



January/February 1999

Volume 10 Issue 1

Vining Vincas Flourish Almost Anywhere

By Julia Loyall

Spring visitors to Newport, Rhode Island's "City by the Sea," are enchanted with the trees and gardens of the mansions, but all of the city is dressed in its best. The tall, narrow Victorian houses with their gingerbread trim and wide wooden porches, the shops and the restaurants are sporting wooden window boxes on second-story windows, porch railings and balconies. Colorful annuals flourish in the boxes, and every box has long stems of dainty vinca dangling over the sides as though by Chamber of Commerce decree.

Vinca has two personalities, the creeping fast growing, vining ground cover used on the window boxes and the annual bedding plant, both called periwinkle. The family Apocynaceae includes oleander and frangipani. Members have pairs of opposite leaves, five flower petals united into a tube and milky juice, sometimes poisonous, hence the common name "Dogbane."

Cultivation

The vining vincas will grow in almost any soil or situation but flower best in full sun and need water when flowering. They will grow in dry shade, but not in extremely dry or poorly drained soil.

Flowers are borne in the leaf axils on upright stems, but principal growth of the vines is ground-hugging. These vincas root readily as they travel and crisscross into a dense mat, crowding out other vegetation.

"Vinca" is from the Latin vincio, meaning "to bind." These plants are well-named. Cut the vines back hard in early spring and be sure to have a shallow barrier around beds where you want them confined. Pruning off wayward shoots will encourage branching.

Propagation is easily

done by division, layering or by rooting semi-ripe cuttings; and seed is available for starting plants indoors.

Fertilize in spring; water in dry periods.

Pests

Possibly leafhoppers, scale insects, aphids, leaf spot and dieback.

Hardy Varieties

Vinca minor (Periwinkle or creeping myrtle) has lance-shaped leaves one-half to three-quarters of an inch wide and grows up to six inches tall. Flowers are the characteristic lavender-blue, one inch across. It is hardy in zones 4-9.

V. minor 'Alba Variegata' or V. minor 'Alba Aureavariegata' has leaves with pale yellow margins and white flowers.

'Atrapurpurea' or 'Rubra' has dark plum-purple flowers.

'Azurea Flore Plena' has double sky-blue flowers.

'Multiplex' or 'Double Burgundy' have double plum-purple flowers.

'Bowles Blue' and 'Bowles White' flower as named.

Vinca major (Blue Buttons) has larger leaves than V. minor and even more vigorous growth habits. Leaves are ovate to lance-shaped and dark green, to three and a half inches long. Flowers are blue-violet or dark violet, two inches across, occurring from midspring to autumn.

Arching shoots reach up to 18 inches in height, and spread is indefinite. It's hardy in zones 7-11.

V. major 'Variegata hirsuta' or 'pubescens' has hairy leaves.

V. 'Variegata maculata' ('Dartington Star') has leaves with yellow-green centers.

'Elegantissima' has leaves with irregular creamy white margins.

'Reticulata' has young leaves veined yellow or cream which later become dark green.

All of these vining vincas make excellent ground covers and will prevent soil erosion on slopes. Their trailing stems are lovely in flower arrangements, around house plants, in hanging baskets or planter boxes, circling trees or along paths.

Here they take full sun only four to seven hours a day and

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perhaps do best in light shade.

At Williamsburg, Va., the hardy periwinkle is used in flowerbeds. Bulbs are planted under it. When daffodils are gone, there's still a green carpet that hides drying foliage.

Hardy vincas are shallow-rooted and help keep soil cool under peonies and other spreading shrubs.

Periwinkle, like boxwood and yew, cannot tolerate chlorine. Don't plant it near your swimming pool.

Annual Vinca

The annual vinca, *Vinca rosea* (Madagascar periwinkle) is also called *Catharanthus rosea*. It has white, pale violet or pink star-shaped flowers with deeper colored throat and shiny oval leaves.

Pinch this shrubby plant for branching. Some authorities suggest that deadheading will improve flowering all summer into fall, but local gardeners say they do not need to deadhead to achieve the same effect.

It takes full sun and average soil. Height is six to 12 inches, spread one to one-and-a-half feet. It is perennial in the Deep South but best as an annual here because it is difficult to bring back into flower a second season.

It's important to keep the soil moist while the plant is flowering. Use liquid fertilizer every 10 to 14 days.

'Little Blanche' has white flowers, 'Little Bright Eyes' white with rose-red centers, 'Polka Dot' (All-America selection) white with cherry-red centers.

'Cooler' series are compact, with rose-pink and white flowers. 'Pacifica' series branch from the base and have large lilac-pink or white flowers. 'Little Linda' is deep orchid, 'Little Delicata' pale pink with a red center.

Plants are locally available in season or sow seeds outdoors in late winter or indoors at 70 degrees F. eight to 10 weeks before the last frost.

Other Uses

In herbal remedies, the vining vincas were used to stop bleeding and as a tonic. A vinca love potion included dried worms in the recipe. A drug produced from Madagascar periwinkle has been researched for use in treatment of diabetes and leukemia. It was used traditionally by herbalists for diabetes.

But please don't put any part of these flowers in your salad or let your cat eat them. ❖

Calendar and Notes

By Laurie Pierce

Dues

Pulaski County Master Gardener membership dues are \$10/year. Send checks to Kevin Allis, 3110 Happy Valley Drive, Little Rock, 72212, 228-7007. Graduates of the fall 1998 master gardener class do not pay 1999 dues. Bring your checkbook to the February 9 Pulaski County Master Gardener's meeting.

February

A *fruit tree pruning workshop* will be held February 9 at the Experiment Station in Clarksville. Rain date February 16. 340-6650.

The *Arkansas Flower and Garden Show* will be held February 19-21 at the Statehouse Convention Center. Lots of committees still need volunteers — call Beth to find out how you can make the 1999 show unforgettable.

March

The *31st Annual Jonquil Festival* will be March 5-7 at Old Washington State Park. Admission \$2. 870-983-2660.

Camden's Fifth Annual Daffodil Festival will be March 12-14. Admission \$3, \$1 for ages 6-12. 870-836-0023.

The *10th Annual Medicinal Herb Workshop* will be held 9 a.m.-5 p.m. March 13 at the Ozark Folk Center in Mountain View. Topics include herbal tinctures, spirulina, alternative medicine and herb folklore. Cost \$40; preregistration required. 870-269-3851.

Parkin Archeological State Park will host a *Primitive Garden Tools Workshop* March 13. Get ready for spring by making your own wood, bone, shell and gourd tools. Advance reservations required. Admission \$2.25, \$1.25 for ages 6-12. 870-755-2500.

The *Eighth Annual Bluebird Clinic* will be held March 13 at Mammoth Spring State Park. Free. 870-625-7364.

The *38th Annual State Daffodil Show* will be held at Hulen Hall on the Hendrix College campus in Conway March 20-21. Free. 501-332-2109.

The *Arkansas River Valley Lawn and Garden Show* will be held March 26-28 at the Fort Smith Civic Center. 501-784-2365.

Mountain View's Ozark Folk Center will conduct its annual *Organic Greenhouse Workshop* for beginner and intermediate gardeners March 27. Bring a sharp pocket knife and pruning shears. Preregistration required. Admission \$40. 870-269-3851.

April

Camden will host a *statewide Master Gardener meeting* April 12-13. Call Beth or Mrs. McKinney, 664-6650.

May

Janet Carson and Kruger Tours will lead a *Master Gardener Tour of Southern Gardens* May 2-8. Featured gardens include the Biltmore Estate; Cheekwood Botanical Gardens and Gardens of the Opryland Hotel in Nashville, Plant Delights in Raleigh, McMinnville Nurseries, University of Tennessee Trial Gardens and the arboretum at the University of North Carolina. Approximate cost of trip \$900. 223-8851. ❖

Just For Fun ...

Which animals did Noah not take on the ark in pairs?
Worms. They went on in apples.

Which veggie did Noah not take on the ark?
Letts.

What Works!

By Shalah Brummett

Hello and Happy New Gardening Year! The general public probably thinks all the gardening fun is over until spring, but we know better, don't we? There is much (mulch?) to be done both inside and out right now. So, let's get to it!

Planting Table

Here is the Old Farmer's Almanac planting table below. Because January had full moons on both the 1st and 31st, February has none this year. Throughout the month, the days lengthen by almost an hour.

Plant above-ground crops: 20, 21, 29

Plant below-ground crops: 1, 2, 11, 12

Destroy pests and weeds: 21, 22

Graft: 1, 2, 20, 21

Prune to encourage growth: 22, 23

Prune to discourage growth: 13, 14

Odds And Ends

Mix a tablespoon of salt into the water of a vase of *cut flowers* to keep them fresh longer.

