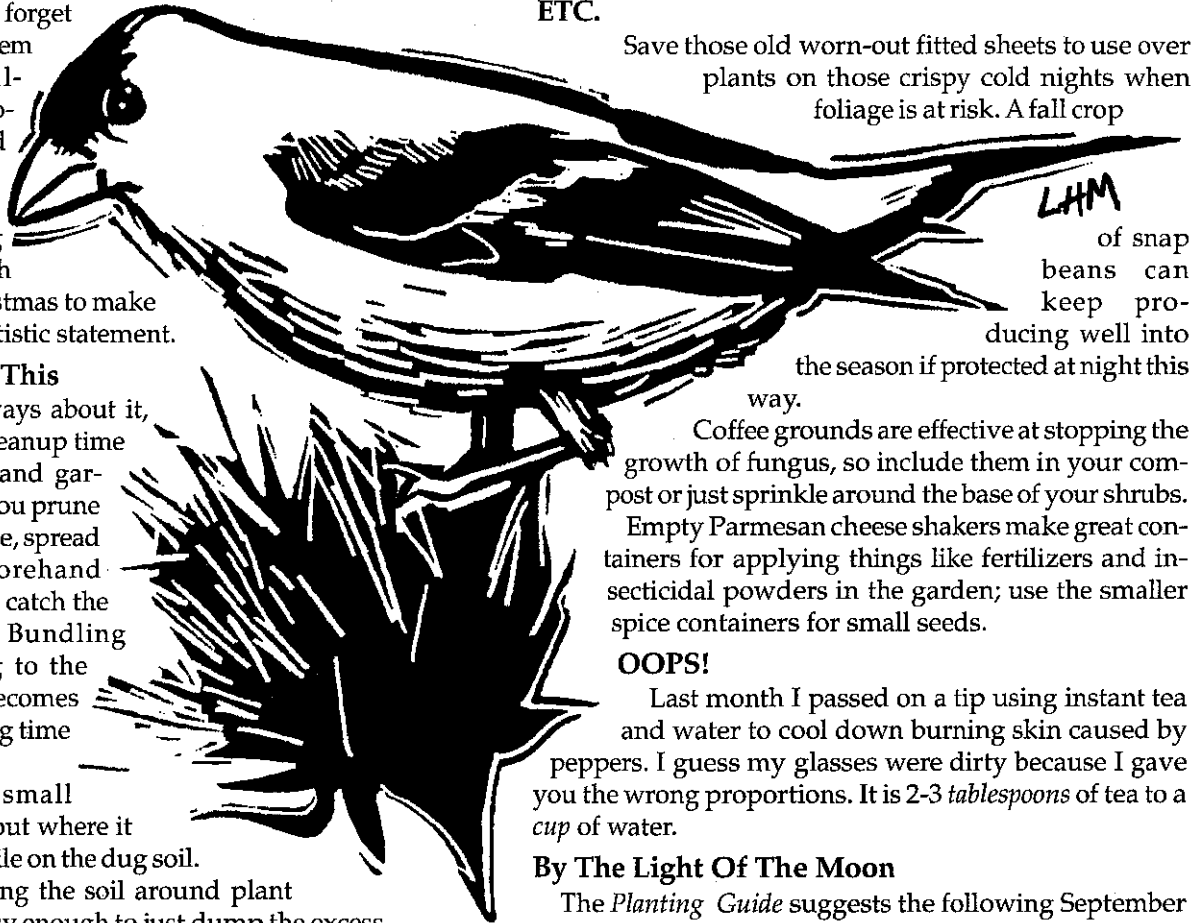
Plant root crops September 13 - 26

Plant aboveground crops September 1 - 12, 27 - 30

Pruning September 8, 19, 20, 23

Until We Meet Again

Keep those ideas and pearls coming my way. You can reach me as follows: (e-mail) kkohl2@juno.com; (phone) 376-4552; (U.S.Mail) P.O. Box 250524, Little Rock, AR 72225.



Project Highlights: A Monthly Article Featuring A Pulaski County Master Garden

The Greenhouse

By Gena Norris

I love greenhouses. I have, for as long as I can remember. Some of my best childhood memories are of spending hours walking through the acres of greenhouses at the old Vestal's Nursery in North Little Rock. The smell of the soil and the feel of the humidity must combine to stir some need in me to dig in the dirt — because I've been digging in the dirt since I was little, too! If you love greenhouses, you know what I'm talking about. If you don't, then there is no way to explain it.

The Master Gardeners assigned to the Greenhouse Project must have this feeling. If they didn't, they could not accomplish the daily tasks they face. Yes, I said daily! The Greenhouse is one project that requires vigilance.

In early September, the Greenhouse will receive approximately 10,000 annual and perennial starts. The starts are shipped in 11" x 22" flats containing around 250 plants each.

Within two days, the MG's will have transplanted the starts into six-packs and four-inch pots. At that time, the nurturing begins, which includes daily watering and attention.

Six weeks later, voila! We all have the plants we need for our projects and the rest are available to MG's at the Greenhouse's fall sale.

Lois Corley is the chair of the Greenhouse Committee. A few minutes' conversation with her and you will come away with excitement and great expectations over this year's plant order. Personally, I can't wait for the sale! The order includes:

Pyrethrum — 'James Kelway' — will grow to 28" tall with large red blooms.

Two types of *Digitalis* (Foxglove) — Alga and Foxy.

Gaillardia — 'Golden Goblin' — is another showy addition that also grows to a tall 22 inches.

Rudbeckia (Indian Summer) has large blooms 6" - 9" across.

Scabiosa (Fama) — will be lilac blue.

Balloon Flower — the blue, open faced variety of

Platycodon.

Campanula 'Blue Chips' — 2 feet tall and very showy.

Pansy - 'Majestic Giant', 'Crystal Bowl' and 'Ultima' (a new dwarf variety) are ordered in a variety of colors including: purple, white, yellow, true blue, violet with a face, purple and white, and bronze.

Viola — 'Blue Heaven', 'Blueberry Cream', 'Yellow Delight', 'Velour Blue' and Black.

Oriental Poppy — 'Allegro'

Potting Soil - Bags of rich, moisture retaining, fertilizer enriched soil will also be available.

Thanks to the Greenhouse, we can plan many colorful additions to both our MG Projects and our home gardens.

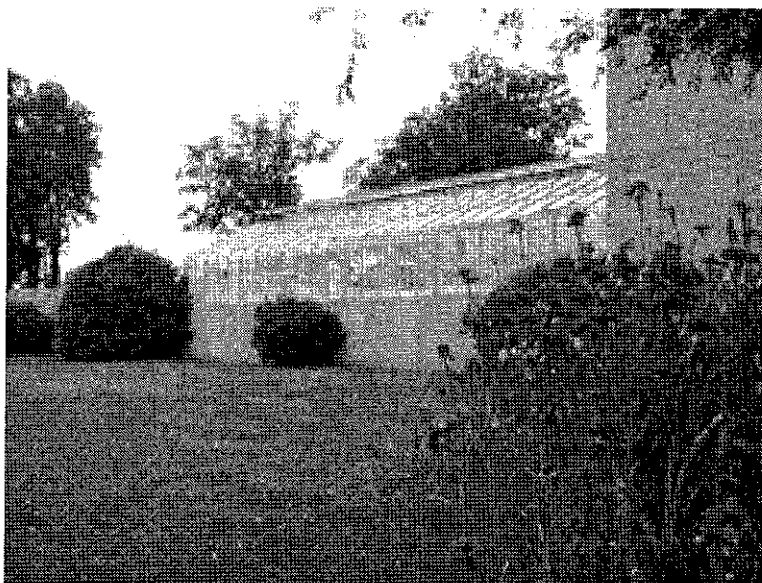
Following the fall plantings and sale, the Greenhouse Committee will start in January getting ready for the annual Flower and Garden Show.

The trick is to force-

bloom azaleas so they will be in full color at just the right time. One warm day and they will peak before the event! Immediately following the Flower and Garden Show, the committee will receive the order on all the spring annuals and perennials. The same planting and nurturing schedules followed in the fall must now be repeated.

In between the two sales and the Flower and Garden Show, the Committee is hard at work at seeding new plants and propagation. This year the project has added a potting bench, outside potting and propagation bed, a shade house, outdoor watering system and walking paths.

If you would like to visit the Greenhouse, give Lois Corley a call, or even better — attend the FALL SALE. *



GARDENS AND FLOWERS
HAVE A WAY OF BRINGING
PEOPLE TOGETHER, DRAWING THEM
FROM THEIR HOMES.
— CLARE ANSBERRY

New York Botanical Garden Internet Resource

By Debra Atencio

Background

The New York Botanical Garden in the Bronx is a historic landmark and most beautiful gardens in North America. Now you can visit this beautiful and educational site by accessing its web site: www.nybg.org. The home page highlights seasonal attractions, education programs. The main menu is located on the right side of the page and lists these submenus: Garden Overview, Visitor Information, Membership, Events, Gardens & Plant Collections, Science, Enid A. Haupt Conservatory, Press Room, Employment, and a Web Site Index.

The Gardens & Plant Collections Menus

The Garden menu allows access to each of these major garden attractions: The Peggy Rockefeller Rose Garden, the Rock Garden, The Native Plant Garden, The Perennial Garden, The Herb Garden, Demonstration Garden, and Family Garden. Each garden displays pictures of the plants in bloom with narrative explaining the design of the garden and the plants.

The Rock Garden incorporates trees, shrubs and plants from around the world. The landscape architects designed the Perennial Gardens by color schemes, seasons, and growing conditions. The Herb Garden tells how to grow herbs and describes medicines derived from herbs and plants. The Demonstration Garden provides a virtual tour of the following types of gardens: fragrance, vegetable, cutting, wild-life, country, shade and autumn. Each garden has detailed information on its design, preparation, planting and maintenance.

The Plant Collection menu provides scientific information to scientists and the public by allowing access to the NY Botanical Garden database and links to eight other botanical institutions.

located in one of the America. educa- http:// highlights events and

This menu also highlights information about these special collections: Bulbs, Daffodils, Daylilies, Tulips, Orchids, Peonies, Ferns, Endangered & Threatened Plants, Flowering Trees, Forest, and Conifer.

The Science Menu

A primary goal of the NY Botanical Garden is to educate the scientific and public community concerning plant life and its conservation. This menu provides access to journals, monographs and books that cover botany and its related subjects. Scientists from the NY Botanical Garden and other institutions provide the scientific knowledge found in these publications.

The Enid A. Haupt Conservatory Menu

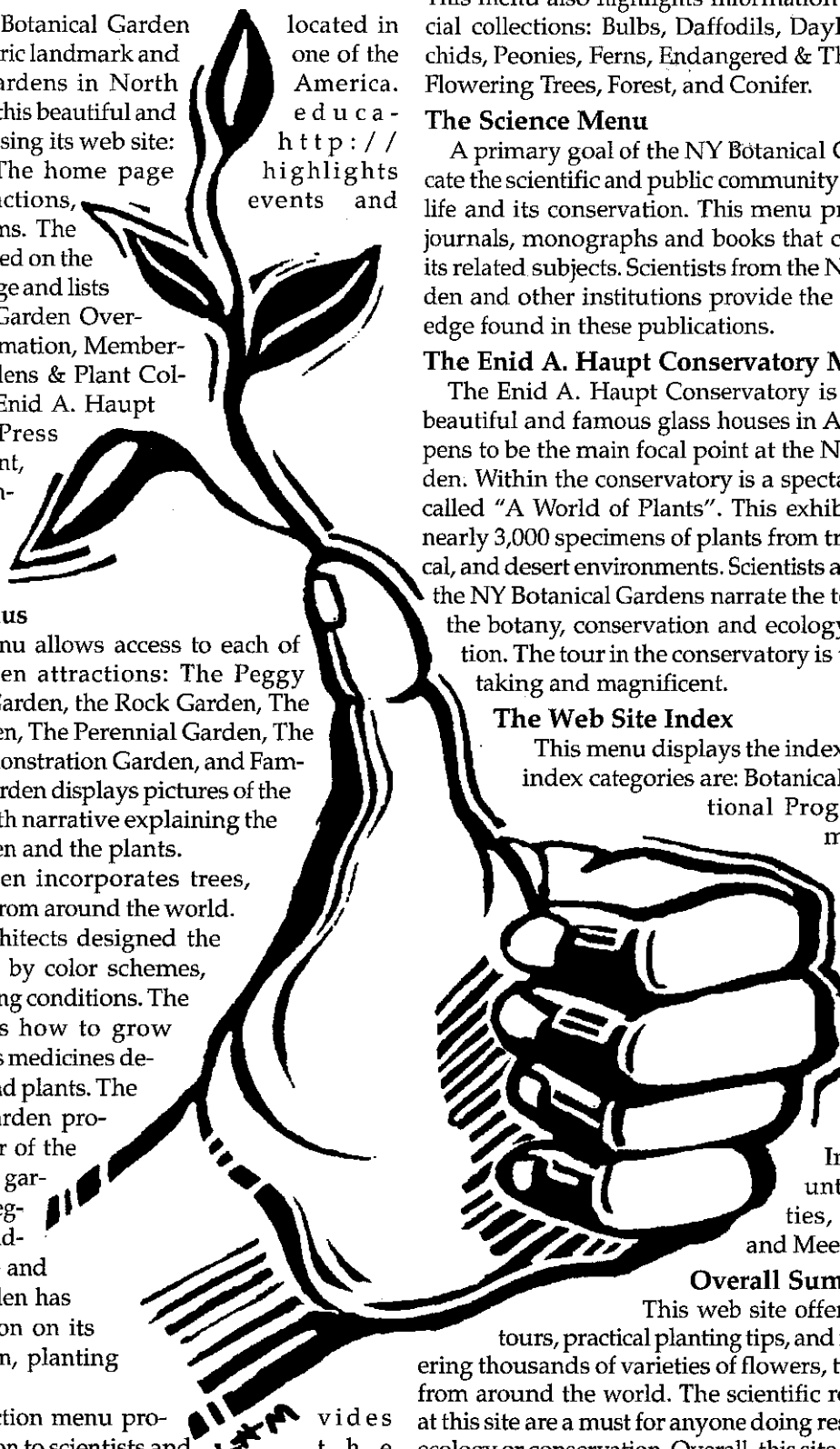
The Enid A. Haupt Conservatory is one of the most beautiful and famous glass houses in America and happens to be the main focal point at the NY Botanical Garden. Within the conservatory is a spectacular exhibition called "A World of Plants". This exhibition showcases nearly 3,000 specimens of plants from tropical, subtropical, and desert environments. Scientists and curators from the NY Botanical Gardens narrate the tour and describe the botany, conservation and ecology of each exhibition. The tour in the conservatory is touted as breathtaking and magnificent.

The Web Site Index

This menu displays the index for the site. The index categories are: Botanical Science, Educational Programs, Employment, Families, Gardens, Information Services, Membership, Plant Collections, Plant Information, Press Room, Shop in the Garden, Tours, Visitor Information, Volunteer Opportunities, and Weddings and Meetings.

Overall Summary

This web site offers visual garden tours, practical planting tips, and information covering thousands of varieties of flowers, trees, and shrubs from around the world. The scientific resources offered at this site are a must for anyone doing research on plants, ecology or conservation. Overall, this site gets two thumbs up and hopefully a real visit from this gardener in the near future.



Organic Methods

By Annette Hurley

It's hot, it's dry and things are starting to look and feel like a tinderbox. Mulching your plants well combats the horrific heat in your gardens in many ways. Mulch covers the soil, making the soil stay at a more constant temperature. Mulch also retains water longer, so your plants' roots get the water they need.