Remember that *wood ashes* contain potassium, a valuable element in root development. Make sure ashes are cooled, then sprinkle lightly around plants or in your compost pile.

Take *inventory* now. Lots of items are on sale and it's a great feeling to get a head-start. Check for: fertilizer and fertilizer scoop, soil amendments (peat moss, vermiculite and perlite), potting soil, seed-starting supplies,



seed flats, pots and saucers in several sizes, soil-testing kit, labels and permanent markers, stakes, wire, string and twist ties, rooting hormone, hose and gear (boots, gloves, apron and knee pads).

To *make* the above-mentioned *fertilizer scoop*, cut off the top of a plastic gallon-size milk jug.

Remove rust from metal tools with a sanding block.

There are increasing options in *seed collections* now, creating gardens from one seed packet. A variety of labels



and choices exists, such as a cutting garden, antique flowers cottage garden, one for birds and butterflies and another for evening fragrance. There are even collections of color, such as "Sea of White" and "Sea of Orange".

If you have a "*mystery plant*," there is an Internet forum where users can post images of those plants. The Name That Plant gallery is at: <http://www.gardenweb.com/forums/namegal/>

For The Birds ...

Loop strands of cranberries, winterberries, pepperberries, nuts or popcorn across fences to *feed birds*.

Fill an empty birdbath with birdseed cut with sunflower seeds, corn-cobs, sumac berries, wild rose hips and bittersweet. Cardinals love the rose hips, and other birds, squirrels

and raccoons will enjoy the rest.

Take leftover holiday wreaths made of fruit and/or berries and nuts and hang on bare trees, fences or outdoor buildings for hungry squirrels and raccoons.

Be sure to crack nuts a bit and cut fruits in half on the wreaths you leave outside so birds and small animals can get to them quickly.

Instead of cutting back your herb garden, leave plants for the animals to nibble on.

Make a supply of the following *high-energy peanut butter mix*. It's beneficial as a suet mixture and it's popular with 30+ species!

**Sharon's Super Energy-Booster For Birds*

1 cup crunchy peanut butter

1 cup Canola oil

1 cup white flour

4 cups yellow cornmeal (important - it prevents choking)

Raisins and sunflower seeds, as you wish

Mix thoroughly and store in a covered container in the refrigerator. Use a knife to spread into the scales of a pine cone. Hang in a sheltered area out of reach of cats and squirrels. ❄️

**for Gardener magazine, by naturalist Sharon Lovejoy. You may contact her at <http://www.thegrid.net/>*

"What Works!" is a forum for gardening, design and craft ideas. We want to share unique ideas from your own experience, magazines, television, friends and neighbors. Call Shalah with hints and ideas, be ready to jot them down at the monthly Master Gardener meeting, or write "What Works!" c/o Beth Phelps, Pulaski County Extension Office, 2901 West Roosevelt Road, Little Rock, AR 72204.

I'm not just a gardener -
I'm a plant manager!

February Checklist For Gardeners

By Libby Thalheimer

For The Birds

Keep a supply of fresh water near the birds' shelter. To attract a variety, feed them suet, cracked corn, sunflowers, chopped fruits, doughnuts or cornmeal mixed with peanut butter. Birds are attracted to the following plants with fruit/berries in the month of February: barberry, beautyberry, coralberry, cotoneaster, dogwood, hawthorn, holly, mahonia, possum haw and viburnum.

Fertile Grounds

Roses: Apply a top dressing of cottonseed meal and bone meal under a generous layer of compost or rotted manure. Dehydrated manure eliminates danger of nut grass and weed seeds.

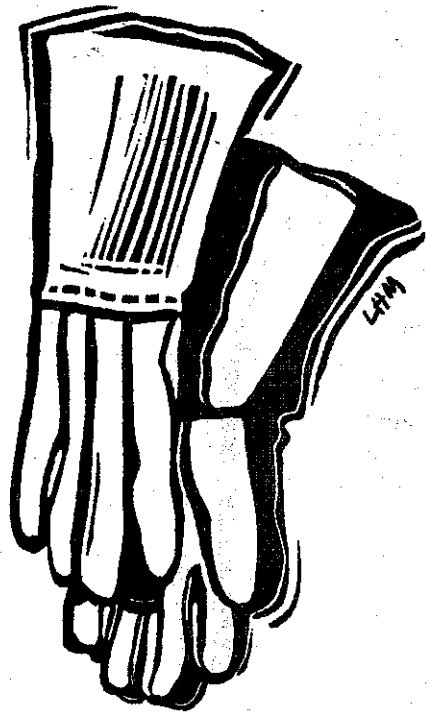
Lawns: Apply lime as needed, if not done in December or January.

Trees: Apply a high-nitrogen fertilizer, if not fertilized in January.

Annuals: Apply a slow-release fertilizer at the rate recommended on the label.

Forcing The Issue

Purchase pre-chilled bulbs (hyacinths, paperwhites and daffodils) to force indoors. Place cut stems of a spring-flowering shrub (such as forsythia, fruit tree, Oriental magnolia or quince) into one gallon of warm water with two tablespoons of ammonia. Enclose the container and stems in a bag and fasten snugly.



buds open to avoid burning them. **Note:** Do not use oil spray on sugar or Japanese maple, walnut, beech or magnolia trees. *Aphids on cool season annuals and vegetable plants?* Use insecticidal soap. *Weeds?* Apply pre-emergence herbicides on established lawns or even newly planted ground cover and shrub beds.

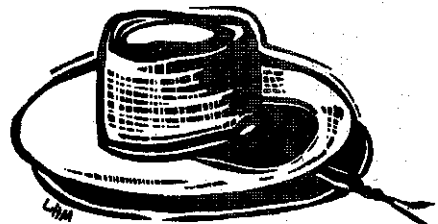
Make Your Bed!

Organize new designs for gardens; start construction of raised beds, borders and planter boxes. For inspiration, plan on going to the Arkansas Flower & Garden Show, February 19-21. Place orders for seeds, bare root roses, perennials and shrubs to ensure availability. You can put out asparagus crowns and strawberry

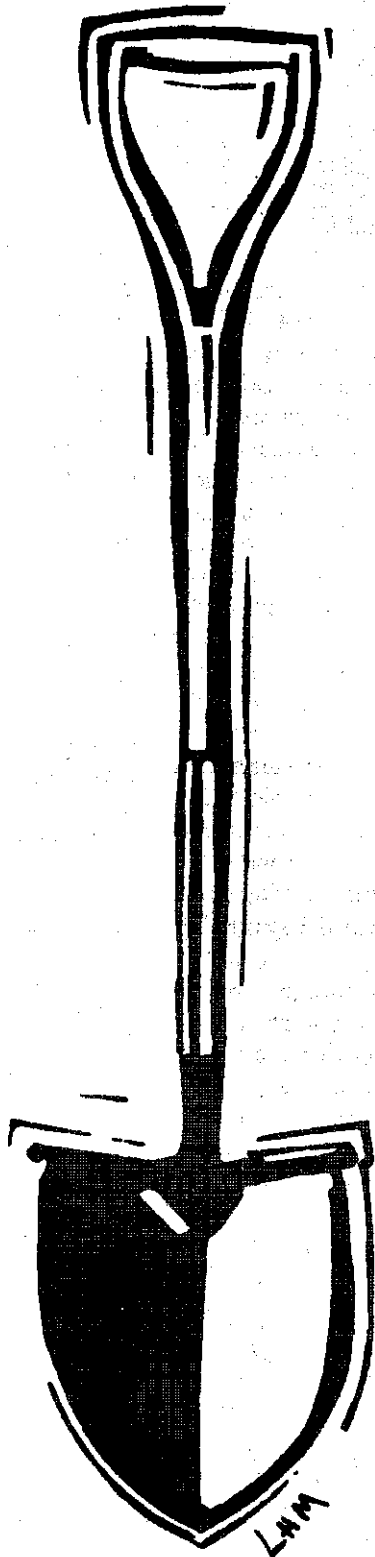


Who's Bugging You?!

Borers, mites, aphids, or scale? Apply dormant oil spray such as "Sun Oil" to trees, shrubs, evergreens, roses and the perennial border to control these pests this year. Check the label for optimum temperature conditions (usually applied on a calm day when the temperature is expected to be above 40 degrees for three days and no rain is expected for 24 hours). Spray plants before leaf



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., to lessen watering, cultivating and weeding that you will have to do later.



The Hole Truth

Plant balled and burlapped 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 as magnolias and hollies. All newly planted or transplanted material should be watered in with "Super-thrive" or root stimulator.

Sow What?!