One of the best mulches that I've found is cottonseed meal. Not only does it cover thickly and break down easily into organic matter for the beds, but it also holds in place very well. It works well for potted plants, too.

Any time of year, the best way to water your lawn is more thoroughly and less frequently. This gets the water

through the hard pan soil and down to the root systems. By allowing more water to pass through the soil for a longer period of time, the water is used by the entire plant and doesn't wash off and down the street.

Let your grass grow! The longer the blade of grass, the deeper the root system. This also allows better root systems and water uptake. A zoy-sia lawn that has about three inches or more of grass blade can help block out sunlight (which germinates weed seeds), can reach further down in the soil for water, and develops a deep green color. Let that grass grow!

And when mowing, set the mower to its highest setting. Only remove a third of the blade of grass. It's better to manicure the lawn instead of mowing the grass down to a nub. Remember that the grass makes its food in the blade of the grass by photosynthesis. And, don't forget to use mulched grass — free nitrogen! Let that grass grow!

If you're looking for some calcium, try eggshells. Eggshell around the base of a tomato plant not only provides calcium, it also keeps the worms off the plant. The worms crawl over the shell and it cuts them. Epsom salts and oyster shells are also some good sources for calcium.

Aerate your garden and lawn to allow for more oxygen and better water retention.

If you ever experience grubs in the lawn, spray a mixture of molasses or sugar over the lawn. This makes the grubs come to the surface for the sugar and then the birds come down and eat them.

Watch what is happening in your lawn and garden. Learn what you can from your garden. If you can, combat your problems organically and sensitively. Organic programs sound like a lot of work, but they deliver more in the long run — and you and your garden will be much healthier and happier.

Checklist, continued from page 3

reduce their chances of surviving until spring. Or cover yourself from head to toe. Pull out the noxious plants carefully to get as much of the root as possible. Clean yourself and everything you touched within four hours of starting. Repeat as needed.

Use Poast over the top for grassy weeds.

Benlate can be used to control powdery mildew on crape myrtles, roses, squash and lilacs. Funginex, Phaltan, Topsin-M and Benlate are all effective in controlling black spot on roses.

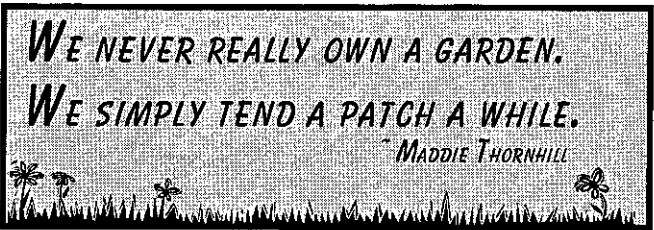
Apply Malathion two or three times, spaced a week or ten days apart, to control aphids and lacebugs.

If you have taken your plants outdoors for the summer, bring them in when temperatures are predicted to drop below 55 degrees. Be sure to check for "pests" and take care of them before you bring them in.

Note: Before using any kind of pesticide, whether fungicide, insecticide or herbicide, be sure plants to be treated contain plenty of moisture.

Blooming Schedule

Ageratum, althea, asters, hardy begonia, buddleia, callicarpus, campsis, cannas, caryopteris, celosia, chrysanthemums, clerodendron, coral vine, crape myrtle, crotalaria, dahlias, dianthus, echevera, eupatorium, gaura, ginger lily, gladioli, hibiscus, ironweed, jacobinia, kerria, linaria, lirioppe, lantana, lycoris radiata, marigolds, blue morning glory, nierembergia, ornamental grasses, oregano, oxalis, petunias, phlox, physostegia, rose pink polygonum, rosemary, roses, sage, salvias, sedum, solidago, spirea, tansy, torenia, tricyrtis, verbena, veronica, vinca, viola, vitex, yucca, white zephyranthes and zinnias.



Artichoke, continued from page 1

usually are fibrous and stringy, and the taste is not the best.

As a flower, each plant produces seven to 10 buds, which open in turn to reveal their lovely purple color. Deadhead the spent flowers, and although the globe is still there, it is too tough to be eaten. The central plants are inclined to die when the last flower fades. They may be cut down and thrown away. The side shoots, especially those well rooted, may be separated and planted for the next season.

A decoction of the leaves may be used as medicine. However it may actually prove harmful because the amount of cynarin cannot be measured.

Try the rare and unusual globe artichoke in your Arkansas garden. They have few enemies and few diseases and are easy to grow.

Master Gardener Alert

Nominating Committee Report

The following is the Nominating Committee's slate of officers for 2001:

President — Suellen Roberts
1st Vice President — Jane Druff
2nd Vice President — Lou Sanders
Secretary — Sandy Harrison
Treasurer — John Prather

This slate will be presented to the membership at the September 12 meeting, when we will vote.

Shade House

Thanks to Granite Mountain Quarries and the Pulaski County Public Works Department, the Greenhouse Committee now has an outside shade house to expand its growing area.

Fall Foliage Tour

Your Travel Committee has been hard at work. They plan a Fall Foliage Tour to Eureka Springs October 26-27, 2000. We'll visit Eureka Springs Gardens and Thorn Crown Chapel with free time to explore Eureka Springs, as well as to enjoy the fall foliage on the drive to and from Eureka Springs.

Cost is \$70.00 per person, based on double occupancy and is due by September 12. The cost will include the bus trip, a room for the night of October 26 and admission to the Eureka Springs Gardens. Meals on your own.

Family and friends are welcome. We must have 45 signed up and paid by September 12 to make the trip. Send a check today and join the fun.

Mail your check to the Pulaski County Extension Office, 2901 W. Roosevelt Rd., Little Rock, AR 72204 or bring it to the September 12 meeting.

MG Training Schedule

All sessions will be on Wednesdays at the State Extension Office on South University.

September 27 — Tour of MG Projects
October 4 — Basic Plant Science, Soils and Pesticide Safety
October 11 — Fruit Crops
October 18 — Vegetable Crops
October 25 — Ornamentals
November 1 — Pruning, Insects and Diseases
November 8 — Turfgrass and Graduation

Experienced Master Gardeners are welcome to attend any of the training sessions. If you plan to attend and eat lunch, please call Mrs. McKinney

Dig In Here ...

Does a gardening/horticultural problem have you stumped? These resources can help you solve nearly any gardening dilemma:

Pulaski County Cooperative Extension Service Office
 2901 West Roosevelt Road
 Little Rock, Arkansas 72204
 340-6650
 bphelps@uaex.edu

Arkansas Cooperative Extension Service Office
 2301 South University
 Little Rock, Arkansas 72204
 671-2000

Pul. Co. Horticultural Hotline
 340-6660

University of Arkansas Cooperative Extension Service Website: <http://www.uaex.edu>

or Beth, 340-6650, by noon on the Monday before the Wednesday you'll be attending. Lunch is \$6.00.

Greenhouse Fall Sale

Stay tuned!

2001 International Conference

"The Magic of Gardening" will be the theme of the 2001 International Program, which will be held at the Hilton in the Walt Disney World Resort in Lake Buena Vista, Florida, with conference headquarters at Disney's Coronado Springs Resort, May 29 - June 1. The conference offers a wide variety of types of education experiences to attract a variety of Master Gardeners. The conference program will be designed to allow attendees to take advantage of planned Epcot International Flower and Garden Festival events in addition to the regular program offerings. Festival programs including Great American Gardeners, Disney's Garden Tips and garden workshops will provide the variety of teaching methods sought out by Master Gardeners. For more information visit the website <http://hort.ufl.edu/mg/interconf.htm> or call Beth at 340-6650 about attending with a group.

Condolences

To the family of Martha Staples, who passed away July 27. She was a member of the MG class of '89 and on the Old State House Committee.

Spread The News!

If you have an item of interest or a newsworthy photo, or need to tell the general membership something about your committee, this newsletter is your opportunity to reach all Pulaski County Master Gardeners.

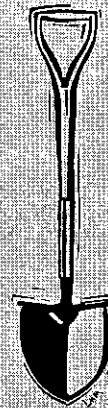
Please provide your information to us by the September meeting to see your message in the October issue of the newsletter.

You may bring your information to the meeting or send it via: Beth Phelps, Pulaski County Cooperative Extension Office, 2901 West Roosevelt Rd., Little Rock, AR 72204, 340-6650, bphelps@uaex.edu; Mrs. McKinney, 340-6650; Rose Hogan, 374-9429, rhogan@aristotle.net; or Cheryl Kennedy, 753-8192, fax 753-6305, and inthegarden@aristotle.net.

If you have late-breaking news unavailable by the closing date, Beth may be able to add it to her letter that is mailed with the newsletter. *

Master Minutes Staff — 2000

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	Linda Westergard
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	Lynne Woods
	Frances Young



Pulaski County Master Gardener Volunteers are trained volunteers working with the University of Arkansas Cooperative Extension Service and Pulaski County Government to provide demonstration gardens and horticulture-related information to the residents of the county. In 1999, these volunteers gave more than 7,000 hours of service.

Elisabeth J. Phelps
 County Extension Agent — Agriculture



Vegetable Gardening In Winter

By Carl Goodson

Arkansas usually has mild winters. Even if a winter in the north part of the state is especially severe, there are some vegetables that can be grown or harvested from under the snow.

Winter is also the season for the development of root systems that enable some vegetables to get a running start on the fast growth of spring. Of course, winter gardening should not be considered for warm weather vegetables such as corn, squash, okra, tomatoes, beets, beans or field peas. But vegetables such as potatoes, all of the cole varieties, English peas, or carrots are candidates for getting a running start on the early spring growth season.

As a rule of thumb, winter gardening is either an extension of the fall season or an early start of the burgeoning spring growth.

Vegetables that can be germinated late in the fall will usually, when protected against deep freezes, go dormant and give the roots a season of good development. Protection is provided by heavy mulch, spunbond fabric, or a cloche of plastic held up over the tender plants by wire or small plastic piping. Such protection must be in place in advance of deep freezes or heavy snow. Light frosts and light snow will not usually hurt.

Potatoes can be started almost any time in winter. Making sure that the sections with one or two eyes have scabbed over before planting, they can be placed directly on top of the prepared soil. Then they need to be covered at once with a heavy layer of compost. If the potato plants come up above the mulch before the severe



weather is over, just add more mulch. This will encourage the plants to form even more potatoes, which will become larger during the intense growth of spring.

Cole varieties such as cabbage, broccoli, cauliflower, and brussels

sprouts are good candidates for growth under spunbond fabric. It is best to start them from plants rather than seeds because few seeds will germinate in the cold. The fabric is so light that ordinarily it does not need to be supported above the plants. The plants will raise the fabric as they grow. A mild winter might permit harvest of these crops during the winter. Broccoli is especially precocious.

The most fool-proof way to garden in winter is under a cloche or miniature greenhouse created with fairly heavy clear plastic stretched over hoops.

See *Vegetables*, cont. on page 6

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Arkansas Is Our Campus

October Calendar and Notes

October

Tuesdays, October 3, 10, 17, 24 and 31, 6-8 p.m. *Perennial Border Gardens* by Mary Evans of the Arkansas Extended Learning Center. Call the AELC at 666-0759 for information on registration.

The *Hobby Greenhouse Association 2000 National Convention* will be held in St. Louis, Missouri, during the weekend of October 6-7, 2000. A highlight of the convention is a trip to the Missouri Botanical Garden's "Best of Missouri Market" event, which includes country stands filled with Missouri farmers' and food producers' harvests. For more information, call (217) 728-7808 or visit the home page at <http://www.ultravweb.net/~jarvis/gha-con.htm>.

Four Seasons Gardening by Mary Evans of Arkansas Extended Learning Center, on Saturdays from 9-11 a.m. Each session is a separate workshop: Fall/October 7, Winter/November 18, Spring/February 10 and Summer/June 6. Call 666-0759 to register for any or all of the sessions.

The *Pulaski County Master Gardener meeting* will be October 10 at 11:30 a.m. at the State Extension Office.

A workshop on *Fall Patio and Container Gardens* will be presented by Mary Evans on Saturday, October 14 at 9-11 a.m. Call the Arkansas Extended Learning Center at 666-0759 for registration.

New this year — a workshop on *Water Garden Basics* on Saturday, October 21. Call Arkansas Extended Learning Center, 666-0759, to register for this program by Mary Evans.

The Ozark Folk Center will offer a workshop on *Creating a New Herb Garden* on October 25. Registration is limited to 8 students and costs \$40. To pre-register, call (870) 269-3851.

John Beneke of the Arkansas Extended Learning Center will present a *Landscape Construction workshop*, 6-8 p.m., Thursdays October 26, November 2, 9, 16. For more information call 666-0759.

An all day forum, "*Therapeutic Gardens: From Theory to*

Implementation", will be held at the Missouri Botanical Garden in conjunction with the American Society of Landscape Architects' meeting October 27. For more information, call (202) 898-2444.

If you have run out of uses for all the pine needles which came down in the wind/rain storm on September 1, learn the *Native American art of pine needle basket making* at Toltec Mounds Archeological State Park on October 28. You will begin a basket to take home and finish. The workshop begins at 10 a.m. and ends at 2 p.m. Contact the Toltec Mounds State Park (501) 961-9442.

Bats Unlimited is a weekend dedicated to the only mammal in Arkansas capable of true flight. A *bat house workshop* as well as *talks and guided hikes* will show the unique characteristics known to bats. Call the Crowley Ridge State Park at (870) 573-6751 for details.

November

Saturday, November 4, Mary Evans will give the workshop *Fall Bulb Blast!* Call the Arkansas Extended Learning Center at 666-0759 to register.

A *Soil Preparation workshop* will be

held November 11. Call Mary Evans at Arkansas Extended Learning Center at 666-0759 to register.

The *Pulaski County Master Gardener meeting* will be November 14 at 11:30 a.m. at the State Extension Office. Be sure to come and welcome our new Master Gardeners! You'll have lots of fun and make new friends at this meeting.

2001

The *International Master Gardener Conference* will be held in Lake Buena Vista, Florida, May 29-June 1. Last month, our Master Gardener Alert! listed details of the Flower and Garden Festival events. This month, the column lists course topics to be offered. (See Page 7 of this issue).



Master Gardener Checklist For October

By Libby Thalheimer

Cover-Up

To prevent fungal diseases next spring, remove old mulch before adding new mulch. Wait to mulch for the winter until hard freezes are forecast.

To keep soils from drying out or washing away during winter, plant hairy vetch, crimson or sweet clover now in unused parts of the vegetable or cut flower garden. Legumes trap nitrogen from the air. When you turn under the cover crop, the nitrogen becomes available for crops.

Dig In

Transplant broccoli, brussel sprouts, cabbage, Canterbury bells, cauliflower, English daisies, shasta daisies, daylilies, forget-me-nots, foxglove, kale, lupines, pansies, peonies, phlox and snapdragons. Place 1 tsp. of a slow-release fertilizer around each plant.

Plant belamcanada, chionodoxa, colchicum, crocus, daffodils, eremurus, galanthus, garlic, hyacinths, iris, lilies, leucojum, muscari, oxalis, scilla, shallot bulbs, Spanish bluebells, star flower, Virginia bluebells, windflower, winter aconite, and zephyranthes. Remember: the larger the bulb, the bigger the plant. If you must store your bulbs before planting, keep them in the refrigerator, away from fruits and vegetables.

Divide and Multiply

Bring indoors a pot of lily-of-the-valley pips for indoor blooms.

Every three or four years, divide black-eyed susan, chives, coneflowers, coreopsis, shasta daisies, hemerocallis, siberian iris, peonies, phlox, sweet woodruff, and yarrow to restore vigor to old and crowded plants. Tarragon should be divided yearly.