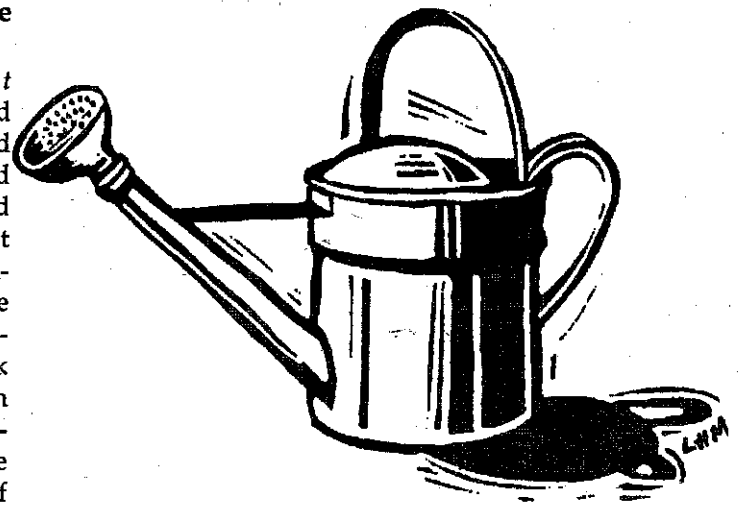
Outdoors, sow broccoli, cabbage, candytuft, cornflowers, larkspur, English peas and *Phlox drummondii*. Plant sunflowers to attract the natural enemies of the white fly. In a cold frame, plant blue salvia, feverfew, lupine, nicotiana, scabiosa, snapdragon, and verbena, as well as cuttings of shrubs (put at least two buds underground).

Cutting Class

Crapemyrtles: Cut back dwarf forms to within six inches of the ground. Prune back larger shrub forms only if needed to maintain size. Thin tree forms every three to five years. Annual pruning of this tree destroys the natural appearance of the plant.

Broadleaf Evergreens: Cut out all dead wood, 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.

Fruit Trees: Remove undesirable limbs and tip terminals, and thin out crowded shoots. Leave some of the branches of fruit and berry trees for



small animals to chew on.

Fruit: Remove older canes of blueberry plants. Cut back lateral branches of blackberries to one foot.

Groundcovers: Mow or shear to four to six inches English ivy, vinca minor, pachysandra, Japanese honeysuckle, wintercreeper euonymus, crownvetch and monkey grass. Shear to six to eight inches santolina, lavender cotton, and junipers.

Roses: Early to mid-February, prune rose bushes (hybrid teas, 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 and flowering quince until after bloom.

February Bloomers

Anise Florida, bridal veil, camellia, crocus, daffodil, dogwood, forsythia, helleborus, hyacinth, iris (*Stylosas* and *Reticulatas*), Carolina jasmine, kerria, Oriental magnolia, muscari, pansies, phlox, primrose, pussy willow, quince, redbud, spirea thunbergi, viola and violet.



Committee Chairs For 1999

Here is a list of our committee chairs, for your convenience.

Art Center

Suellen Roberts, 225-2362

*Jim Campbell, 666-0818

Baptist Rehab. Horticulture Therapy

Mildred Walton, 663-7331

Cammack - U of A System

Ann Ward, 666-1303, 340-6650/M-W

Contemplation Garden

*Lisa Mantle, 851-4414

County Extension Office

*Betty Pagan, 663-7983

*Guy Baltz, 835-4266

Boon-Nam Blackwell (turf), 224-7557

Governor's Mansion Vegetable Garden

Aleta Newell, 666-0991

Fred Henker, 223-0665

Greenhouse

*Mary Evans, 664-7863

Lois Corley, 666-2498

Jacksonville City Hall

Rebecca Camp, 834-8285

Dottie Heckenbach, 982-5573

Master Minutes

*Rose Hogan, 374-9429

Cheryl Kennedy, 753-8192

Mt. Holly

*Sally Sanderson, 664-7211

Old Mill

*Rochelle Greenwood, 753-7853

*Sue Anderson, 771-2477

Pinnacle Mountain

Jeanne Lizar, 835-5431

River Market

Kathy Scheibner, 225-0478

Pat Petkoff, 224-3741

Social Committee

*Susan Crisp, 664-4168

Speakers Bureau

Linda Dantzler, 771-0844

Betty Jane Daugherty, 221-2865

State Extension Office

*Judy Cass, 834-7588

*Denise Rowland, 228-4667

State Hospital

Connie Panos, 225-4920

Marian Berry, 663-1693

Sunshine Committee

Linda Dantzler, 771-0844

Travel Committee

Nancy Cockman, 664-0007

Jean Moffett, 221-3209

Victorian Cottage

Anne Jarrard, 375-3903

War Memorial

*Dick Carter, 227-7676

*Wini Carter, 227-7676

***First Name Listed is the Chair followed by the Co-Chair(s)*

** First Time Chairmen*

Book Review

By Cheryl Kennedy



A Way To Garden

A Hands-On Primer For Every Season

Book by Margaret Roach,
Garden Editor for Martha Stewart Living

The book lists for \$35, and is published by Clarkson N. Potter, Inc., 201 East 50th Street, New York, New York 10022. Member of the Crown Publishing Group, Random House, Inc., New York, Toronto, London, Sydney, Auckland. <http://www.randomhouse.com/>

I happened onto this book because my daughter had bought it, and it was lying around when I was in need of something to read. As I thumbed through the pages, I was not particularly intrigued with the book's claim to fame as a primer (since I've gardened most of my life), nor did I find Margaret Roach's employment as garden

editor of Martha Stewart Living to be any great recommendation. However, after savoring every word of the 176 pages, I have to admit that if I were going to write a garden book, this is exactly what I'd like to accomplish. The author's style is warm and personal, lyrical, intensely informative and full of

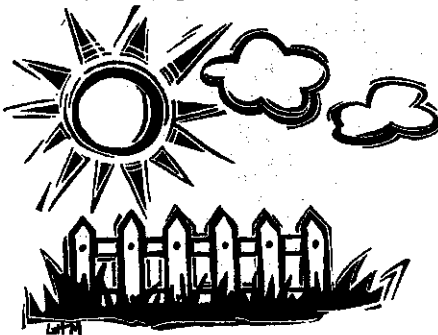
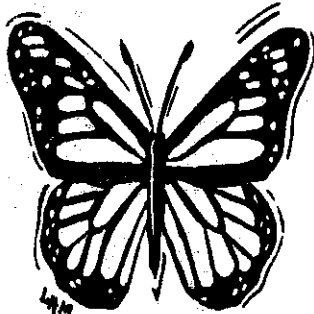
common sense; the book is chock full of philosophy, psychology and skills that any veteran gardener will appreciate.

Margaret's overall theme is that the garden's annual seasons parallel the seasons of life — that is, conception (planning) takes place during the first couple of months of the year, followed by birth (planting time in spring), then youth (the wild burst of late spring flowers and growth), then adulthood (dividing and harvesting in late summer), followed by senescence (or taking inventory of how the garden has done during the year), and finally afterlife, or the resting garden of winter. Admittedly, at first blush, this

approach is a no-brainer, but the intimate understanding of plants — and perhaps more importantly, *why* people spend their lives gardening — carries *A Way to Garden* many miles beyond your average scholarly garden tome.

While you'll follow the childhood and young adulthood events that led Margaret into her vocation and avocation, you'll also absorb a tremendous amount of botanical and gardening knowledge. Perhaps best of all, you'll come away with a greater sense of confidence in your own abilities. Over and over again, she encourages readers to experiment (she's not shy about sharing her failures as well as her successes) — if you really like a plant that is a zone or two beyond your area, she'll tell you to try anyway. Maybe you can grow it in a container so that you can move it inside when outside temps are not accommodating. Or maybe you can find a microclimate in your garden that will take care of its special needs. Maybe you can hunt down a kissing cousin to the original plant you pined for, and it will be just as lovely and much easier to live with. ...

As a bonus, Kit Latham's 200+ beautiful photos carry you right into Margaret's garden to enjoy springtime lilacs and tulips, summertime cucumbers and dill, autumn squash and fiery leaves, and winter's dried grasses, frosts and snowfalls. ❁



Is Your Red-Tip Photinia Sick With Leaf Spot?

By Annette Hurley

If you are having a problem with red tip photinia leaf spot or other fungal troubles, one of the factors contributing to the severity of the symptoms may be a weak or stressed plant. The problem with simply spraying a fungicide is that you are treating only for the disease organism. By adding in the necessary minor nutrients such as magnesium, iron and nitrogen, you can help ensure that the plant is getting all the nutrients it needs to maintain good health.

Reduce your use of high nitrogen and chemical fertilizers, and aerate the root system. Apply a large amount of compost, half as much soft rock phosphate and half as much lime, and sprinkle Epsom salts. Spray

the foliage with two tablespoons of A-35 (a Nitron product) or an organic soil conditioner; one tablespoon each of molasses, seaweed and natural apple cider; and Epsom salts and baking soda.