Dig tender bulbs such as caladiums, fennel and gladioli. Gently remove any soil clinging to the bulb. After drying the bulbs, store in a cool, dark, well-ventilated area in old potato or onion sacks. Dust the caladiums and gladioli with Captan.

Take hardwood cuttings of woody plants.

Hole Truth

Fall is a good time to plant or transplant trees and shrubs. Plant camellias, both sasanqua and japonica varieties, and other broad leaf evergreens. Soil amendments added to the backfill for individual planting holes has been shown to be of no benefit and may actually be a detriment to the establishment of ornamentals. If you are

planting in a bed, it is a good idea to amend the soil in the whole bed.

Sow What?

Sow beets, carrots, chard, cilantro (coriander seed), collards, garden cress, kale, kohlrabi, leeks, lemon balm, mustard greens, radishes, spinach, turnips and winter peas. Mix cornflower and larkspur seed with sand and broadcast where they are to bloom. Sow rye grass early in the month for winter lawn.

Turf Question

If you have been fertilizing your lawn this year, you do not need to fertilize with a winterizer (one with no nitrogen, only phosphorus and potash). You do need to fertilize if your lawn is severely damaged or stressed this year, if you have not been fertilizing regularly, or if you have new sod. Keep the leaves raked off the grass. Turfgrass needs sunlight as growth slows before dormancy.

Who Is Bugging You?

Insects can build up a resistance to a particular chemical, so rotate the insecticide you use. Since insecticides lose their effectiveness over time, it is easy to rotate your chemicals by buying different ones each year.

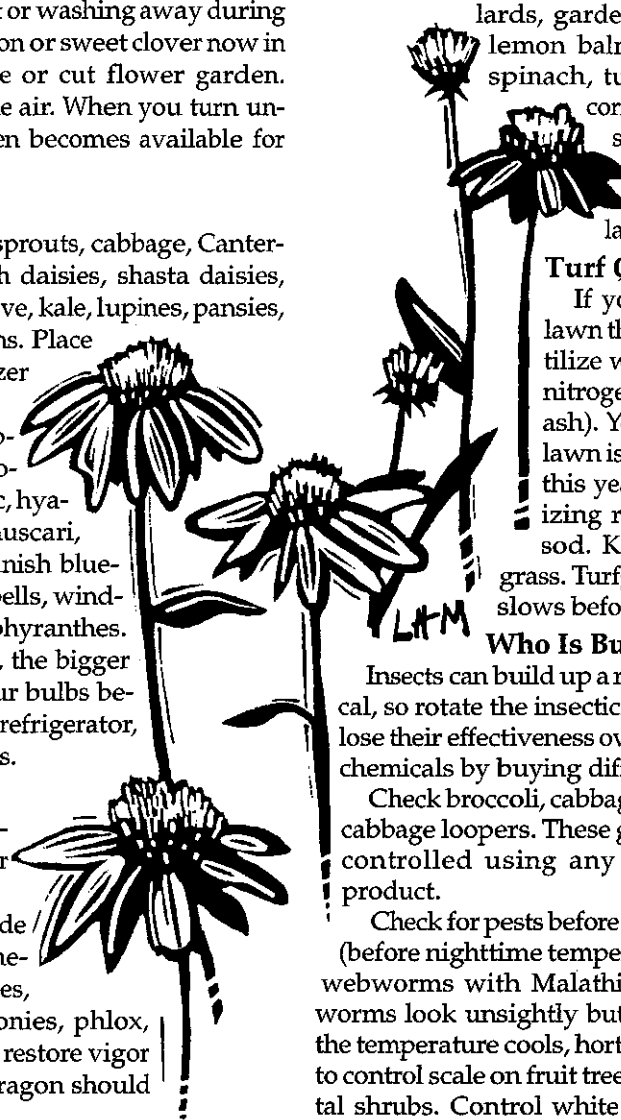
Check broccoli, cabbage, cauliflower and collards for cabbage loopers. These green caterpillars can be easily controlled using any *Bacillus thuringiensis* (Bt) product.

Check for pests before moving tropical plants indoors (before nighttime temperatures reach 45°). Control fall webworms with Malathion, Diazinon or Cygon. The worms look unsightly but do little damage to trees. As the temperature cools, horticultural oil should be sprayed to control scale on fruit trees, camellias or other ornamental shrubs. Control white peach scale with oil such as Volck, ornamentals with Cygon. Treat fruit trees again with dormant oil after fall leaf drop.

Spray azaleas for lacebugs with Isotox, Cygon or Malathion. Early fall is the worst time for infestation.

October Bloomers

Abelia, ageratum, sweet alyssum, aster, barberry, beautyberry, bittersweet vine, buddleia, ornamental cabbage, calendula, camellia, canna, celosia, chelone, Chinese pistache, chrysanthemum, clerodendron, crape myrtle, dahlia, dianthus, dogwood, euonymus, eupatorium, four o'clock, gaura, ornamental grasses, gum, hibiscus, kale, kerria, lantana, larkspur, lobelia, maple, marigold, Mexican sage, nierembergia, sweet pea, petunia, poppy, rose, rosehip, salvia, scabiosa, snapdragon, solidago, stock, torenia, tricyrtis, verbena, viburnum, viola, Virginia creeper, wisteria, and zinnia.



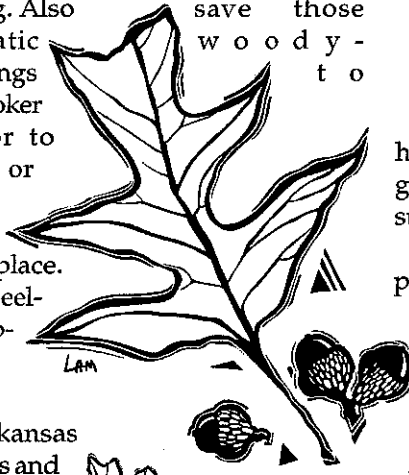
What Works!

By Kathy Kohl

Autumn leaves are falling fast and furious, the temperatures are cooling down, and sitting by the roaring fireplace with a bowl of chili and cup of cider sounds like a sporting good time to me.

An Invitation to a Smellfest

Our summer drought has left behind an ample supply of firewood and kindling. Also save those dried herb and aromatic stemmed trimmings woody to burn in your smoker to add flavor to grilled meats or for spicing up your home's aroma when you fire up the fireplace. Tossing in dried citrus peelings adds a lot of nostril appeal, too.



To Bag Or Not To Bag

We are blessed in Arkansas with an abundance of trees and shrubs that tend to themselves and their seasonal cycles with little or no help from us. However, the "fallout" is there for our tending. What to do with all those leaves? Raking them directly into flower beds and gardens will help protect seeds and perennials through any harsh winter weather while adding valuable composting material to the soil. Surrounding coldframes with bales of hay or bags of leaves will help to keep them warm on those frosty evenings and throwing a blanket over the glass or plastic at night will help maintain the warmth collected during the daytime hours. Rocks encircling (but not touching) the base of plants will also act as heat collectors and moreover will give plants a jumpstart in the spring by earlier warming the soil around the roots.

Jungle Fever

It is time to rearrange and transfer our potted plants to more suitable climes and, for most of us, this will be inside our homes. Many of our open airy "summer" homes are transformed this time of year into tropical jungles. Unfortunately, as with any "jungle" therein will thrive a varied spectrum of uninvited creepy, crawly things unless we send them packing. One technique that

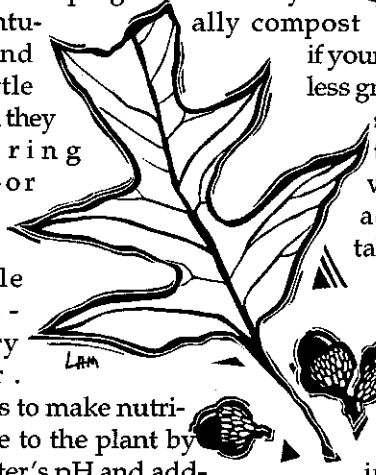
will help to rid your houseplants of unwanted critters is a method called "leaching". This will also wash away salt and other harmful minerals that have accumulated in clay pots. Place the pot in a container filled with water to the level of the soil, let it stand for at least 30 minutes or until the soil is fully saturated. Remove and drain well. Wash the leaves with a solution of 1 tsp. of dish soap to a gallon of water, letting the soapy water run through the soil and out the drain hole of the pot. This method requires a little extra gardener's elbow grease but is well worth the results.

Of course, you may opt to just repot your plants with a fresh potting medium. If you have access to sweetgum balls you can use them as filler in the bottom of your pots, leaving 6-8 inches of room at the top for soil. A piece of screen in the bottom of your container works nicely to keep the dirt in and a gumball from plugging up the drainage. An added benefit is that these spiny seeds will eventually add beneficial compost and also make larger pots lighter and more easily transported. You can also reduce the weight of pots and increase moisture retention to the soil by using packing peanuts in this same way, always keeping in mind they are not going to eventually compost away.

And if your plants start looking less green around the gills a little during their invasion, try adding a tablespoon of apple cider vinegar to a gallon of water every time you water. The vinegar helps to make nutrients more available to the plant by neutralizing the water's pH and adding up to 50 trace minerals, giving your plants a little pick-me-up.

The Garden School

"I have learned much from other people's gardens, and the lesson I have learned most thoroughly is never say 'I



See What Works!, continued on page 8

Bats — Facts, Fiction and Conservation

By Debra Atencio

Background

Horror movies and books depict bats as bloodthirsty vampires that prey on humans. And, bats are ugly, so this does not help their image at all. However, these are wonderful little creatures that help control insect populations, aid in medical research for the blind, and pollinate crops.

There are approximately 950 species of bats in the world that fall into one of these two suborders: Megachiroptera and Microchiroptera. Megachiroptera includes the larger bats that hunt during the day, like to eat vegetation and tend to live in Central and South America. There is only one species in this order that is bloodsucking, but it prefers the blood of cattle and birds. This species does *not* live in North America. Microchiroptera is the suborder that lives in North America. These are the smaller species that prey on nocturnal insects. These are the little creatures we are familiar with in the United States and the ones that will be discussed in this article.

Facts

Bats are mammals. They have teeth, hair, birth live young, and nurse. Bats do not have feathers. Their wings are like fingers with leathery skin webbed between them. Bats like to eat mosquitoes, lacewings, moths, gnats, cockroaches, pollen and nectar. One bat can eat up to 3,000 insects a night.

Bats are not blind. They use echolocation to find their prey at night. These bats produce a very high pitched sound that is inaudible to humans. These sounds echo off objects, and the bats use the sound to discern the difference between prey and obstacles.

Fiction

Bats will not fly into your hair, since they use echolocation to navigate. Bats are not dirty — they groom themselves like cats do. Bat droppings do not pose any more of a health risk than dog and cat droppings. Bats, like all mammals, can get rabies, but less than 10 people in the past 50 years have contracted rabies from bats. Humans are 99 percent more likely to contract rabies from a dog. When bats do get rabies, they die quickly. As with any wild animal, never handle a bat that is lying on the ground. It is probably very sick and may bite in self-defense. Call an animal control unit to remove it, or wear protective gloves to place in a container.

Conservation

Almost half of the bats in North America are

endangered due to wetlands disappearing and the use of pesticides. Both of these are responsible for their dwindling food supply.

Even so, fear and ignorance remain the greatest threats to the survival of these creatures, although the tide seems to be turning as more people learn about the importance of these creatures in maintaining the ecosystem. Austin, Texas is a good example of a community that is protecting its bat population. At dusk, thousands of bats emerge to feed, consuming almost 15 tons of insects a night. This nightly flight is now a popular tourist attraction in Austin.

Educating your friends, family and neighbors by sharing the information in this article is a very easy way to help dispel the myths about these creatures and thereby ensure their survival in North America. If you would like to do more, then build and install a bat house on your property. Below are some helpful guidelines for building and installing a



bat house that will attract and keep bats.

Constructing the Bat House

1. A bat house should be 2 feet tall by 14 inches wide with a 6-inch landing area underneath.
2. Use softwood. Cedar is best. Do *not* use pressure-treated wood or wood preservatives.
3. Use rough lumber to give bats a foothold.
4. Do *not* paint or varnish the inside of the house.
5. Cover roof and caulk all seams, to insulate and waterproof.

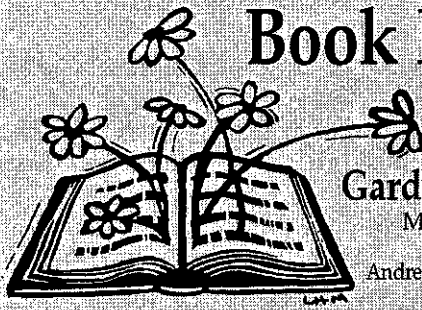
Installing the Bat House

1. Place near a water source like a drainage ditch, pond or lake. This will ensure an adequate supply of insects for food.
2. Tilt the house about 10° to help bats stay inside.
3. Place the bat house on a building, high post or tree. (Bats find houses on buildings and posts faster than they do on trees.)
4. Install the house at least 10-15 feet above the ground to deter predators.
5. Install in an area that gets maximum sunlight. Bats need high temperatures to survive, even in the summer.

See *Bats*, continued on page 6

Book Review

By Phyllis Rye



Gardener's Journal

Mary Engelbreit

Andrews & McMeel Pub., 1994

In the brightly illustrated hard cover *Gardener's Journal*, the writer illustrates how to design, record and organize information that will help you in planning the perfect garden. Each section is sprinkled with the Mary Engelbreit quotes and illustrations that are so familiar from her cards and stationery. The *Gardener's Journal* would be a perfect gift for the amateur or Master Gardener. Actually, I bought a copy for myself at Book-A-Million in Lakewood Village, North Little Rock. This book could be your constant companion in the garden.

As the writer states, true garden artists are never content. They are always rethinking and reinventing. The gardener's work is never quite complete.

The *Gardener's Journal* is divided into several sections. "Taking Stock" will help you determine the physical characteristics of your garden or landscape, such as overall size, average last frost, average first frost and yearly rainfall. There is also a place to record pests, insects and diseases of the garden. There are grids

provided to sketch your garden area and a couple of pages for before and after photos of the garden.

Also, there is a "12-Month Summary" that provides a place to record thoughts about last year's garden and improvements you would make. At the beginning of each monthly section is a listing of tasks that are likely to need attention during that month, as well as tips on gardening pertinent to that month. For example: "In January take inventory of your tools and sharpen and repair them. Rub linseed oil or furniture wax into wooden handles to give them a protective coating and reduce splintering.

"December tip: If you plan to add an evergreen to your landscape, consider buying a living Christmas tree from a nursery. As soon as possible after Christmas move it to a sheltered spot outdoors and give it about a week to acclimate before planting."

There are several lined pages for record keeping, and tips on trees and shrubs, grasses and lawns, annuals, perennials, roses, bulbs and other people's gardens. Finally, there is a general reference section, beautifully illustrated with a place to record supplier names, addresses and phone numbers.

Although the 112 page book is consumable (you can write in it), I don't know if I can force myself to do that just yet. For now I prefer reading it and using my imagination to create a perfect garden. As Mary Engelbreit says, "We can never have enough of nature." *



THE FROST HURTS NOT WEEDS.

~ THOMAS FULLER

Bats, continued from page 5

6. Install by early April before bats begin migrating.

7. Clean debris out of the bat house on a yearly basis.

It may take up to two years for bats to find and start using your bat house, so be patient. Bat houses will *not* increase the likelihood of attracting bats into *your* home. A single chamber bat house can house nearly 50 bats. Bats will not interfere with attracting birds to your yard since they do not compete for food or space with birds.

Resources

USDA Forest Service Wild Life, Fish, and Rare Plants.
P.O. Box 96090, Washington, DC 20090-6090.

BAT Conservation International, P.O. Box 162603, Austin, TX 78716

NC State University — Working with Wildlife — Bats

Log on to the following Internet site to get specifications on how to build your bat house: www.ces.ncsu.edu/nreso/forest/steward/www21.html <<http://www.ces.ncsu.edu/nreos/forest/steward/www21.html>>.

Vegetables, continued from page 1

This can be done either before planting or after a suitable germination is achieved. Varieties that can be grown this way are lettuce, spinach, radishes, and other salad ingredients. Plant them in rows the length of the cloche just as you would in early spring. Water and weed them through the winter at regular but not frequent intervals. Under the cloche, the plants will not get rain, so regular watering is a must. Likewise, you can expect weeds to germinate under the encouraging environment that you have provided your veggies. Thinning the rows also is necessary to give each individual plant the room it needs. Scissors are good tools to cut down weeds and extra vegetable plants without uprooting the plants you want to grow larger.

A cloche has to be constructed sturdy enough to withstand a snow, or a wind. Be sure the hoops are stout enough and that they are firmly stuck into the ground or fastened to the timber of a raised bed. Sweep off the snow as soon as possible because it will shade the plants you are giving special attention. Weigh the edges of the plastic down with bricks or stones against any wind that might get under the cover and rip it away.

More than any other form of winter gardening, the cloche will provide makings for salads all during the season that most gardeners ignore as an opportunity to practice their skills. *

Master Gardener Alert!

Congratulations To Our New Officers:

- Suellen Roberts, *President*
- Jane Druff, *1st Vice President*
- Lou Sanders, *2nd Vice President*
- Sandy Harrison, *Secretary*
- John Prather, *Treasurer*

Greenhouse Sale

Lois Corley says to watch the mail for the announcement of the Fall Plant Sale. It will be on Saturday, either October 14 or October 21, depending on how the new plants grow off. Some plants have been backordered, i.e. poppies. Most plants for sale are perennials. For specific plants available, see the list which appeared in last month's *Master Minutes Project* article by Gena Norris.

Lois also asks the committee chairs to get project beds ready for the new plants!

New MGs Reception

The November 14 Master Gardener Meeting will be a "get acquainted reception" for the newly trained Master Gardeners and the present active Master Gardeners. Please be sure to attend — meet our newest members and make them feel welcome!

Master-Gardeners-Only Web Site

Beth has provided this additional information:

This web site is meant to aid program management and promote communications between the counties. It is new and still under construction. At times, the site may be inaccessible while changes and updates are being made.

Please do not give out the ID and password to anyone other than Master Gardeners. The password will change periodically to ensure security of the site. Beth will let you know when it changes, probably once a year.

How to get to the MG Only Web Site:

1. Go to <http://www.uaex.edu/hort/mgrdner.htm>
2. Scroll to the bottom of the page and click on the link to Master-Gardeners-Only Web Site.
3. Enter the word "mastergardener" in the User Name field. (There has been some confusion about this. The User Name is not your own name. It will be "mastergardener" for everyone, and the lower case letters are important).

4. Enter the password in the Password field. (Beth will supply this to active Master Gardeners.)
5. Click OK.
6. You're in !!!

Changes in MG time accounting

At a workshop on the Master Gardener program, where John Prather represented Pulaski County MGs, new guidelines were presented for reporting time spent on project work. Starting January 1, 2001, no travel time to and from projects can be reported.

In 2002, changes will occur for new Master Gardener hours.

More information on this will be available soon.

More on 2001 International Conference

Proposed Master Gardener course topics:

- Gardening to attract butterflies
- Jurassic plants — living fossils (cycads, tree ferns, horsetail, ginkgo)
- Porch and patio gardening
- Landscape trends for the new millennium
- Dealing with backyard nuisance wildlife
- Collecting and preserving plant specimens

PCMG Training Schedule

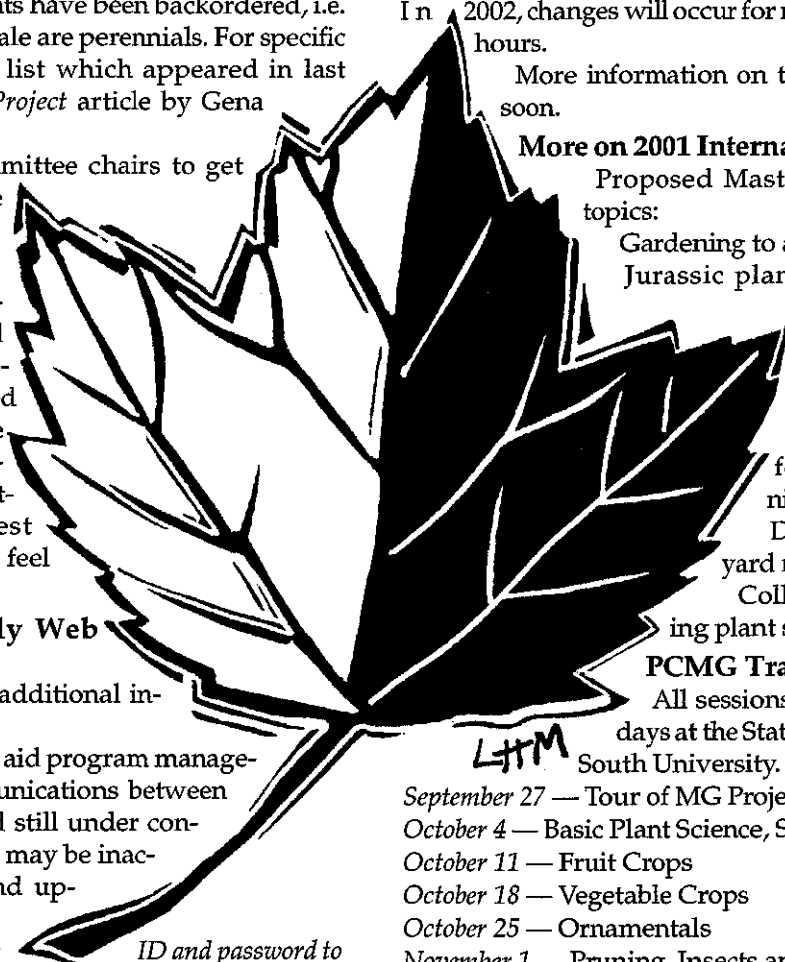
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- October 25 — Ornamentals
- November 1 — Pruning, Insects and Diseases
- November 8 — Turfgrass and Graduation

Experienced Master Gardeners are welcome to attend any of the training sessions. Please call Mrs. McKinney or Beth, 340-6650, by noon on the Monday before the Wednesday you plan to attend, so that there will be enough handouts prepared and also so you can order lunch. The lunch cost is \$6.00.

Winter Holiday Party

Mark your calendar: Monday evening, December 11, is the date for the Winter Holiday Party which will be a potluck at the Burns Park Party House.



What Works!, continued from page 4

know' - there is so infinitely much to learn." Gertrude Jekyll

Some people are just so clever! Take this creative idea to keep the dry fertilizer and water mixture from clumping and clogging the sprayer end of your tank: toss an old golf ball into the tank. Its turning and bobbing keeps things clearly liquefied.

Got an old golf bag (with or without wheels) taking up space in the garage or your mom's old market tote with wheels? If not, you can always find these items at flea markets, yard sales and thrift stores. Convert these dinosaurs to handy garden caddies, letting only your imagination be your limit! If your golf bag doesn't have wheels, then attach it to the market tote or a couple of old roller skates ... Having any visions yet? Or attach a 5-gallon bucket. Bungee cords work great for this project. The idea is to have everything you are going to need, including your rakes, shovels, hoes and smaller tools and supplies in one spot, easily moved from place to place. All you need to get started is a set of wheels.

By The Light Of The Moon

The Farmer's Almanac suggests the following October gardening dates for maximizing your results:

Plant root crops October 14-15

Plant aboveground crops October 4-5

Pruning to encourage growth October 2-3

Pruning to discourage growth October 20-21

Until We Meet Again

Keep those ideas and pearls coming my way. You can reach me as follows: (e-mail) kkohl2@juno.com; (phone) 376-4552; (U.S. Mail) P.O. Box 250524, Little Rock, AR 72225-0524.

Have a spoooooky good October! ✪

Dig In Here ...

Does a gardening/horticultural problem have you stumped? These resources can help you solve nearly any gardening dilemma:

Pulaski County Cooperative Extension Service Office

2901 West Roosevelt Road
Little Rock, Arkansas 72204
340-6650
bphelps@uaex.edu

Arkansas Cooperative Extension Service Office

2301 South University
Little Rock, Arkansas 72204
671-2000

Pul. Co. Horticultural Hotline

340-6660

University of Arkansas
Cooperative Extension Service
Website: <http://www.uaex.edu>

Trading Post

By Frances Young

Lou Sanders, 221-9722, has small nandinas and aucuba seedlings.

Anita Chamberlin, 758-1959, has red cannas and rust daylilies.

Joan Humphries, 280-9023, wants barberry shrubs.

Anita Chamberlin, 758-1959, has lots of lava rock.

Margaret Breen, 758-1883, has hollyhock seeds for pastel hollyhock and passion vine with white flowers and wants hollyhock seeds for dark colored blooms.

Lynda Harkenreader, 982-6011, has yellow, orange and orange-trimmed-in-yellow cannas as well as yellow and green variegated cannas and wants bottlebrush plant.

Melissa Bacon, (501) 842-9812, wants Christmas fern. ✪

Spread The News!

If you have an item of interest or a newsworthy photo, or need to tell the general membership something about your committee, this newsletter is your opportunity to reach all Pulaski County Master Gardeners.

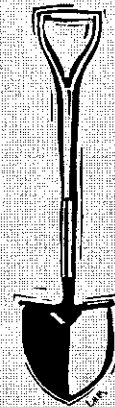
Please provide your information to us by the second Tuesday of October to see your message in the November issue of the newsletter.

You may bring your information to the meeting or send it via: Beth Phelps, Pulaski County Cooperative Extension Office, 2901 West Roosevelt Rd., Little Rock, AR 72204, 340-6650, bphelps@uaex.edu; Mrs. McKinney, 340-6650; Rose Hogan, 374-9429, rhogan@aristotle.net; or Cheryl Kennedy, 753-8192, fax 753-6305, and inthegarden@aristotle.net.

If you have late-breaking news unavailable by the closing date, Beth may be able to add it to her letter that is mailed with the newsletter. ✪

Master Minutes Staff — 2000

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	Libby Thalheimer
	Linda Westergard
	Laura Anne Wilson
	Lynne Woods
	Frances Young



Pulaski County Master Gardener Volunteers are trained volunteers working with the University of Arkansas Cooperative Extension Service and Pulaski County Government to provide demonstration gardens and horticulture-related information to the residents of the county. In 1999, these volunteers gave more than 7,000 hours of service.

Elisabeth J. Phelps
County Extension Agent — Agriculture



*MY GARDEN IS AN HONEST PLACE. EVERY TREE
AND EVERY VINE ARE INCAPABLE OF CONCEALMENT
AND TELL AFTER TWO OR THREE MONTHS EXACTLY
WHAT SORT OF TREATMENT THEY HAVE HAD.*

~ RALPH WALDO EMERSON



County Extension Office Showcases Lawn Grasses

By Julia Loyall

The Pulaski County Cooperative Extension Office on Roosevelt Road has six small plots on campus which demonstrate six types of turf grass suitable and commercially available in the Pulaski County area and elsewhere in Arkansas. These show samples of Tifgreen Bermuda, Saint Augustine, Zoysia Matrella, Zoysia Z52 (Meyer), Zoysia El Toro and a blend of several turf-type fescues. These give the visitor an overview of the differences in frequently used area lawn grasses. The Extension Office also has publications with cultural information about each broad type of turf.

Project lawn team captain Guy Baltz started each plot this spring with sod obtained from local nurseries and grass farms. The unusual summer heat caused early loss of the fescue sod, which is being replaced now that 100° days seem to be behind us.

Lawn grasses are sensitive to soil temperature, particularly nighttime temperatures. This factor is used to classify them as northern or southern grasses.

Southern grasses can take soil temperatures into the 90s, but suffer in cold ground and may die out in freezing temperatures.

Northern grasses prosper in

cooler daytime temperatures and can survive summer heat if nights are cool.

There is a transitional zone across the United States which roughly follows USDA Hardiness Zones 7 and 8. North of this zone, northern cool-weather grasses do well, and south of it warm-weather grasses are dependable. As you suspected, most of northern and central Arkansas lies within this "iffy" zone.

Here, northern grasses can succeed in northern exposures, higher elevations, and/or shade, where nighttime temperatures will be cooler.

Southern

grass are a good choice in southern and western exposures and in full sun. Both will do well in these situations if (*big if*) their water, mowing and other maintenance needs are met.

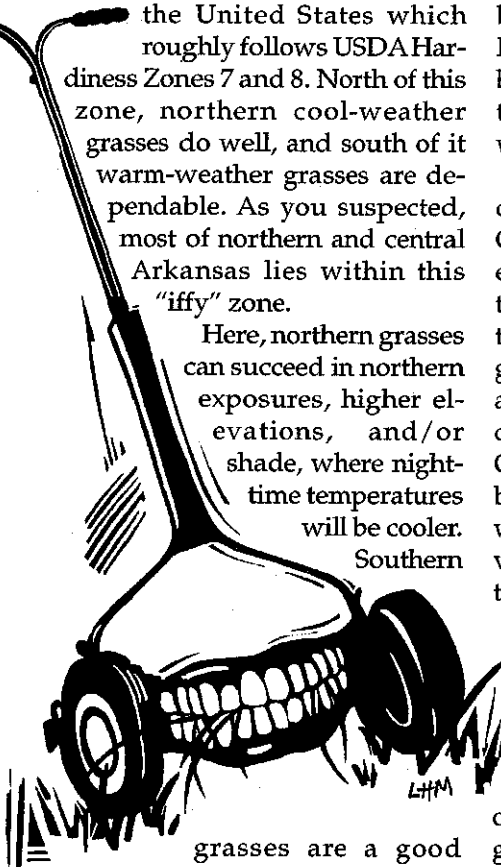
Because these factors plus humidity and soil type are all so variable, it is wise to scout your particular neighborhood and quiz friends whose lawns you like when you plan to begin to rehab your lawn. Ask them to share their success secrets. They will!

Also, get that soil test at your county extension office. The Master Gardener Arkansas Handbook has excellent information on the common types of

turf grasses and their culture. Our libraries will provide details about specific cultivars.

Five of the grass plots show

See Lawn, continued on page 7



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Arkansas Is Our Campus

November Calendar And Notes

November

November 1 - 4 the Ozark Folk Center will present an *Organic Greenhouse Workshop Series*. It will be held 10:00 a.m. - 4:00 p.m. each day. The cost is \$40 per day and preregistration is required. Call (870) 269-3851.

November 1-12 is *Autumn at the Dallas Arboretum: America the Beautiful*, with over 1 million chrysanthemum blossoms. (214) 327-8263.

Saturday, November 4, Mary Evans will give the workshop, *Fall Bulb Blast!* Call the Arkansas Extended Learning Center at 666-0759 to register.

A *Soil Preparation Workshop* will be held November 11. Call Mary Evans at Arkansas Extended Learning Center at 666-0759 to register.

The *Pulaski County Master Gardener meeting* will be November 14 at 11:30 a.m. at the State Extension Office. **Be sure to come and welcome our new Master Gardeners!** You'll have lots of fun and make new friends at this meeting.