Nitron, Inc. is an Arkansas organic supplier based in Fayetteville. The phone number is 800-835-0123. It is a very reputable company with a large resource of mail-order products. The Farmers' Association in Little Rock at Stagecoach and Asher has an assortment of organic products too.

Add health to the soil by adding organic matter and rock powders as much as possible, and don't forget to mulch! ❀

Calling All MGs!

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

Please provide your information to us by the date of the MG meeting prior to publication (in other words, if you want people to see your message in the March newsletter, get your news to us by the date of the February meeting. You may bring it to the meeting. You may mail it to Beth. You may call Rose Hogan at 374-9429, or Beth Phelps or Mrs. McKinney at 664-6650. Or you may call Cheryl Kennedy at 753-8192, fax her at 753-6305, or e-mail her at srd rider@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. Contact her before the end of the month prior to publication (end of February for the March newsletter). ❀

Order Now!

All committee chairs need to get their special requests or orders to the greenhouse committee before **March 1**. Call Mary Evans (664-7863), or Lois Corley (666-2498). ❀

Blowin' In The Wind

Our sympathies are with all MGs and others who were touched by the January tornadoes. Also, committee persons will be extra-busy for a while with the Governor's Mansion and Contemplation projects, which were tossed about by the evil winds.

Fred Henker, a veteran MG, was at the Arts Center during the ruckus. He and the rest of the patrons headed for the basement, which was lit by candles. Shortly, people from the celebration upstairs joined them, bringing along a little wine. Fred says a merry time was had by all!

He adds, with a sad smile, that his father was a plantsman in the city park when it was still Arsenal land. Some of the whips that his dad planted became the stately trees that are now part of the storm cleanup. ❀

Trading Post

By Frances Young

Marge Van Egmond, 224-7632, has clay pots of varying sizes.

Ray Robbins, 227-6565, has raspberries.

Diane Holt, 227-6869, wants Cattleya orchid.

Kathleen Wesson, 663-9146, wants nandinas.

Linda Murphey, 224-5216, has morning glory seeds

Melissa Bacon, 661-0180, has nandinas and red tip photinia.

Master Minutes Staff — 1999

Co-editors

Rose Hogan
Cheryl Kennedy
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Kelly Quinn
Shalah Brummett
Lois Clifton
Nelwyn Davis
Ann Green
Annette Hurley
Julia Loyall
Linda Murphey
Gená Norris
Laurie Pierce
Phyllis Rye
Claudia Stallings
Libby Thalheimer
Laura Anne Wilson
Lynne Woods
Frances Young

Art Photography Staff



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 1998, these volunteers gave more than 7,000 hours of service.

Elisabeth J. Phelps
County Extension Agent — Agriculture



March 1999

Volume 10 Issue 2

Look At Two "Arkansas Select" Annuals

Scaevola and Melampodium

By Gena Norris

The Horticulture Department at the University of Arkansas and the Arkansas Cooperative Extension Service, in cooperation with the Arkansas Greenhouse Growers and Arkansas Nurseryman's Association, initiated in the spring of 1998 a program to identify superior plants for use in Arkansas gardens. The program, called Arkansas Select, chooses from four to six superior plants each year to be highlighted in a plant promotion program. The plants for the 1999 program were nominated and selected by industry leaders on the basis of being new and/or under-used, plus their adaptability in Arkansas. The Arkansas Select plants are available from greenhouses, nurseries and garden centers around the state.

Scaevola

"What's the name of that unusual blue flower in that hanging basket?"

More than likely the answer to the above question is scaevola. Lacking a quaint little "common" name, this annual is a real eyecatcher. Blue or purple "fan-flowers" are tiny but very abundant on long trailing branches.

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Scaevola is a mounding plant but is lovely used in containers or along a wall, allowing long, cascading, flowering limbs.

Cultural Notes

This plant is best suited for full sun, but will tolerate some

shade (especially in hot areas such as Arkansas!). Look for varieties such as "Blue Wonder" and "Purple Fanfare". An improved form of Scaevola, "Summertime Blues", may or may not be available. Choose this variety if you want a 10" to 12" annual that blooms from spring until late autumn.

Propagation

Nurseries usually sell plants already in bloom. Seeds may be sown in mid-spring (after the danger of frost has past) or started earlier indoors. Scaevola does not reseed and must be replanted each year. Use a slow release fertilizer once in spring and lightly prune once in early spring and then again in late summer.

Melampodium

Looking for a good plant to fill in your garden area? Melampodium offers golden yellow daisy flowers covering light green bushy foliage. This variety combines well with other summer annuals.

Cultural Notes

Not bothered by heat, drought, insects, or disease, melampodium grows to a height of between 12" and 18" and flowers all summer long with little care.

Propagation

It may not be available in nurseries and garden centers in early spring – try in late April or May, or start your own from seeds indoors. Melampodium self seeds readily, so once you have it in the garden, you should not have to worry about replanting each year.

Calendar And Notes

By Laurie Pierce

March

The 31st Annual Jonquil Festival will be March 5-7 at Old Washington State Park. Admission is \$2. 870-983-2660.

The next Pulaski County Master Gardener meeting will be March 9, 11:30 a.m., in the state Cooperative Extension Office auditorium.

Camden's 5th Annual Daffodil Festival will be March 12-14. Admission is \$3, \$1 for ages 6-12. 870-836-0023.

The 10th Annual Medicinal Herb Workshop will be 9 a.m.-5 p.m. March 13 at the Ozark Folk Center in Mountain View. Topics will include herbal tinctures, spirulina, alternative medicine and herb folklore. The cost is \$40, and preregistration is required. 870-269-3851.

Parkin Archeological State Park will host a Primitive Garden Tools Workshop on March 13. Get ready for spring by making your own wood, bone, shell and gourd tools.

Advance reservations required. Admission is \$2.25, \$1.25 for ages 6-12. 870-755-2500.

The 8th Annual Bluebird Clinic will be March 13 at Mammoth Spring State Park. Free, but pre-register. 870-625-7364.

March 15 is Arkansas Arbor Day.

The 38th Annual State Daffodil Show will be at Hulen Hall on the Hendrix College campus in Conway March 20-21. Free. 501-332-2109.

The Arkansas River Valley Lawn and Garden Show will be March 26-28 at the Fort Smith Civic Center. 501-784-2365.

Mountain View's Ozark Folk Center will conduct its annual Organic Greenhouse Workshop for beginner and intermediate level gardeners March 27. Bring a sharp pocket knife and pruning shears. Preregistration required. Admission is \$40. 870-269-3851.

April

The Pulaski County Master Gardener meeting for April will be Tuesday April 6 (11:30 a.m., state Cooperative Extension Office auditorium) to accommodate the statewide meeting April 12-13.

The Arkansas Unit of the Herb Society of America will conduct a plant and garden sale 7 a.m.-3 p.m. April 10 at the River Market. There will be educational lectures and demonstrations as well as herb gardening accessories and books. 666-3104, 758-3446, 280-9235.

Camden will host a statewide Master Gardener meeting April 12-13. Topics will include gardening for bees and butterflies, water gardens, flowering shrubs and trees, heritage roses and drought tolerant landscaping. Other subjects will be city and country garden tours and the cultivation of camellias, bearded iris, lilies and purple martins. The cost is \$60, and registration is due March 19. Call Janet at 671-2174 for a registration form.

"Here Comes the Sun" is the theme for a spring festival at Pinnacle Mountain State Park April 24 and 25. The festival will feature vendor booths, food and workshops by Janet Carson and Carl Hunter. Parking costs \$2. 868-5806

May

Janet Carson and Kruger Tours will lead a Master Gardener Tour of Southern Gardens May 2-8. Featured gardens

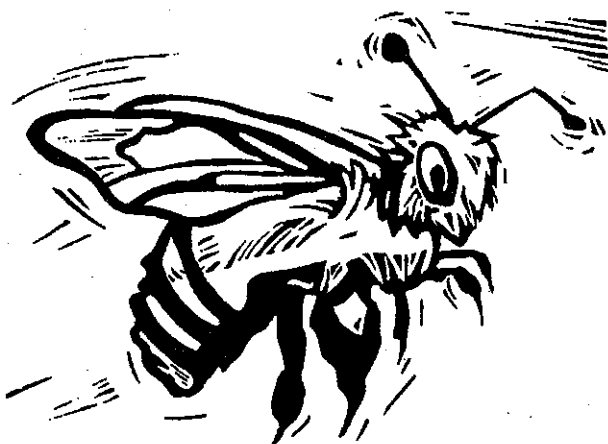
include the Biltmore Estate, Cheekwood Botanical Gardens in Nashville, Gardens of the Opryland Hotel, Plant Delights in Raleigh, McMinnville Nurseries, University of Tennessee Trial Gardens and the arboretum at the University of North Carolina. Approximate trip cost is \$900. 223-8851.