November 15 is *America Recycles Day*.

A *New Herb Garden Progressive Workshop* will be given November 16-18 at the Ozark Folk Center. Preregistration is required and the cost is \$40 per day. Call (870) 269-3851.

The *Central Arkansas Iris Society* meets at 2:00 p.m. on November 19 at the Little Rock Garden Center in Little Rock.

December

December 2 at Mount Nebo State Park, Dardanelle, there will be a *Winter Bird Workshop* from 10:00 a.m. - 2:00 p.m. Learn how to attract winter birds to your backyard, build a nesting box and make a birdfeeder. Contact Mount Nebo State Park at (501) 229-3655.

A *Perennial Beds and Cold Frames Workshop* will be held December 6-8 at the Ozark Folk Center. Tuition is \$40 per day and preregistration is required. Call (870) 269-3851.

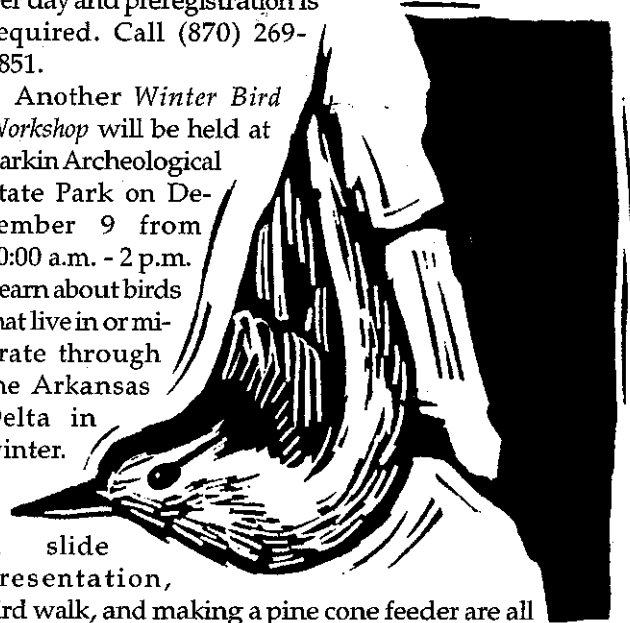
Another *Winter Bird Workshop* will be held at Parkin Archeological State Park on December 9 from 10:00 a.m. - 2 p.m. Learn about birds that live in or migrate through the Arkansas Delta in winter.

A slide presentation, bird walk, and making a pine cone feeder are all planned. Cost is included in regular park admission: \$2.25 for adults and \$1.25 for children 6-12, plus tax. Call (870) 755-2500.

Monday, December 11, is the *PCMG Holiday Party Potluck*.

2001

The *International Master Gardener Conference* will be May 29-June 1 in Lake Buena Vista, Florida. See the "Master Gardener Alert!" this month (and for the past several months) for some course topics which will be on the conference program. *



Master Gardener Checklist For November

By Libby Thalheimer

Cover-up

Wait until the first hard freeze to apply mulch. A 3-inch layer of mulch will keep the soil an even temperature, and prevent alternate thawing and freezing. Clean out old mulch and other debris before adding new mulch, to prevent fungal diseases next spring. Dead stalks left in the garden provide choice locations for insects and diseases to overwinter. Destroy any infested material. Add the rest to your compost heap.

Remove fallen leaves that may smother mat-forming plants such as pinks and thyme. Half-rotted hardwood leaves make a good mulch for acid loving plants like azaleas and camellias.

Cut back frost-nipped perennials now, but leave 2 to 3 inch stalks to help you find them. This will prevent accidental uprooting of dormant crowns when you plant in early spring.

Add a 6 to 8-inch layer of leaves, pine needles or hay to beets, broccoli, carrots, kale, parsnips, radishes, spinach and turnips so the vegetables can be harvested as needed. Potatoes and sweet potatoes must be harvested right after the first frost, or they will rot in the ground.

To protect cold-sensitive plants from a freeze, cover them with a box, blanket, burlap or even a sheet. If you use plastic, don't let it touch the plants.

See Checklist, continued on next page

Checklist, continued from previous page

Protect the grafts of tender young fruit trees by wrapping with towels or with newspaper about 10 sheets thick.

Dig In

Transplant bachelor buttons, ornamental cabbage, Canterbury bells, English daisies, Shasta daisies, daylilies, delphinium, dianthus, forget-me-nots, foxglove, kale, rocket larkspur, lupines, nasturtium, pansies, parsley, peonies, phlox, poppies, snapdragons, stock and violas. Place 1 tsp. of slow-release fertilizer around each plant. Plant lettuce and spinach in the cold frame.

Plant belamcanada, chionodoxa, colchicum, crocus, daffodils, eremurus, galanthus, garlic, hyacinths, iris, lilies, leucojum, muscari, flowering onion, oxalis, scilla, shallot bulbs, Spanish bluebells, star flower, tulips (not before 11/15), Virginia bluebells, windflower, winter aconite, and zephyrathes.

Remember: the larger the bulb, the bigger the plant. If you must store your bulbs before planting, keep them in the refrigerator, away from fruits and vegetables.

Don't move roses before 12/1.

Divide And Multiply

Divide perennials to restore vigor to old and crowded plants. Black-eyed Susan, chives, coneflowers, coreopsis, shasta daisies, hemerocallis, Siberian iris, peonies, phlox, sweet woodruff and yarrow need to be divided every three to four years. Tarragon should be divided yearly.

Dig tender bulbs such as caladiums, cannas, dahlias, fennel, gladioli and ismene. Gently remove any soil clinging to the bulb. After drying the bulbs, store in a cool, dark, well-ventilated area. Dust the caladiums and gladioli with Captan. Old potato or onion sacks work well as a storage container.

Take 6 to 10-inch cuttings of wax begonias, coleus, ivy or vinca and put in a jar of water on your window sill.

Fertile Ground

Fertilize trees.

Winter is a good time to prepare the soil for new beds or adding amendments. Whether your soil is clay or sand, it will benefit from the addition of compost, manure or other organic matter. Top dress garden with 0-20-20 to have it ready for next season.

Remember to fertilize pansies regularly all season during any warm spell.

Garden Cleanup

This is a good time to take inventory of your tools and to clean, oil, and sharpen.

Disconnect the spark plug, drain all gasoline and oil, add new oil and air filter, and sharpen the blade on your mower.

Check the condition of spraying equipment, hose attachments or pressure sprayers.

Make an inventory of flats, stakes and labels and replenish your supply if necessary.

Make necessary repairs to cold frames.

Hole Truth

Now is a good time to transplant trees and shrubs. To have fall color in your yard, check nurseries this month. Remove unhealthy shrubbery and prepare the ground for replacements. Soil amendments to the backfill for planting holes has been shown to be of no benefit to trees and shrubs. If you are planting in a bed, it is a good idea to amend the soil in the whole bed. Plant azaleas, camellias, rose cuttings and other broad leaf evergreens.

Houseplants

Rotate plants to sunny locations so they will stay in good condition through the winter. Avoid placing them near vents, as dry, heated air will damage the leaves. Check plants weekly to ensure the soil is moist.

Bromeliads thrive indoors with minimal care. Just place room-temperature tap water in their cup about every two weeks; refill when the cup is nearly empty. Keep soil moist, but not soggy.

Sow What?

Cast any annual or perennial seeds from deadheaded flowers where you want them to bloom.

Turf Question

If you have been fertilizing your lawn this year, you do not need to use a winterizer fertilizer (one with no nitrogen, only phosphorus and potash). You do need winterizer fertilizer if your lawn is severely stressed, or if your sod is new, or if your grass is

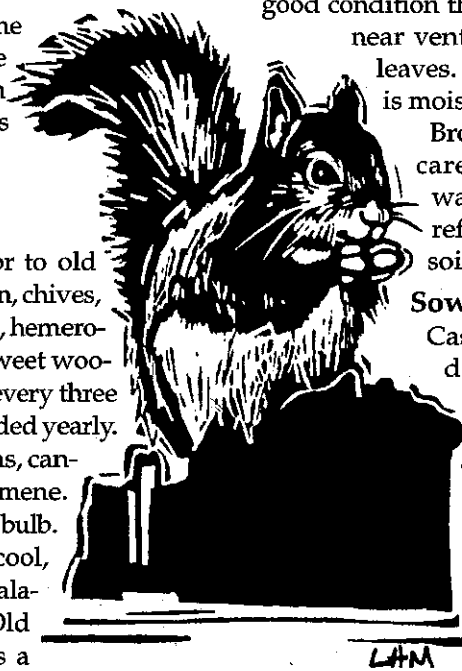
fescue.

Apply Atrazine or Simazine to warm-season grasses for pre-emergence and/or post-emergence control of annual bluegrass and selected winter annual broadleaf weeds from November through February.

If thatch exceeds one-quarter inch, use a vertical mower to removed it. Thatch is most effectively controlled by top-dressing soil with a one-quarter inch layer of topsoil.

Keep the leaves raked! Grass needs sunlight as growth slows before dormancy. Instead of raking/blowing leaves, use your mower with a mulching blade to add organic matter to your lawn. The preferred length for grass in winter is 1.75 inches.

Lay tall fescue sod rather than seeding it. (The weather needs to be warm for the seeds to germinate. Some seeds won't germinate until next spring, making it hard for the new grass to survive next summer.)





What Works!



By Kathy Kohl

There is still so much left to do in the yard and garden but I am one of those motivationally challenged people when the outside temps dip to low sweater weather and the wind w a r d frosty nip and win-

It Ain't

Newly perenni-harsher d o w n with a

Alumi-be used as aphids shy away from, and it will add a little solar heat to the garden on cold, gray winter days. Don't forget to perforate with holes for water ventilation and to recycle it when it's removed from the garden.

And did you know a bar of Irish Spring hung here and there in the garden will repel hungry deer?

Compost It

When collecting compost materials, don't forget birdcage cleanings, cat litter (unused), soured milk, dry dog and cat food, coffee waste and tea leaves.

One of the best compost activators is alfalfa meal and can be purchased as "Litter Green" kitty litter or pelletized rabbit food. A handy method for composting your kitchen waste is to keep the refuse in a double bagged plastic grocery sack secured with a twisty in the crisper until your next trip to the composter. The grocery sacks are tossed in the trash afterwards but were reused at least one more time!

This 'N That

Many gardeners who practice astrological gardening believe the best time to prune grapes and muscadines is during the rule of Capricorn (December 22-January 20), at the second quarter moon. It is believed the

takes on that "bite". But on-through the fog...and rain...and we gardener types go to tidy up terize.

Always Pretty

planted shrubs and tender als can be protected from conditions under upside Styrofoam coolers weighted brick or large rock.

num foil can mulch that

vines will be stimulated to reach upward towards the knees of the celestial goat and the grapes will grow more round and juicy like a plump watery moon!

When mailing those ies pack them in unsalted keep them from crumbling.

To reduce the soot from place by two-thirds, throw of salt on the logs occasion-whether for the fireplace or a most fragrant firestarter made by dipping a pinecone wax and pressing a piece of into hardened wax as it cools.

ning to smell a lot like

holiday cook-popcorn to

your fire-a handful ally. And,

the campfire, can be simply in melted bees-candle wicking

Isn't it begin- Thanksgiving?

Ouch!

Gloves or no, my hands take a beating and I frequently get splinters. Soak the injured area for a few minutes in cooking oil for easier removal of the minuscule invader. Applying an ice cube over the splinter for a few minutes will numb the area for painfree removal.

We try not to injure our trees and shrubs with nails but, when this just can't be avoided, always keep in mind that copper nails will kill the tree, so only use aluminum ones. These will cut in two more readily if hit by a saw blade later on down the road.

By The Light Of The Moon

The *Farmer's Almanac* suggests the following November gardening dates for maximizing your results:

Plant root crops November 19, 20

Plant aboveground crops

November 10, 28, 29

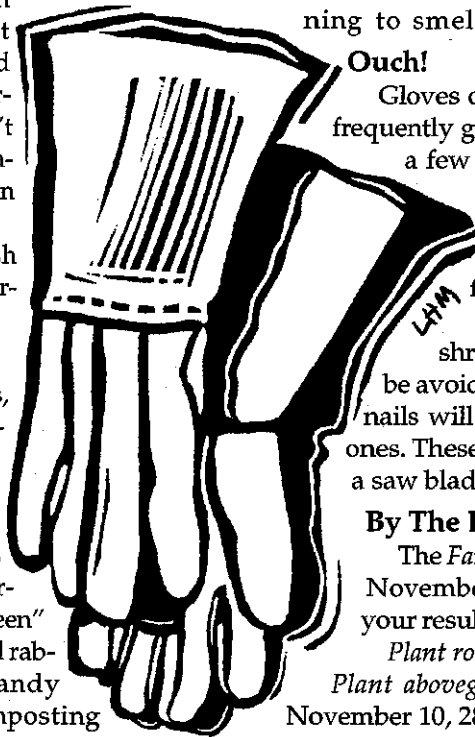
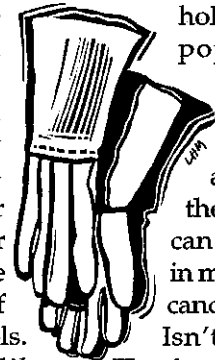
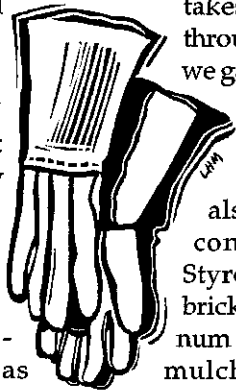
Prune to encourage growth November 8, 9

Pruning to discourage growth November 17, 18

Until We Meet Again

Keep those ideas and bits of coming my way. You can reach lows: (e-mail) kohlk2@juno.com; 376-4552; (U.S. Mail) P.O. Box Little Rock, AR 72225.

And to gardeners everywhere, have a warm and wonderful Thanksgiving season!



wisdom me as follows: (phone) 250524,

Next Year's Vegetable Garden Plot

By Carl Goodson

Now is the time to plan and prepare the plot for next year's vegetable garden. In planning, the objective is to select the best possible place for the garden. In preparing, the aim is to have the plot in readiness for planting of early vegetables, some as early as February.

Select a plot by estimating several factors: drainage, fertility, sunshine, protection from wind, tilth, access, and water availability.

Drainage can be observed in a rainy season by more than a slight slope usually of excess water. Drainage can be enhanced by incorporating sand, into

Drainage can be enhanced by incorporating sand, into

solution is raised beds. or cross ties enough to the bed 6 to 12 inches above the surrounding area will keep excessive water away from most roots.

The first year, and every third to fifth year thereafter, a soil test will tell you what to do to have the maximum fertility. The soil sample, taken from below the surface and thoroughly mixed and measured to include about a pint, should be taken to the County Extension Office at once. This is the time that the soil testing is not as much in demand. Then follow the recommendations of the printout report.

As much sunshine as possible is needed for a good vegetable garden. The plot will tolerate some shade from the afternoon sun, but vegetables, unlike some flowers, do not care for shade.

A solid wall on the north side of the plot is the best protection from wind damage. Few American gardens are so protected. The next best protection can come from a thick hedge or a tree plantation. Least protection will be provided by a wall of fabric on the windward side of the plot.

Something should be done every year to improved the tilth, or the workability of the soil. Well processed compost should be added

every year. Pile all the tree leaves you have on the site before leaving the garden. They can be spaded or plowed in a month before planting begins, or they can be removed to the compost pile for further processing. Of course, stones large enough to stop the tines of a tiller must be removed. Stones smaller than a hen's egg can be left in the soil. These actually improve the tilth.