The University of Arkansas Department of Horticulture will conduct a Horticulture Study Tour to Philadelphia and Washington, D.C. May 12-19. Featured stops will include

Longwood Gardens, Morris Arboretum, National Botanical Garden and Glasshouse, Kenilworth Aquatic Gardens and the White House. Cost is \$925 and includes airfare and double accommodation. 501-575-2603.

Summer 1999

San Antonio, Texas, is the venue for the 1999 International Master Gardener Conference Aug. 19-22. Guest speakers will include British author and television personality Penelope Hobhouse, Kent Whealy of Seed Savers, Roger Swain of the Victory Garden and Craig Tufts of the National Wildlife Federation. Cost of the seminar is \$145 and includes two lunches, one breakfast and coffee breaks. Accommodations are at the Adam's Mark Hotel on the River Walk: Rooms cost \$99 per night; call 800-444-ADAM. To register for the conference, call the Bexar County Master Gardeners at 877-456-4769. •



What Works!

By Shalah Brummett

Greetings, gardeners! Normally at this time I would be anxious for spring's arrival, but we really haven't had a winter to endure, have we?

Nonetheless, it is time to begin to seriously prepare for the real thing. Following are tips to help with that.

This March, we will have gained more than an hour of daylight. The vernal equinox occurs at 7:46 p.m. CST on the 20th, and the full moon falls on the 2nd. For best plant care days:

- Plant above-ground crops: 24, 25
- Plant below-ground crops: 3, 4, 12, 13
- Destroy pests and weeds: 18, 19
- Graft or pollinate: 16, 17, 24, 25
- Prune to encourage growth: 18, 19
- Prune to discourage growth: 9, 10

Temporary Greenhouse

Jan King gives the following idea for a home-made temporary greenhouse.

She says, "On my patio, I cover my wrought-iron glass top table with heavy-duty clear plastic over a light or white sheet. Both need to hang on the north side to shield plants. Use 4" x 4" beams to weight down the plastic. It needs to be wide and long enough to hang on all sides and be rolled up. Leave one side where you can open and close for air circulation and to water.

"I run a wire from one side to the other under the table to hang an automotive light with a 100W bulb under the table for protection when the temperature drops below freezing. With all flaps down, it works really well.

"This is also a good place to start seeds and cuttings and to save plants over the winter. Most of the winter you can leave one side open, *but you cannot* leave all sides down on warm winter days or plants will burn up."

Tool Time!

It's time to assess your needs for tools. Many of us are suckers for a new garden gadget, but a good question to ask yourself when tempted is: Will this help make gardening easier and more fun?

If the answer is no, then it's probably not worth buying. A good tool should suit you physically — be the correct weight and shape. Here are other ideas:

- *Choose cutting tools with replaceable parts.* Hand pruners, for example, come in a variety of models and sizes, including ones with a rotating handle to reduce wrist strain. There are also pruners for left-handers, which is important to make the cut in the right place on the trunk or branch. Replacing any parts for these is certainly cheaper than paying \$50 for a new pair.

- *Pick the right tools for tight spots.* If you rock-garden, for example, you need a strong, well-made tool that won't break or bend. A hori-hori, a Japanese farmer's weeder, is great in a cramped space to do the job of both weeding and planting. A small, light pick-and-hoe is also great. It

costs about \$30 but does a myriad of jobs.

Other handy-tool ideas are:

"a *footstool*.....because I kneel on it — most of the time with just one knee, which is very accommodating to my lower back."

A *child's gardening set* which includes a rake, hoe and shovel. One gardener uses it in spring to clean the winter debris out of her beds, in summer to clean fallen bird seed, and in the fall to clean leaves out from between bedding plants and low, mat-forming junipers. Its bright colors make it easy to find if left behind.

Lend a hand. One contributor says, "After misplacing my measuring stick for the millionth time, I realized that the most convenient measuring tool I could use was my hand. It measures exactly eight inches from the tip of my extended little finger to the tip of my extended thumb, and its hard to misplace."

Hang 'em high. "Recently, this rule of human-hose relations occurred to me: the less you loop your hose, the happier you both will be. So I rehung my hose hanger head high. My wrangling days are over, as now a few large loops do the trick."

(All the above from *Fine Gardening*, Jan-Feb, 1999, ©The Taunton Press, Inc.)

Seven Hints To Success

or

How Not to Kill Your House Plants

(From the *Greengold Garden Centers on the Internet*)

1. Watering

Watering amounts depend on the temperature and time of year. Plants need more water, generally speaking, while they are growing than during resting season (usually late autumn to winter). A thorough watering weekly is better than a tad a day, but learn your plant requirements. Still, it is better to err on the dry side rather than being too wet.

2. Light

Check with your nursery before buying an indoor plant. You may have to provide supplementary fluorescent lighting in darker or heavily draped rooms.

3. Fertilizing

Be sparing. Less is more. Only fertilize during the growing season and apply to moist soil. A slow-release kind is recommended, supplemented with a liquid dose to give it a kick start in the growing season.

4. Warmth

Again, check with your nursery. Some plants tolerate artificial warmth and others don't. Most important, avoid fluctuations, such as near the front door in winter.

5. Fresh Air

Fresh air blowing gently through the house in the

See What Works, next page

March Checklist For Gardeners

By Libby Thalheimer

Cutting Class

When in doubt, don't prune! However, it is always safe to cut out diseased or dead wood.

Cut woody shrubs above a twig turning outward, not above a leaf bud: glossy abelia, acuba, euonymus, hollies, privet, pittosporum and St. John's wort.

Cut back to within one to two feet of the ground: beautyberry, butterfly bush, clematis (Comtesse de Bouchard, Crimson Star, Henryi, Jackmani, J. rubra, J. superba, Lanuginosa candida, Nell Moser, Ramona and The President), and bush roses.

Cut one-third of the oldest wood to the ground: forsythia, hibiscus, florist hydrangea, oakleaf hydrangea, peegee hydrangea, nandina, and summer blooming spireas.

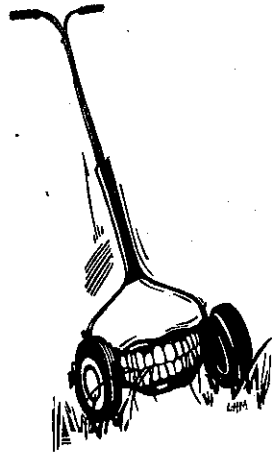
Prune wisteria roots about two feet from main trunk. Prune according to desired form: shrub althea, crapemyrtle and mimosa.

Dethatch warm season grasses (bermuda, centipede, St. Augustine and zoysia). Mow bermuda at one inch. Mow centipede, St. Augustine and zoysia at one and one half inches. Mow bluegrass, fescue and rye at two to three inches.

Dig In

Plant balled and burlapped trees and shrubs and roses before they break dormancy. March is the best month to move crapemyrtles. Flowering shrubs may be moved with ball of dirt, small plants bare-rooted.

Plant perennial seedlings at their proper depth now



for maximum root establishment. 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 one-year-old asparagus crowns, beet seedlings, broccoli plants, cauliflower seedlings, horseradish crowns, kohlrabi seedlings, leek seedlings, onion transplants, potato seed pieces and rhubarb roots.

Fertile Ground

Fertilize all of 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. Apply superphosphate or bonemeal to tulips and daffodils, aluminum sulphate to gardenias, wood ashes to peonies, and lime to clematis. Replenish mulch in beds and borders.

Sow What?

Sow brussel sprouts, chard, cucumber, nicotiana, peas, pepper, scabiosa, summer squash and tomato seeds in a hot house, cold frame or indoors near a bright window. Some annuals can be planted outside now: alyssum, calendulas, carrots, collards, sweet corn kernels, dianthus, kale, lettuce, lobelia, mustard greens, parsnip, sweet peas, pansies, radish, snapdragons and turnip seeds.

Who's Bugging You?

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 fungus has been a problem on red-tip photinia, remove mulch; apply fresh mulch; and spray with Daconil, Funginex or Bordeaux now and again in two weeks. (Consider replacing with an alternate evergreen planting.) Apply final dormant oil spray for roses.

Arkansas celebrates Arbor Day March 15th this year. Get involved.

What Works, continued from page 3

spring and fall gives the plant a fresh atmosphere to live in, but again, avoid drafts.

6. Humidity

Many indoor plants originated from jungles and rain forests in moist atmospheres and, while they may have adapted to our drier atmospheres, moisture helps. One way to overcome dryness is to place shallow trays of water beside your plants, or place the pots inside larger vessels and fill the space between the two with peat moss.

7. Cleanliness

This one is often overlooked. Plants need cleaning. Sponge the leaves of larger plants to remove dust and improve the appearance. Occasionally misting with an atomizer cleans the surface and allows them to use carbon dioxide through the pores of the leaf, which is essential for healthy plant growth.