Access to work the garden is important. Consider permanent paths. Paths which are pounded down by the feet spare the growing area from being compacted unnecessarily. Some gardeners have discovered that curving permanent paths actually provide more planting space and put the gardener closer to the beds for working. And they are more pleasing to the eye than straight paths. Paths may be covered with any good mulching material, however, the kinds that compost are best.

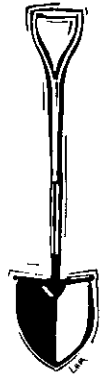
The vegetable garden needs about an inch of water a week during the growing season. If rain comes to that level, it is best. But the site needs to be thoroughly watered if rains fails. Vegetables like the water which percolates down to the roots; they are not fond of water on the foliage. Consequently, soaker hoses on or under the

surface supply the needed moisture. If an overhead sprinkler is the irrigator of choice, start it as soon

as the garden is in shade, then turn it off as soon as the desired amount has been

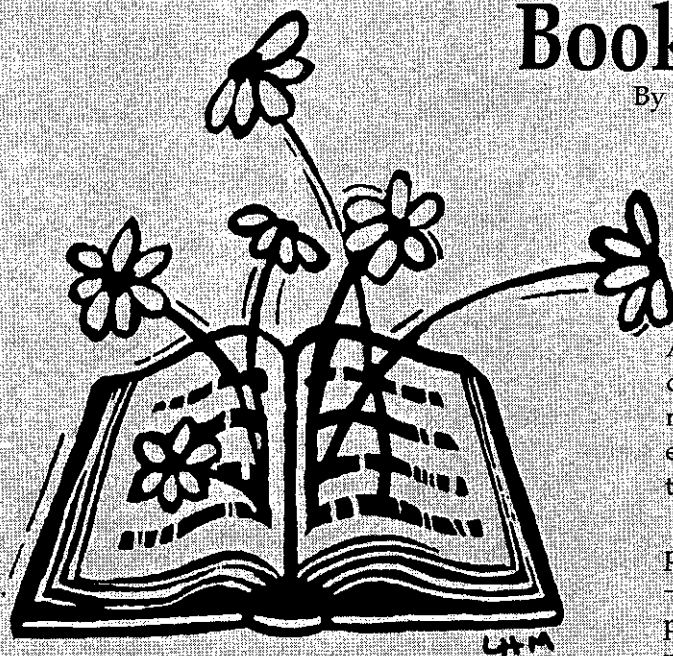
delivered.

A well planned site can be a thing of beauty as well as a food factory. Consider planning and preparing the site as soon as you can — then it will be ready when planting time comes. *



Book Review

By Lois Clifton



One of the greatest pleasures of gardening is choosing the plants you would like to have. This encyclopedia has over 2,000 color illustrations with descriptions of more than 7,000 species which are grown outdoors in the garden.

The text is precise and arranged in alphabetic order of the generic plant names, with A - Z cross references included. For the most part, the names are in Latin form. The various species cultivated in each genus are described, telling what characteristics distinguish them from each other.

There is a glossary which explains the terms used.

The Concise Encyclopedia of Garden Plants

By Kenneth A. Beckett

London, Orbis Publishing, 1983

Also, some arithmetic symbols are used — signs for different types of hybrid. The multiplication sign (\times) means it is a hybrid that is a cross between two different plants. A plus sign (+) indicates a graft between two different genera.

The use of a botanical name provides a name for the plant which will be understood throughout the world — a generic name and a specific name. Beckett compared this to a person's first and last names, the first name being generic and the last name being specific. I think this will help me remember plant names better. Many of the plants have familiar names, although some are rarer. But all have decorative assets which should help us grow different things in our garden.

Kenneth A. Beckett and his wife maintain a one-acre garden in North Norfolk, which has more than 2,500 plants in it. A keen botanist, the author has traveled widely to study garden plants in their native habitat and has written several books and hundreds of articles on plants. I hope you will enjoy this book, which is full of information, and that you will enjoy growing some of the described plants in your own garden. *

Traveling Exhibit Explores American Gardening Tradition

This traveling exhibit explores the history, rebirth and preservation of the American gardening tradition. In it, five majestic American gardens that declined and were subsequently revived are showcased through period photographs, reproductions of design plans, correspondence between landowners and gardeners, period magazine and newspaper articles, and images from seed and plant nursery catalogs.

In the show, each garden's aesthetic, organic and functional evolution is traced through the 20th century. Featured gardens include Thornewood in Tacoma, Wash.; Beacon Hill in Newport, R.I.; The Moorings in Grosse Pointe, Mich.; Shirley Plantation on the James River near Richmond, Va.; and Weld in Brookline, Mass.

Throughout history, magnificent gardens have always been essential adjuncts to luxurious estates, but these featured plots fell into neglect as their owners battled hard times caused by the Great Depression, changing tax laws

and the rising costs of maintenance, labor and insurance. Decades later, hard-working community gardeners and concerned owners renovated these five decrepit gardens into horticultural showplaces.

"Exploring Garden Transformation, 1900-2000" draws from the collections of the Smithsonian's Horticulture Services Division, primarily its Archives of American Gardens. From photographic images of elegant retreats in the Northeast to those of villas on the West Coast, the collection offers a unique perspective on the regional history of landscape design. The hand-colored slides from the Garden Club of America's slide lectures of the 1920s and 1930s are the highlight of the collection, which spans the 20th century. It was during the '20s and '30s that landscape architects, garden owners and garden clubs began to actively document the grounds of large private estates. The exhibition includes reproductions of these beautiful

See Exhibit, continued on next page

southern grasses. The sixth, turf-type tall fescue, is a northern grass which is recommended for shady areas in central Arkansas. Fescues like it cool and humid, and tolerate dry, infertile, acid soils with pH of 5.5 to 6.5. Some are very wear-tolerant.

Tall fescue turf grasses are usually sold as a blend of three or four cultivars which work well together, or perhaps as a mixture of tall fescue, creeping red fescue, and/or chewings fescue. Tall fescue is characteristically deep-rooted, wide-bladed, clump-forming grass which has no runners to help it spread. It grows by adding "tillers" to the original little bundle of grass blades. (If you've ever steered a rowboat, you remember the shape of the tiller.) Creeping red fescue spreads by rhizomes. Chewings fescue is a fine-leaved bunch-type grass. Fescue lawns stay green all winter, but require two inches of water a week in hot weather, and die back without it. Annual overseeding in fall will often be required.

The first southern grass plot is St. Augustine, a coarse, thick-leaved turf grass that likes a light soil (pH 5.5-6.5), tolerates full sun to light shade, needs frequent watering in very hot weather, and spreads by above-ground runners (stolons). Mowing high and raking help control thatch. It is not available as seed, and may be susceptible to chinch bugs and disease. Although it is recommended for Zones 8 and 9, it is praised by many local residents here in Zone 7. An Indianhead Lake area resident has enjoyed his St. Augustine lawn for 30 years, giving it regular watering and fertilization, especially in fall to help it survive freezing temperatures.

The common Bermuda grass lawn at the county office grows well with slightly acid soil (pH approximately 6.0), full sun, and twice-weekly watering. Jim Bowling has followed the weed control schedule begun by Boon-Nam. There is a demonstration plot of Tifgreen Bermuda, one of the Tifton sterile hybrids developed to control seed production and thereby reduce Bermuda invasiveness. It can only be reproduced vegetatively, and requires sprig, plug or sod planting. Hybrid Bermudas like Tifgreen have more reliable dark green color and coverage than common Bermuda. Tifgreen is used for high maintenance turf like golf greens. It requires one half to three quarter inch mowing height, and needs a special mower. Common Bermuda should be mowed to one or one and a half inch height.

By the circle garden are three popular zoysia grasses growing in full sun and light shade. Zoysias spread both by stolons and rhizomes like Bermuda grass, but so slowly that weeds can take over, so sodding zoysias is practical labor-saving. Temperatures of 50 to 55° cause them to begin turning an even light brown, which is not a problem if all your neighbors have zoysia lawns, and you won't miss mowing during a long dormancy. Overseeding for winter color won't work well on dense zoysia lawns.

Guy found the three different zoysias at three different locations and heard praises about the cultivar he was

getting at each place, and also the shortcomings of the others. Going west to east, he planted Zoysia El Toro, Zoysia Z52 (Meyer zoysia grass), and Zoysia Matrella (Manilagrass). In that order, they range from wide-leaved and coarse-textured to fine-leaved and soft. All zoysias withstand foot traffic well, except during their dormant period. *

Exhibit, continued from page 6

glass slide garden images, as well as reproduction of design plans, archeological remains, old magazine articles, garden lecture scripts, correspondence and oral histories. These resources not only show us the gardens as they were in their heyday — they also serve as records to help people preserve and re-create that beauty. The stories of such renowned private gardens as Beacon Hill, Weld, Shirley Plantation, The Moorings and Thornewood provide glimpses of how and why garden transformations have occurred.

This is the first in the American Garden Legacy Series and will be on exhibit September 30 - November 17 at the Smithsonian's Arts and Industries Building. It will begin its national tour January 13 at Longwood Gardens in Pennsylvania. It will travel through 2005 to historical and botanical gardens across the United States.

The exhibition schedule is being developed and can be checked at <http://www.si.edu/sites/exhibit/garden.htm>. *

Checklist, continued from page 3

Who Is Bugging You?

Check for pests before moving tropical plants indoors (before nighttime temperatures reach 45 degrees).

Cabbage loopers (green caterpillars) can be easily controlled on broccoli, cabbage, cauliflower and collards using any *Bacillus thuringiensis* (Bt) product.

Fall webworms look unsightly, but do little damage to trees. Control with Malathion, Diazinon or Cygon.

As the temperatures cool, dormant or horticultural oil should be sprayed to control scale, whiteflies or other persistent pests on fruit trees, camellias or other ornamental shrubs. Control white peach scale with oil such as Volck, ornamentals with Cygon. Treat fruit trees again with dormant oil after fall leaf drop.

Cut out borers from dogwoods and roses. Be sure you cut back past where there is any hole in the stem.

November Bloom

Asters, ornamental cabbage, camellias, chrysanthemums, clerodendron, dahlias, English daisies, dianthus, dogwood, euonymus, eupatorium, gaura, ginkgo, ornamental grasses, gums, oakleaf hydrangea, kale, larkspur, maples, poppies, roses, rosehips, snapdragon, solidago, sourwood, stock, torenia, tricyrtis, verbena, viburnums, viola, Virginia creeper, wallflowers and witch hazel. *

MG Alert!

2001 International Conference

Even more proposed Master Gardener course topics are:

Pruning techniques

School site gardens

Herb gardening: from patch to plate

New foliage plants for the home and office

Vertical gardening (trellis and arbors)

Tools of the trade and garden gadgets

Do-it-yourself micro irrigation

New Books In Library

The Arkansas Democrat-Gazette has donated the following books to the PCMG Library:

The Handbook on Plumeria Culture

Water: A Practical Guide to Using and Conserving Water in the Garden

The Low-Maintenance Garden

New Master Gardener Reception

The November 14 meeting will be a get-acquainted reception for the new Master Gardeners. Be sure to wear your name tag, and come meet and greet a lot of new friends.

Holiday Party

Monday, December 11, is the Holiday Potluck. Mark your calendar!

Committee Notebooks

Project Chairs, remember to get your notebooks up to date.

New Projects

The Futures Committee has recommended two new projects which will be consulting participation rather than doing the actual work.

1. *Habitat for Humanity*: Master Gardeners will serve as resource people to train homeowners to maintain the outside of their new homes (shrubs, grass, vegetable garden, etc.)

2. *School Grounds*: Master Gardeners will show and tell students how to grow plants.

Plant Labels

There are metal label holders for the projects. These will identify which plants are in the project and where they are planted. There are 400 free for the projects available at the next monthly meeting, or come by the

See *MG Alert!*, continued next column

Dig In Here ...

Does a gardening/horticultural problem have you stumped? These resources can help you solve nearly any gardening dilemma:

Pulaski County Cooperative Extension Service Office

2901 West Roosevelt Road
Little Rock, Arkansas 72204
340-6650

bphelps@uaex.edu

Arkansas Cooperative Extension Service Office

2301 South University
Little Rock, Arkansas 72204
671-2000

Pul. Co. Horticultural Hotline

340-6660

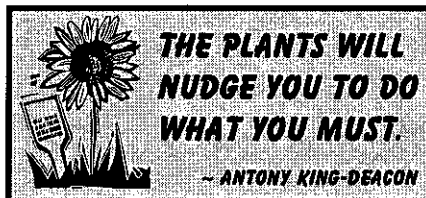
University of Arkansas Cooperative Extension Service

Website: <http://www.uaex.edu>

MG Alert!, continued from previous column county office. Six hundred are available for sale to individual Master Gardeners, 3 for a \$1, on a first-come, first-served basis.

Reminder!

Turn in your hours. Get caught up on reporting the time you have spent on projects, education, and community work. *



Trading Post

By Frances Young

Martha Thompson, 663-2373, wants liriopse and other shade perennials.

Carolyn Goettsch, 835-8522, has liriopse.

Dolores LeCompte, 664-4795, wants someone to build an eight foot arbor and a cold frame.

Joan Humphries, 280-9023, wants barberry shrubs.

Helen Hronas, 228-5680, has kerria japonica. *

Spread The News!

If you have an item of interest or a newsworthy photo, or need to tell the general membership something about your committee, this newsletter is your opportunity to reach all Pulaski County Master Gardeners.

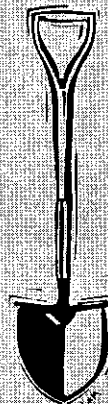
Please provide your information to us by the second Tuesday of November to see your message in the December issue of the newsletter.

You may bring your information to the meeting or send it via: Beth Phelps, Pulaski County Cooperative Extension Office, 2901 West Roosevelt Rd., Little Rock, AR 72204, 340-6650, bphelps@uaex.edu; Mrs. McKinney, 340-6650; Rose Hogan, 374-9429, rhogan@aristotle.net; or Cheryl Kennedy, 753-8192, fax 753-6305, and inthegarden@aristotle.net.

If you have late-breaking news unavailable by the closing date, Beth may be able to add it to her letter that is mailed with the newsletter. *

Master Minutes Staff — 2000

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Co-Chair/Layout	Cheryl Kennedy
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	Ellen Rouch
	Phyllis Rye
	Libby Thalheimer
	Linda Westergard
	Laura Anne Wilson
	Lynne Woods
	Frances Young



Pulaski County Master Gardener Volunteers are trained volunteers working with the University of Arkansas Cooperative Extension Service and Pulaski County Government to provide demonstration gardens and horticulture-related information to the residents of the county. In 1999, these volunteers gave more than 7,000 hours of service.

Elisabeth J. Phelps
County Extension Agent — Agriculture



Happy Holly Days!

By Rose Hogan

According to an old English tradition, even the humble honeybee must be wished a Merry Christmas. Every hive should be ornamented with a sprig of ruby-berried holly.

The colonial and frontier Americans decorated with fresh evergreens, ropings of fragrant pine, white candles, fruits, cones and berries that provided nature's own bounty and colors to the joyous celebration of the season.