Ten Indoor Plants That Are Great Toxin Removers:

1. *Areca palm* — top rated for removal of chemicals and ease of care.
2. *Lady palm* — one of the easiest to care for.
3. *Bamboo palm* — one of the best for adding humidity to dry air.
4. *Rubber plant* — tolerates low light and absorbs formaldehyde.
5. *English ivy* — perfect for hanging baskets and will grow in a variety of environments.
6. *Boston fern* — needs care, but it's the best at removing pollutants (think fern bar).
7. *Peace lily* — boasts a high transpiration rate and blooms reliably indoors.
8. *Corn plant* — maximum height ten feet, very tolerant.
9. *Florist's mums* — bloom for six to eight weeks and available year-round.
10. *Gerbera daisy* — blooms all winter and has a high transpiration rate.

Fruit Pruning Workshop Well Attended At Clarksville

By Ann Green

A pleasantly mild February 9th and already greening landscape (thanks to our typical Arkansas spring) provided the backdrop for the Fruit Pruning Workshop in Clarksville. Leading fruit authorities were on hand to demonstrate in the field correct pruning procedures of fruit crops, answer questions and provide hands-on pruning experience for those in attendance.

Two major hour-long demonstrations at two different orchard sites were given during the three-hour workshop and covered apples, pears, table grapes, blueberries, peaches, plums, muscadines and blackberries. Attendees could focus on a particular fruit or sample all of the demonstrations.

Dan Chapman, director of the University of Arkansas Fruit Experiment Station, welcomed the group of approximately 150 who represented most areas of the state. He gave the following cautionary pointers for any pruning experience: 1) wear protective safety glasses, long sleeves and head covering; 2) drink plenty of water while working outdoors; and 3) keep pruning instruments sharp and at original bevel. Sharpen bi-cut pruners on one side only, lightly filing off burrs that form on the other side. Sharpening often and removing less metal at any one time is the best technique for maintaining pruning equipment.

Pruning is an overall dwarfing process with localized rejuvenation. Hands-on experience in pruning is essential for success, according to Dr. Keith Striegler, Extension horticulture specialist — fruits, who stressed that it is important to differentiate between pruning (removal of vegetative parts of the plant during dormancy) and training (removal of plant parts during the growing season). Reasons for pruning include: 1) to maintain plant structure and control size, 2) to open canopy to light in order to influence yield and quality of fruit, 3) to regulate "cropping" for proper maturity (Thinning, Striegler added, is often necessary for some fruits beyond simple pruning control in order to prevent alternating years of excessive crops followed by small yields.), 4) to rid plants of unhealthy wood, and 5) to maintain good sanitation practices in order to prevent disease.

The first step in actual pruning is to determine where the fruit buds are borne on the tree or plant. Timing of pruning differs according to the size of the job to be done. For the home orchardist, early February is good; however, commercial growers start pruning in late fall in order to get the job completed by spring. Fruit is usually pruned in this order: blackberries, apples, pears, grapes, blueberries and — last of all — peaches. In fact, according to one pruning instructor, the later one can wait in spring to prune peaches, even until blooming has begun, the less likely that frost will damage the crop.

The following pointers (with the fruits arranged alphabetically) were gleaned from sampling as many of the demonstrations as possible, and because my personal focus was primarily on table grapes, they received the greater attention:

Apples, unless grown trellis-style, are pruned to a

central leader system or modified central system. The *central leader system* has one main trunk with scaffolds radiating from the trunk like a Christmas tree; scaffolds should spread to 60 degrees from the trunk. The *modified central leader system* uses a main trunk with multiple leaders or trunks at the top. In both systems, undesirable upright limbs are removed and new shoot growth should be reduced by one-quarter.

Blackberries must have canes pruned back in length in order to reduce the weight of developing fruit on each cane which would otherwise drag the cane down to ground level. Usually only dead or low-hanging limbs are otherwise removed.

Blueberries receive major pruning when five years old. Look for older canes and remove as flush with ground level as possible. Avoiding stubs is important. Remove enough old canes to open up the plant to light and air circulation. Blueberries usually take three years to establish, so it is important to remove flower buds until then.

Grapes are trained either to a *head* or *cordon system*. Head-trained vines are usually cane-pruned, while cordon-trained vines can be spur or cane-pruned. Fruit on grapevines is borne on the current season's growth which develops from buds on one-year old wood (distinguished by its slick bark). Buds on this wood will develop shoots. Canes are wrapped on supporting wire. It is important to calculate the vigor of the vine to be pruned and balance vegetative growth with fruiting potential. A rule of thumb is to leave 12 to 16 buds past the basal bud per cane. Very healthy vines can support a total of 40 to 50 buds. Spurs are canes that are cut back to two buds to produce next year's fruiting wood at a desired location.

Cordons are woody extensions of the vine trunk, long arms which remain in place for two years or longer. Cordon-training takes longer, with more pruning cuts, but requires less tying than head-trained vines. Some varieties adapt to cordon better than others, and all cordons need to be renewed no later than every seven years. Cordoning begins with letting the vine trunk grow just above the height of the support wiring and then developing lateral growth, training the arms along the wire. Leave five bud canes on cordons and two or three buds on renewal spurs. Waiting too long to prune grape vines can be hazardous to the health of the vine. When sap is flowing the canes will snap easily, rather than being flexible in dormancy and easily wrapped to the support system.

Muscadines have dead wood removed and all green canes trimmed back to three buds. Fruit is opposite vegetative buds and is on the current year's growth.

Peaches need the right start. It is important to balance the above-ground tree with the root system. Fall planted bare-rooted plants tend to establish faster. It is good practice to initially prune the plant to a stick-like shape when planting and then choose three or four scaffolds (main limbs) as the tree develops. The most common and well-suited pruning system is the *open center system*. Peaches

See Pruning Workshop on page 6

Gone To Seed

By Linda Murphey

The chief disadvantage of having been born to depression-era parents is my inability to pay full price for anything. When I took up gardening several years ago, the cost of full-grown plants was a shock to my system. My first purchase was out of one of those cheesy tabloid-size ads featuring tree tomatoes on the front page — a complete shade garden for \$50. As a result, three years later, I'm still tearing out monarda, the only thing that lived from that awful box of sucker inventory. That cured me of buying whole gardens by mail.

Cash-and-carry was also more than I could bear. Six dollars for one scrawny little perennial! Surely growing from seed couldn't be too difficult. Last spring I launched into my first venture into horticultural parenthood. It was one of the most exciting things I've ever done. If you've never watched anything grow from seed, you'll love the experience.

Being the sort who never does anything in a small way, I had to have a whole room dedicated to this effort: My spare bedroom. My spare bed. My spare electric blanket on my spare bed. Friends came to marvel at my seed-growing setup: shop lights strung from ladders and those long-abandoned stereo speakers; and boxes of soilless mix as far as the eye could see.

That electric blanket perked on for two months. I had to hire a sitter for the seeds when we went out of town. The tiny progeny consumed my mornings, noons and nights. I learned a lot about what not to do that year, which I gladly pass on to you: 1) Do not plant an entire package of anything. If they all die, you'll regret it. If they all live, you'll regret it. 2) Do find some way to label your baby plants. Like real children, you'll forget their names. And if by some miracle they survive, you won't recognize them later, guaranteeing that they will be cut off in the bloom of youth, mistaken for weeds. 3) Do not bother with anything that Wal-Mart can sell six for \$1.50. By the time you figure up the shop lights, soilless mix, seeds, containers, heat, lights, fertilizer, anti-fungus stuff and babysitter fees, it's not worth it.

Save your efforts for something really special, like 'Stella d'Oro' daylilies grown from seeds gathered at the neighborhood bank. (They thought I was a bag lady looking for discarded hamburgers.) Or a really scary hairy seed liberated from the San Antonio Botanical Garden. I still don't know what it is, but it grew out real well. I'm expecting it to scratch on the window and wake me up some morning soon.

I have some real surprises in store this spring. There's that envelope full of seeds from Kew Gardens ("Cor they just fell off in my hand!") What a wonderful business, this gardening.

Now, what did I do with that electric blanket? ♦

Spring inspires much wanderlust,
a lot of gardening, and a little bit of bad poetry.

— Bern Williams

Trading Post

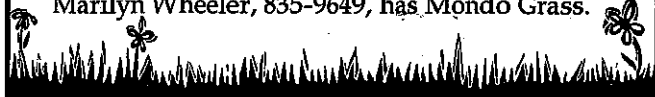
By Frances Young

Julia Dame, 664-1410, has bamboo — you dig.

Suzanne O'Donoghue, 661-9658, has nandina and liriopse.

Lou Sanders, 221-9722, has liriopse.

Marilyn Wheeler, 835-9649, has Mondo Grass.