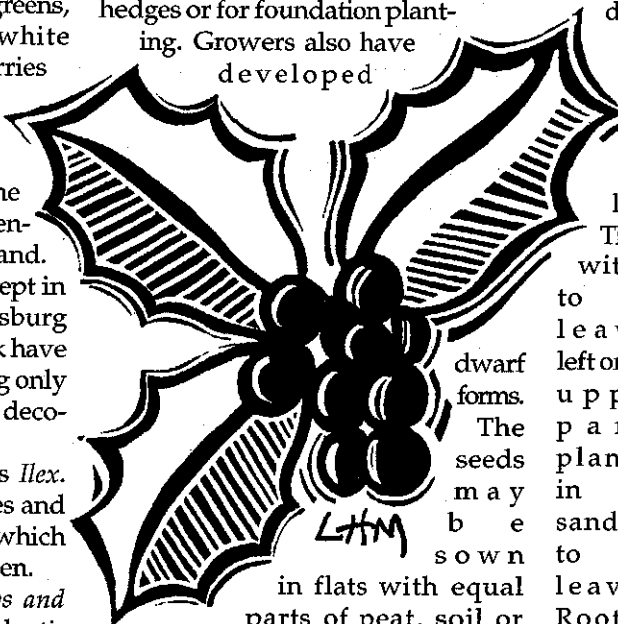
Many of these plants were the same that the immigrants had enjoyed in their original homeland. Holly is native worldwide except in Antarctica. Colonial Williamsburg and Old Washington State Park have preserved this tradition of using only natural materials in Christmas decorations.

Hollies belong to the genus *Ilex*. There are more than 800 species and selections in cultivation, 30 of which are deciduous and 780 evergreen.

R.A. Vines in *Trees, Shrubs and Woody Vines of the Southwest* identified the yaupon and the American holly as native to Arkansas. They are evergreens that grow in low, moist locations. Flowers bloom in April through May or June, producing fruit in November through December. The leaves are variable in shape and size. The fruit is spherical or ellipsoid, mostly red, and more rarely yellow or orange.

Propagation

Yaupon holly is often cultivated for ornament because of its bright red drupes and evergreen leaves. Because of its tight, compact foliage and tolerance of shearing, it is used for hedges or for foundation planting. Growers also have developed



dwarf forms. The seeds may be sown in flats with equal parts of peat, soil or sand, covered about 1/4 inch and kept moist by spreading leaf mulch or by sprinkling. Because of a somewhat dormant embryo, all do not germinate at once, so it is a good plan to hold the flat over at least a second year for the slower germinating seeds.

For seed, gather American holly fruit by hand. Remove the pulp by

running fruit through a hammer mill and allow the pulp to ferment in warm water. Then remove the pulp by rubbing it on a screen and floating off the mush. There are about 35,000 seeds per pound. They are dried before storage or planting. Stratifying in layers of sand or soil may pretreat the seed.

All hollies can be grown from cuttings in damp sand or peat. Terminal twigs taken in late July to August are suitable. They should be 3 to 5 inches long

with 2 to 5 leaves left on the upper part, planted in the sand up to the leaves. Rooting takes 60 to 90 days.

American holly can be grafted, and bud-
See Holly, continued on page 8

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Arkansas Is Our Campus

December and January Calendar and Notes

December

On December 2 at Mount Nebo State Park, Dardanelle, there will be a *Winterbird Workshop* 10 a.m. - 2 p.m. Learn how to attract winter birds to your backyard, build a nesting box, and make a bird feeder.

Contact Mount Nebo State Park at (501) 229-3655.

A *Perennial Beds and Cold Frames Workshop* will be held December 6-8 at the Ozark Folk Center. Tuition is \$40 per day, and preregistration is required. Call (870) 269-3851.

Monday, December 11, is the date for the *PCMG Holiday Party Potluck*. It will be held at the North Little Rock Burn's Park Hospitality House. It starts at 6 p.m. with a social time, and dinner will be potluck at 6:30. The cost is \$6.50, which covers meat, utensils, drinks. Make checks payable to Pulaski County Master Gardeners. Reservations must be made by December 7. For more information, see "MG Alerts" on page 7.

The Ozark Folk Center will have a *Progressive Organic Greenhouse Workshop* December 12-15. Preregistration is required. Call (870) 269-3851.

On December 16 at Pinnacle Mountain State Park is the *Frozen Feathers Annual Winter Bird Count*. Contact Neil Curry at (501) 868-5806 to participate.

Attend *Lake Ouachita Eagle Weekend*, December 16-17, at the Lake Ouachita State Park. Admission is \$5.89 for adults and \$2.95 for children 6-12. Contact James Wilborn at (501) 767-9367.

January

Other eagle programs are: January 20-21 *Eagle Awareness Days* at Petit Jean State Park (501) 727-5441, and reservations are required for the *22nd Annual Eagles Et Cetera Weekend* January 26-28 at DeGray Lake Resort State Park (501) 865-2801.

February

Pine Bluff Lawn and Garden Show, February 10, at the Fairgrounds Exhibit Hall. Contact Lisa Holland at (870) 535-2900.

On February 17, there is another *migrating waterfowl and bald eagle watch* at DeGray Lake Resort State Park. Reservations for the boat tour can be made Friday, February 16, by calling (501) 865-2811.

March

The Arkansas Flower & Garden Show is March 2-4 at the Little Rock Convention Center. More information will be available soon, or contact the Pulaski County Extension Office, 340-6650.

March 25-27, *State*

Master Gardener Conference

at Fort Smith. Check the uaex.edu site or call 671-2000 for more information.

May

The *International Master Gardener Conference* will be May 29-June 1 at Lake Buena Vista, Florida. See the "MG Alerts" on page 7 for more information.



Checklist For December And January

By Libby Thalheimer

Add On

Apply lime to lawn, if needed, in December or January. In mid-January, fertilize trees. Remember to fertilize pansies regularly all season during any warm spell.

Consider turning cover crops into the soil with a fork or tiller during the middle of January. This will give the green materials time to break down and enrich the soil before planting time.

Water your yard regularly, especially before a heavy freeze. Don't saturate plants — just moisten them.

Cover Up

Cover tender plants and bare areas of your yard with pine needles. Pine needles can easily be raked up in the spring. Add a 6- to 8-inch layer of leaves, pine needles or hay to beets, turnips, radishes, parsnips and other root crops so the vegetables can be harvested as needed. Mulch kale and spinach with pine straw. Although growth will stop in cold weather, it will resume in spring, producing greens into May.

Wait until the first hard freeze to apply mulch to prevent alternate thawing and freezing. Mulch lilies with well-rotted or dehydrated manure.

Protect cold-sensitive plants from a freeze with a box, blanket, burlap or a sheet. If you use plastic, support it to prevent contact with the plant. Wrap the grafts of tender young fruit trees with towels or with about ten sheets of newspaper.

Dig In

Plant tulips early in December. After Christmas, pot up amaryllis bulbs in a warm, sunny spot and water sparingly until growth starts. The amaryllis will bloom by Valentine's Day.

Prepare soil for new beds by adding compost, manure or other organic matter. Tree, shrubs and perennials may be moved in late January, any time soil is friable enough. January is a good time to plant winter-blooming shrubs like winter honeysuckle (*Lonicera fragrantissima*) or winter jasmine (*Jasminum nudiflorum*).

Start broccoli and cabbage seeds indoors in January

for transplanting 6 to 8 weeks later. The latter part of January is the ideal time to plant poppies and sweet peas.

Get Rid Of

Use Atrazine or Simazine on warm-season turf grasses for preemergence and/or post-emergence control of annual bluegrass and selected winter annual broadleaf weeds. Remove thatch with a vertical mower. Control thatch by top-dressing turf with a one-quarter inch layer of topsoil.

Spray broad-leaved evergreens (hollies, photinia and euonymus), if infested with scale, with dormant oil just before bud break.

Plan Ahead

Since you can't garden now, start planning for next season. Plan changes, additions or corrections to your garden. Garden catalogs and seed books are good sources for hard to find items. Order seed for early planting.

This is the time to take inventory of your tools, mower, spraying equipment, hose attachments and pressure sprayers. Clean, oil, repair and sharpen your garden tools before putting them away for the winter. Put linseed oil on wooden handles. Restock flats, stakes and labels. Make necessary repairs to cold frames.

Weed Out

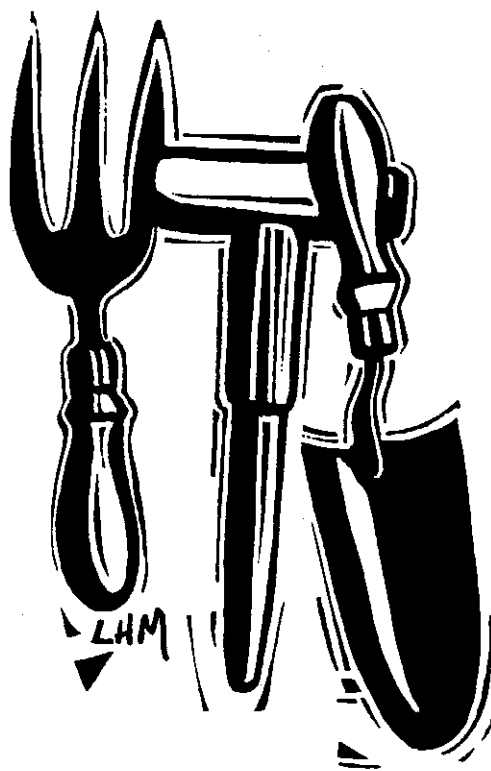
December is a good month to remove plants that aren't thriving in their current locations. Try to ascertain the reason for the lack of success. Often it's a matter of planting depth, or an over-accumulation of mulch, or a diseased root system.

Remove dead stalks and other debris. Destroy any infested material but add the rest to your compost heap. Remove fallen leaves that may smother grass and plants. Cut back frost-nipped perennials now, but leave 2- to 3-inch stalks to help you locate dormant crowns while planting other things in early spring.

Winter Over

Place houseplants in a sunny location to keep them in good condition through winter. Check plants weekly to ensure the soil is moist. Dry, heated air will damage the leaves, so keep them away from vents.

See **Checklist**, continued on page 7





What Works!



By Kathy Kohl

'Tis' the season for family ... eating ... sharing ... eating ... friends ... eating ... hibernation ... oh, and did I mention eating? Yard work is a great way to shake off the resulting holiday poundage, and currently I am mentally doing just that as I contemplate the great outdoors from within the comfort of my toasty warm indoors.

It's A Compost Thing

Kitchen composting can pose some challenges, no matter what the season. Plastic gallon containers such as an ice cream tub work great for collecting food scraps but, no matter how well you wash and deodorize, after a while the smell of garbage doesn't go away.

Time to pluck a fresh container from the recycling bin and place Mr. Stinky on the curb for the next pickup.

If your needs call for something a little bigger, use a 5-gallon bucket with a good fitting lid and line it with a brown paper grocery sack. You can toss liner and all into the outside composter.

And while we are on the subject of composters, from the Saline County Master Gardeners comes a great idea for a homemade "low-tech tumbling composter". Drill holes around the sides of a dark colored plastic trash can with the flip up handles for holding the lid snugly in place. Put composting materials inside and every few days turn the can on its side and roll it around the yard. Sounds like this would be good exercise, too.

To beautify an otherwise not so attractive compost heap, build a wall around three sides with ornamentals such as tall sunflowers and asters and climbers such as morning glories, moon flowers and honeysuckle, leaving one side open for your easy access. Your non-composting neighbors will love you for it and you'll enjoy it, too!

The Sole Of A Gardener

Do the bottoms of your feet ever feel like they have stone bruises after a day of heavy shoveling in the garden? Cut a piece of old garden hose to the needed length, slit it open lengthwise and glue it

across the edge of your shovel or garden fork where you place pressure with your foot. This softens the edge and adds a nice cushion.

This 'N That

Finally, a great use for those paper towel tubes. Cut the tube into 2-inch sections and place around veggie seedlings, creating a biodegradable collar. Make sure it is pushed at least 1/4 inch into the soil to keep out pesky stem-chewing pests.

Vinyl mini-blind slats cut into pieces make dandy plant labels for use in the garden or seed trays. One mini-blind can provide a lifetime supply of label sticks.

And don't throw away that old bamboo dish drainer. Dismantle it and use the wood slats as small garden stakes.

When reusing a pot, it is important to clean it thoroughly to rid it of any disease organisms that might be present, before you replant. A recommended method for doing this is to scrub the pot first with an abrasive sponge or wire brush to remove dirt and other debris and then soak for 10 minutes in a 10 percent bleach solution. Be sure to rinse thoroughly.

By The Light Of The Moon

The Lunar Gardening Guide gives the following December gardening dates for maximizing your results:

Plant root crops: *December 12, 13, 18-22*

Plant above ground crops: *December 3, 4, 8, 9, 25-27, 30, 31*

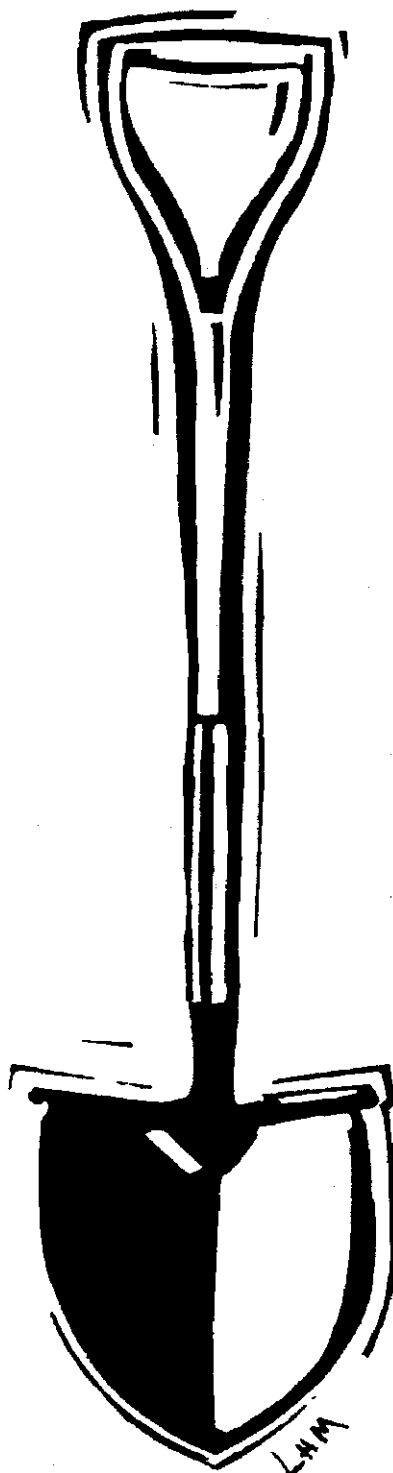
Pruning to encourage growth: *December 3, 4, 8, 9, 25-27, 30, 31*

Pruning to discourage growth: *December 12, 13, 20-22*

Until Next Year...

Regardless of your holiday customs, I wish you one and all a wonderful season and the best in the upcoming New Year.

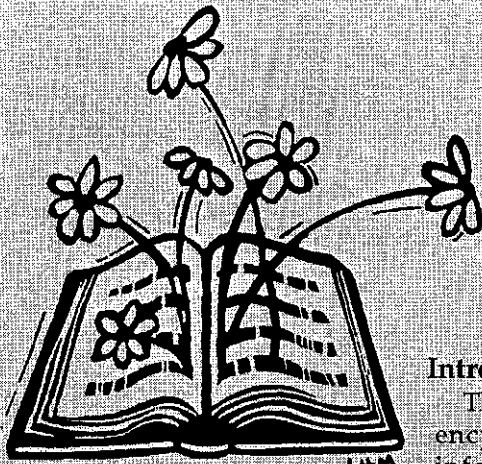
If you have any ideas and bits of gardening wisdom you would like to share, I want to hear from you! You can reach me as follows: (e-mail) kkohl2@juno.com; (phone) 376-4552; (U.S. Mail) P.O. Box 250524, Little Rock,



AR 72225-0524.