Sources of 1999 All-America Selection Winners

The December issue of *Master Minutes* listed a brief description of each new variety. This is a partial listing of seed companies offering the 1999 Winners.

Geo. W. Park Seed Co., 1 Parkton Ave., Greenwood, SC 28647-0002, offers 12 winners in its catalog and stores.

The following companies offer six to 11 winners in their mail order catalogs:

Dominion Seed House, Box 2500, Georgetown, ON, Canada L7G 5L6

Liberty Seed Co., P.O. Box 806, New Philadelphia, OH 44663-0806

Harris Seeds, P.O. Box 22960, Rochester, NY 14692-2960

R.H. Shumway's, P.O. Box 1, Graniteville, SC 29829-0001

Stokes Seeds, P.O. Box 548, Buffalo, NY 14240-0548

Several 1999 Winners are included in these catalogs:
W. Atlee Burpee Co., 300 Park Ave., Warminster, PA 18974-4818

Otis Twilley Seed Co., P.O. Box 4000, Hodges, SC 29653

J.W. Jung Seed Co., 335 S. High St., Randolph, WI 53957-0001

Penn State Seed Co., RR1 Box 390, Dallas, PA 18612

Pruning Workshop, continued from page 5

bear fruit from the previous season's growth. Full light is needed for both vegetative growth and fruit production. The open center system maximizes light penetration to all parts of the tree. Remove large branches that fill the bowl-shaped middle of the tree. Also remove all suckers (shoots from the base of the tree) and watersprouts (vigorous upright shoots on branches) which will shade fruit-bearing shoots.

Pears benefit from the same style of pruning as for apple trees.

Plums can be pruned by following the same practice for peaches.

One final but important point made during the demonstration of pruning peaches was in regard to chemical controls, which applies to all fruits: it is good practice to rotate several different accepted controls rather than limit use to only one. ♦

This article was checked for accuracy by Dan Chapman and Dr. Keith Striegler.

A Trip Worth Taking

By Lynne Woods

I happened to be in Dallas on a business trip, and while studying the local attractions, I came upon the Dallas Arboretum and Botanical Gardens. Being a new Master Gardener, I felt the need to explore.

This fabulous landscape features 66 acres of absolute beauty, divided into 16 "rooms" overlooking White Rock Lake. The Fern Dell is quite fragrant at this time of year, and the camellias are in full winter bloom. The early blooming ornamental fruit trees were just beginning to show color, and the daffodils and tulips were shooting through the soil, looking for the sun just as we were. Even in an overcast sky with a fine mist of rain, one can stroll through the gardens and enjoy the carpet of pansies, knowing how much work went into their planting.

One of the most interesting plants in the garden is native to both Texas and Arkansas — a very large tree known as *Maclura pomifera*, Osage-orange or bois d'arc. A very dense wood, the trunk when cut reveals a vibrant yellow-orange. The Indians used the wood to make bows, hence bois d'arc or arc of the bow. The branches produce a very large thorn and a fruit that when cut was used to poison insects (although squirrels ate the seeds and were not harmed).

Many of the backdrops in the garden are desirable for a photo opportunity such as bridal portraits. While visiting the unique Gift Shop, we spotted a young bride-to-be posing for her portrait, so we took a moment to reflect on the happy occasion. Before long the entire bridal party was looking our way and waving, so we waved right back, soon discovering that they were waving us out of their view.

If you have the opportunity to visit the Dallas Arboretum, I highly recommend that you do. It's a trip worth taking.

Coming March 6 - April 1: Dallas Blooms, Birds in Paradise; Dallas' largest outdoor floral festival.

The Dallas Arboretum, 8525 Garland Road, Dallas 75218, open daily 10 a.m.-5 p.m. Information hotline 214-327-4901. Adult admission \$6.00. Parking \$3.00

Editor's note: The February program at the Pulaski County Master Gardeners was a slide presentation on the Dallas Arboretum given by Paul McDonnell. Both Paul's marvelous slides and this first-hand impression should whet your desire to see this garden. To join a group going this spring, call Bob Callans at 771-7657.

Why did the agave plant cause such a commotion when it bloomed at Britain's Oxford Library in 1995?

It hadn't bloomed since 1896.

© USA Today, 2-16-99

Organic Spring Clean-Up For Your Lawn

By Annette Hurley

Part of your gardening and lawn care should consist of rebalancing your soil with minerals and organic matter, manures, green manures and rock powders. For years, we have applied chemicals for a quick-fix to kill weeds, which only works for the symptoms and not the real problem. Weeds are there for a reason. Most weeds are signs of mineral deficiencies in your soil, and they love compacted soil and bare spots.

By adding the necessary nutrients back into the soil, over a period of time most weeds can be slowed and eradicated. Henbit, crabgrass, chickweed and a host of other weeds are signs of calcium deficiencies. Make sure you use *calcium carbonate lime*, not hydrated or dolomitic lime, as they heat up the soil and burn out the important microorganism populations.

Soft rock phosphate is full of calcium but harder to find in stores in central Arkansas.

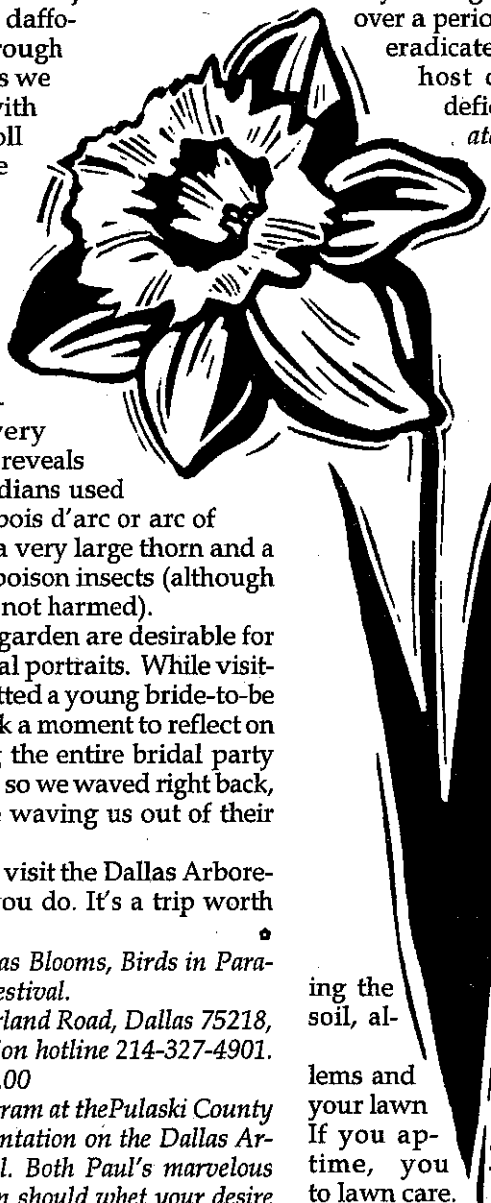
In early spring, there are numerous ways to combat weeds in your lawn without using toxic chemicals. Start by mowing low (don't scalp) and bagging the clippings. This important step nips the weeds in the bud. By collecting the clippings, seed heads are picked up off the ground. Keep mowing low until the weather warms, and then raise the height of the mower until it is at its highest setting. The grass blade is where the plant makes its food. Each time it is cut, its food supply is stressed, so never cut more than a third of the blade. Remember, the longer the blade, the longer the root system. As the grass grows longer, its shade will keep most weed germination from taking hold.

Aeration is a key to a safer approach in treating your lawn. This machine pulls out plugs from the ground, making soil less compacted. It also loosens the soil, allowing more oxygen and water penetration. Compaction creates big problems and is a haven for weeds. You should have your lawn aerated at least once every three years. If you apply calcium carbonate lime at the same time, you can jump-start the organic approach to lawn care.

ing the soil, al-

lems and your lawn. If you apply lime at the same time, you can jump-start the organic approach to lawn care.

Adding manures and organic materials such as compost, you're building up the soil and adding important trace minerals. Your plants become more drought tolerant and disease resistant when using organic products. When your soil is healthy, your plants become healthier. Feed the soil, and let the soil feed the plants. We'll all be healthier for gardening organically.



Book Review



By Lois Clifton

If You Like My Apples

A Simple Guide to
Biodynamic Gardening

By Clue Tyles Dennis and Luke Miller
Avery Publishing Group, Garden
City Park, New York, \$11.95

To grow fruits and vegetables organically is not a new idea. However, growers are beginning to rediscover techniques that have been used before. The book explains how soil and

weather affect plants and gives ways to adapt your garden to the condition of your land. It capitalizes on nature by giving you tips on compost, fertilizer, companion planting, natural pesticides and weeds. Both theory and practical application are given that will be very useful.

Companion planting gives a natural way to enhance plants and to protect them from insects. Herbs belong in every organic garden because they protect the health of plants and soil. Companion planting is simple once you make a garden plan that pairs plants together for their benefit.