Book Review

By Ellen Rouch



Plant Propagation:

The Fully Illustrated Plant-by-Plant Manual of Practical Techniques

Edited by Alan Toogood

Alexandria, VA, The American Horticultural Society, 1999

Introduction

This book is an encyclopedia of information on propagating all forms of plants. The book begins with a thorough introduction. The author's premise is that understanding the way plants grow and reproduce will enable gardeners to propagate plants with ease.

The topics discussed in the introduction are: the mechanisms of sexual (seeds) and asexual (cuttings and layering) plant reproduction, tools and equipment necessary to propagate plants, various types of soil and soil mixes, other growing media, plus propagation in different climatic zones, the propagation environment (various types of covering and cloches), making hot beds, greenhouses and shading. The introductory chapter ends with a chart listing various problems and controls for common propagation problems.

Trees

The next section is an extensive section dealing with propagating garden trees. A common method to propagate ornamental trees is by taking cuttings or seeds. However, seed-raised trees take twice as long to reach flowering size as those propagated by

vegetative methods. The book has several photographs illustrating how to take and root cuttings from trees. It has an extensive section on budding and grafting fruit trees. It also describes how to propagate cycads and conifers. The chapter concludes with a section on propagating the A-Z of garden trees.

Shrubs And Climbing Plants

Shrubs and climbing plants is the next topic. The rooting of cuttings is the most common method of propagating shrubs and climbers. There are subsections for roses and heathers. Again, the chapter ends with an A-Z of shrubs and cutting plants.

Other Topics

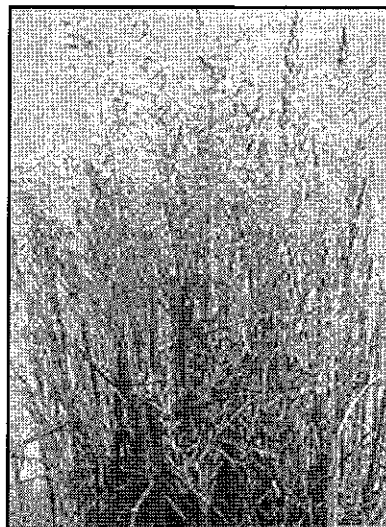
Other topics which are covered are: perennials (where division is the most common propagation technique), annuals (where seeds are the most common propagation technique), cacti, bulbous plants (seeds are recommended to propagate), and vegetables.

I find that this book is a valuable reference. It contains several color photographs illustrating techniques. Each chapter concludes with the A-Z section listing different plants within the chapter topic and explaining the recommended propagation techniques for the particular plants. *

2001 Perennial Plant Of The Year

The Perennial Plant Association has announced that the 'Karl Foerster' cultivar of the feather reed grass (*Calamagrostis x acutiflora*) is its selection for the 2001 plant of the year. This popular cultivar has long been prized for its ornamental attractiveness, versatility, and minimal maintenance requirements.

Hardy through USDA Zones 4 to 9 and heat tolerant in AHS Zones 9 to 5, 'Karl Foerster' is an erect, clump-forming grass suitable for sites in both full sun and part shade. It thrives in moist, humus-rich soils, but is tolerant of less favorable conditions. Plants form clumps about two feet in diameter and spread slowly by underground rhizomes.



The vertical growth habit includes a tight clump of slightly arching foliage 2 to 3 feet tall and flower stems to 5 to 6 feet in height topped by airy panicles of pinkish bronze flowers in mid to late summer. These inflorescences gradually fade to pale brown but often persist into winter.

To create a dramatic effect in the landscape, it is recommended that the cool-season 'Karl Foerster' be combined with herbaceous perennials that bloom in late summer and fall, such as fall asters (*Aster* spp.), coneflowers (*Echinacea* spp.), gayfeathers (*Liatrice* spp.), and black-eyed Susans (*Rudbeckia* spp.).

'Karl Foerster' is widely available through mail-order nurseries. *

Welcome —And Congratulations — New Master Gardeners!



Our Master Gardeners in the Fall 2000 class have been hard at work learning about all kinds of plants and soils, and they'll get to test their mettle next spring as they work on community gardens and answer questions in the phone center. Veteran MGs, get to know these new gardeners at the Christmas potluck and as they join your committees next spring — there are lots of new friends to be made in this enthusiastic group! Here, new MGs share their favorite plants and gardening tools.

Master Gardener	Plant	Gardening Tool	Master Gardener	Plant	Gardening Tool
<i>Janie L. Ballard</i>	Lantana	Backhoe	<i>Carol F. Mendel</i>	Loropetalum	Hand spade
<i>Phyllis J. Barnett</i>	Impossible to choose	Gloves	<i>Karen Miller</i>	Roses	Garden claw
<i>Pat Boggess</i>	Roses and camellias	Cotton chopper	<i>Linda G. Moyer</i>	Coneflowers	Spading fork
<i>Judy Bradsher</i>	Changes with the season	Trowel	<i>Michael Moyer</i>	Ornamental evergreens	Shovel
<i>Maryanne Bransford</i>	Hosta	Rake	<i>Sally Naucke</i>	Hydrangea, peony	Lopping shears
<i>Bobbie Buchman</i>	Azaleas	Trimmers	<i>Ila Newberry</i>	Hibiscus	Spade, lawnmower
<i>Davies B. Campbell</i>	Azaleas	Pruning shears	<i>Roberta Peterson</i>	Purple Coneflower	My hands in the good ole dirt
<i>James J. Cokeley</i>	Azaleas	Hoe	<i>Lynn Phelps</i>	Low maintenance plants	Pruners
<i>Sara B. Dawson</i>	Nandina	Turning fork	<i>Linda Rafferty</i>	Tomatoes, esp. at supper	Gloves
<i>Oneal Dedman</i>	Crape Myrtle	Hand trowel	<i>Susan Reasoner</i>	Lilies, impatiens	Sharpshooter (shovel)
<i>Trish Dixon</i>	Roses	Hand spade	<i>Wendell Redmond</i>	Gardenia	Hand cultivator
<i>Freida Duren</i>	Roses	Small pick	<i>Helene Rush</i>	Lilies	Trowel
<i>Beverley J. Foster</i>	Violas	Big plastic containers to mix soil	<i>Peggy Schock</i>	Nasturtium	Swan-neck triangular hoe
<i>Tricia Haney</i>	Azaleas	Hoe	<i>George Simpson</i>	Crape Myrtle	Rake
<i>George A. Harper</i>	Daylily	Hoe	<i>Helen Simpson</i>	Roses	Rake
<i>Peggy Harris</i>	Mimosa Tree	Gloves	<i>Belinda Smith</i>	Roses	Shovel
<i>Sharl Delon Hill</i>	Dahlias	Pruning shears	<i>Don Smith</i>	Dogwood	Lawnmower, chain saw
<i>Jean Kuelzman</i>	Foxglove	Hoe	<i>Wayne Starnes</i>	Roses	Claw, spade
<i>Jan C. Lineberry</i>	Variegated Solomon Seal	Hands	<i>Howard Stephens</i>	Tomato	Troy-Bilt tiller
<i>Shannon D. Lloyd</i>	1st plant I ever purchased: a philodendron	Gas-powered cultivator	<i>Merilyn Tilley</i>	Hardy fuchsia	Double-ended trowel
<i>Bill Lovett</i>	Lily	Long shovel	<i>Walter Tucker</i>	Ferns, wildflowers	Bypass pruners
<i>Sharon E. Mayes</i>	Hosta, roses	Hoe	<i>David Walker</i>	Roses	Shovel
<i>Nancye K. McCowan</i>	Lots	My hands	<i>Adrian Williamson</i>	Gardenia	Fork and hoe
<i>Mitchell McDaniel</i>	Pineapple Sage	Dibble	<i>Elana Wills</i>	Iris, bleeding heart	Small, stong trowel
<i>Pat McDonald</i>	Oakleaf Hydrangea	Shovel	<i>Jackie Wright</i>	Cushion mums	Little clippers
<i>Joi McLelland</i>	Azaleas	Spade			

Master Gardener Alert!

Winter Holiday Potluck

Everyone should have received the announcement, but, just in case, here are the details: Our winter holiday potluck get-together will be held Monday, December 11, at the Burns Park Hospitality House in North Little Rock. Arrive at 6 p.m. for the social time and dine at 6:30.

Reservations are required prior to December 7. Send a check for \$6.50 per person to Mrs. McKinney, Pulaski County Cooperative Extension Office, 2901 W. Roosevelt Road, Little Rock, AR 72204.

Meat, drinks, and bread will be provided. According to your last name, please bring a food item in these categories:

A-C Dessert

D-H Vegetable/Casserole

I-P Hors D'oeuvres (bring by 6)

Q-Z Salad

Plant Tags

The initial order of metal plant tag stakes has almost sold out. The ones for the projects are still available but another order is being made for individuals who want them. Let Mrs. McKinney, 340-6650, know if you will want a large number (at 3 for \$1) so enough will be available at the January and February meetings.

Arkansas Flower & Garden Show

The show will be held March 2-4 this year. Beth will be sending out a form for you to use to volunteer for this event. Watch for it and volunteer.

New Committee Assignments

Everyone should have received a form to fill out and return for next year's project committees. If you have not received one, call the County Office. If you have received it, please fill it out and return it soon.

Report Work Hours

Beth is compiling her preliminary reports, due December 1, for the State Office. Please send in an update of all the hours you have worked and not reported yet.

Old State House Garden on TV

Janet Carson has used the Old State House Garden as the topic of a program for her AETN program "Today's Garden With Janet Carson". This program will air in January.

"Today's Garden" Calendar

"Today's Garden" with Janet Carson, which can be seen on PBS, now has a calendar available. The calendar lists monthly gardening tips and dates for gardening festivals,

workshops and meetings.

You may purchase one for \$5 by seeing Martha Brothers at the State Extension Office, 2301 South University, Little Rock, or call Martha at 671-2127. Cash, check, MasterCard and Visa are accepted for payment. Quantity discounts are available.

Dues Due

New Master Gardeners do not pay dues their first year. Other Master Gardeners, please pay your \$10 in January.

2001 International Conference

Another list of proposed Master Gardener courses for the conference in Orlando next May includes:

Edible landscaping (integrating fruit and vegetables)

Environmentally friendly pest management

Pondscaping

Bees in your backyard

Vermiculture

Crape myrtles

Antique roses

Holiday Greetings to All

The end of another year — which has been a rewarding one for all of us on the newsletter committee — is here so soon. We

hope everyone has a good holiday season, and we'll see you in the garden next year. *



Checklist, continued from page 3

Bromeliads thrive indoors with minimal care. Keep soil moist but not soggy. *Sansevieria* in an inch or two of water will last indefinitely.

Root a branch of *Mahonia* or the gold-flecked variety of *Aucuba* in a large bottle or water. Place beets, carrots and sweet potatoes in jars of water on a windowsill for an interesting display of green sprouts. Bring in a branch of pussy willow or similar flowering shrubs and place in water for bloom.

December Color

Camellias, dogwood, hollies, nandina, Osmanthus aquifolium, possum haw, rosehips, tea plant, viburnums and violas.

January Color

Camellias, heather, helleborus, hollies, winter honeysuckle and jasmine, mahonia, possum haw, flowering quince and witch hazel. *

Holly, continued from page 1

ded. Many hollies can be grafted onto American holly stock.

Transplantation

Hollies should be transplanted during the dormant period, usually November through March. Small plants may be dug bare-rooted, but larger ones should be balled and wrapped in burlap. If bare-rooted, the roots should be immediately wrapped in wet sphagnum and kept wet until planted.

In planting, the hole should be about one foot wider and deeper than the root system. Water poured into the hole with the dirt will keep the roots moist. Also leave a shallow basin around the tree to retain water later. A good watering once a week is usually sufficient. A two-inch mulch of leaves, straw, sawdust or other material helps maintain root moisture. Fertilizers of various kinds can be used.

Pollination

The staminate trees should be planted close to the pistillate trees. In nature there is usually a ratio of about one pistillate tree to four or more staminate trees. However, the sex cannot be distinguished until blooming age, which is 5 to 12 years. Furthermore, individual pistillate or staminate trees sometimes do not bloom simultaneously and pollination does not take place. To offset this, sometimes a cut blooming staminate branch can be kept fresh in a can of water for a few days and hung in a pistillate tree to permit the bees to transfer the pollen. Sometimes it is possible to get a self-fertilizing tree by grafting staminate branches in the top of pistillate trees.

Diseases

Leaf-mining insects, spittlebugs, scale insects, red mite and black mold are the most common pests on hollies. Red mite is the most serious. Effective control requires two to three applications of a good miticide at 10-day intervals. Insects are not extremely serious. Control with insecticide sprays applied when the pests are first observed. A second spray two

Dig In Here ...

Does a gardening/horticultural problem have you stumped? These resources can help you solve nearly any gardening dilemma:

Pulaski County Cooperative Extension Service Office

2901 West Roosevelt Road
Little Rock, Arkansas 72204
340-6650
bphelps@uaex.edu

Arkansas Cooperative Extension Service Office

2301 South University
Little Rock, Arkansas 72204
671-2000

Pul. Co. Horticultural Hotline

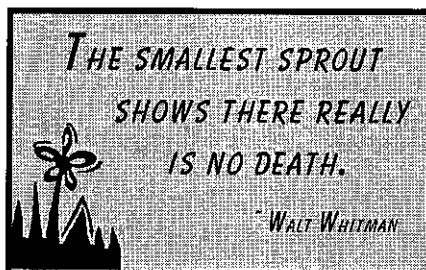
340-6660

University of Arkansas Cooperative Extension Service

Website: <http://www.uaex.edu>

or three weeks later may be required.

Your best source of further information is the University of Arkansas Cooperative Extension Service Publication MP310, "Hollies in the Arkansas Landscape" by Gerald L. Klingaman. ✪



Trading Post

By Frances Young

Carl Hunter, 455-1538, has wild-flower seeds.

Wayne Starnes, 219-2968, has spider plants.

Trish Dixon, 851-2895, wants purple poppies — plants or seeds.

Margaret Breen, 758-1883, has hollyhock seeds, anise hyssop seeds, and feverfew seeds and wants pampas grass.

Adrian Williamson, Jr., 227-0495, has daylilies. ✪

Spread The News!

If you have an item of interest or a newsworthy photo, or need to tell the general membership something about your committee, this newsletter is your opportunity to reach all Pulaski County Master Gardeners.

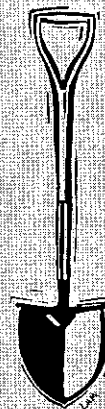
Please provide your information to us by the second Tuesday of January to see your message in the February 2001 issue of the newsletter.

You may send us your information via: Beth Phelps, Pulaski County Cooperative Extension Office, 2901 West Roosevelt Rd., Little Rock, AR 72204, 340-6650, bphelps@uaex.edu; Mrs. McKinney, 340-6650; Rose Hogan, 374-9429, rhogan@aristotle.net; or Cheryl Kennedy, 753-8192, fax 753-6305, and fromthegarden@earthlink.net.

If you have late-breaking news unavailable by the closing date, Beth may be able to add it to her letter that is mailed with the newsletter. ✪

Master Minutes Staff — 2000

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	Laura Anne Wilson
	Lynne Woods
	Frances Young



Pulaski County Master Gardener Volunteers are trained volunteers working with the University of Arkansas Cooperative Extension Service and Pulaski County Government to provide demonstration gardens and horticulture-related information to the residents of the county. In 1999, these volunteers gave more than 7,000 hours of service.

Elsabeth J. Phelps
County Extension Agent — Agriculture