Compost and mulch are two of the best things you can give your garden, along with some needed tools that will help with this technique.

If You Like My Apples offers a sane, safe and ecologically sound method of growing the healthiest, hardiest garden possible.

This book will be in the Master Gardeners library after March 1. ♦

(compulink.co.uk/~museumgh). For those searching for a walk on the dark side, there's the Gothic Gardening site (gothic.net/~malice).

Check out magazine back issues, at: Horticulture (hortmag.com), Southern Living (southernliving.com) and Sunset (sunsetmag.com). For a horticultural shopping spree, Garden Escape (garden.com) provides access to thousands of gardening products. And with a quick click on the Virtual Florist (virtualflorist.com), you can send virtual flowers to friends on a whim. ♦

Excerpts from Town & Country, January 1999.

Upcoming Series

Plans are underway for a bi-monthly series of articles covering the garden centers, nurseries, greenhouses and seed suppliers in Pulaski County and Central Arkansas. We invite readers to contact Ann Green at 565-6583 with comments and suggestions.

Spread The News!

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

Please provide your information to us by the date of the MG meeting prior to publication (in other words, if you want people to see your message in the April newsletter, get your news to us by the date of the March meeting. You may bring it to the meeting. You may mail it to Beth. You may call Rose Hogan at 374-9429, or Beth Phelps or Mrs. McKinney at 340-6650. Or you may call Cheryl Kennedy at 753-8192, fax her at 753-6305, or e-mail her at srdriider@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. Contact her before the end of the month prior to publication (end of March for the April newsletter). ♦

Web Gardening

By Claudia Hammans Stallings

It's wintertime and time to let your fingers do the digging on the Internet. Research is easy anytime of the day or night through popular search engines like Yahoo! or Excite. Simply type in "gardening", then zero in on roses or beetles. But be forewarned - you may have to wade through myriad sites and end up mired in the Rose Bowl before landing at the perfect site for hybrid tea roses.

Offering access to more than 60 garden-related forums, the Garden Web site (gardenweb.com) is a great way to get started. For encyclopedic information, nothing tops the Virtual Garden (vg.com), which features access to Barbara Barton's Gardening by Mail, the invaluable reference for garden sources, horticultural libraries, plant societies and professional organizations. Garden-history buffs can unearth the Catalog of Landscape Records, with its impressive database of old garden plans and documents, by visiting Wave Hill (wavehill.org), or immerse themselves in the British gardening empire by calling up London's Museum of Garden History

Continued, next column

Master Minutes Staff — 1999

Chair/Editor	Rose Hogan
Co-Chair/Layout	Cheryl Kennedy
Art	Lisa Hanson Mantle
Photography	Kelly Quinn
Staff	Shalah Brummett
	Lois Clifton
	Nelwyn Davis
	Claude Epperson
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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 1998, these volunteers gave more than 7,000 hours of service.

Elisabeth J. Phelps
County Extension Agent — Agriculture



MASTER MINUTES

April 1999

Volume 10 Issue 3

Master Gardeners Aid Plantsmen Throughout The United States

By Cheryl Kennedy

Who ya gonna call for garden wisdom? Your county extension office, of course. But with such popularity, how does the extension service deal with the ever-increasing demand? Why, Master Gardeners, naturally.

MGs come to the rescue in all 50 states, the District of Columbia and four Canadian provinces. Most of the public's questions are answered by phone, but sometimes people show up in person for help, sample in hand, and, in some areas, MGs even make house calls.

Washington state initiated the Master Gardener program in the early '70s. Dr. David Gibby, then an extension agent in the Seattle-Tacoma area, had been experimenting with mass media to reach the public, but that only increased demand — he had ever more people to reach, and on a "very low budget."

After some more brainstorming, he decided to offer training to gardeners in exchange for their providing answers to the public. The first MG class of 120, trained in 1973, was an immediate success. The program quickly spread to other counties and then to other states. In 1997, Washington's 3,378 MGs logged 147,700 hours and served about 348,000 citizens (a service estimated to be worth more than \$2 million).

Anywhere in the country, MG training is usually held on weekdays because it is presumed that people who can train on weekdays will also be available to volunteer in that same time frame (when help is most needed). Training may include as little

as 30 hours or as many as 120. While the training is free, fees to recover the cost of materials average \$50 to \$75 (and range from free to \$200). Everyone has the open-book exam that we're used to, but some states also have a practical exam in which MG trainees must identify plants, insects and diseases.

The main change in MG gardening trends over the years is a stronger emphasis on integrated pest management, which focuses on how to have healthy plants rather than the use of pesticides.

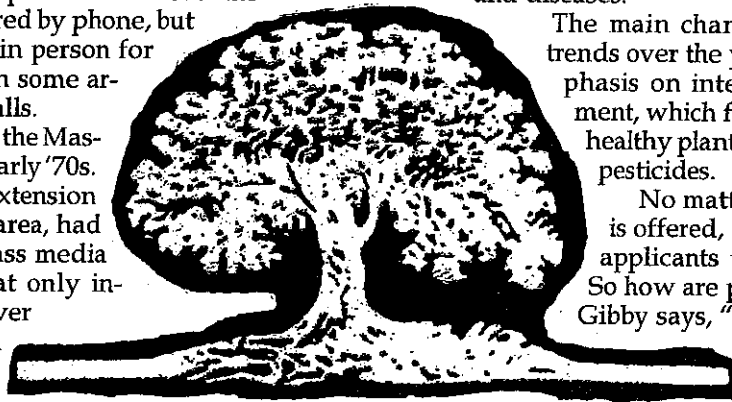
No matter where the program is offered, there are always more applicants than classroom space. So how are potential MGs chosen? Gibby says, "You want people who are giving in their nature. ... The number one criterion is not

gardening interest or knowledge but previous volunteer experience, something that displays a volunteer ethic. We can train people in gardening, but we can't instill that ethic in them."

Of course, all MGs know that volunteering is a two-way street. We may donate our time, but we're also gaining experience and knowledge that is not readily available outside Master Gardening — not to mention the ability to landscape from snippets of coveted plants and shared bulbs, or the long-term friendships we make, or the great trips we take together.

Pulaski, Garland, Saline and Jefferson were the first counties to bring Master Gardening to Arkansas, getting into the act in 1988. Now 45 of Arkansas' 75 counties have such programs. These counties include: Arkansas, Benton, Calhoun, Clark, Cleburne, Crawford, Desha, Fulton, Grant, Hot Spring, Baxter, Boone, Carroll, Clay, Craighead, Dallas, Faulkner, Garland, Greene, Independence, Jackson, Johnson, Little River, Lonoke, Miller, Nevada, Ouachita,

See MGs, continued on page 2



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MGs, continued from page 1

Pope, Randolph, Searcy, Jefferson, Lawrence, Logan, Marion, Montgomery, Newton, Pike, Pulaski, Saline, Sebastian, Sharp, Stone, Van Buren, Washington and White.

Gardeners in a county that doesn't have MG training often can participate with an adjoining county that already has a program, and it is customary for counties to cluster when training.

In Pulaski County, Master Gardeners receive 40-plus hours of training and, in return, make a commitment to give back 40 hours of volunteer service. During their first year, MGs use half their volunteer time to staff the daily horticulture clinic at the extension office and the other half on projects throughout central Arkansas. These projects include:

Working on the Arkansas Flower & Garden Show, held each February.

Maintaining and planting the gardens in the Arkansas Arts Center (mainly containerized plants).

Growing strawberries, blackberries, grapes and blueberries at the Cammack home fruit demonstration garden.

Designing, planting and maintaining the Contemplation Garden, a memorial in MacArthur Park dedicated to victims of violent crime.

Growing plants at the greenhouse on the State Hospital grounds for MG projects and fall and spring plant sales, as well as forcing the multitude of pink azaleas for the annual flower show.

Answering telephone questions daily in a horticulture clinic at the county extension office.

Coordinating and administering horticultural therapy at the Baptist Rehabilitation Institute.

Designing, planting and maintaining the landscape at the Jacksonville City Hall, as well as caring for the

chrysanthemums for the Mums, Muscadines and Music festival each fall.

Caring for and propagating roses at Mount Holly Cemetery, a National Historic site.

Keeping members updated with the newsletter.

Caring for the landscape at the Old Mill, a favorite spot for both locals and tourists.

Conducting educational tours at the Pinnacle Mountain State Park Arboretum.

Relandscaping the county extension office grounds with perennial and seasonal color beds, a foundation planting and lawn.

Staffing a clinic at the Little Rock River Market.

Designing, planting and maintaining flower beds at the State Hospital (in exchange for use of the greenhouse).

Designing, planting and maintaining a decorative and producing vegetable garden at the Governor's Mansion.

Providing a period landscape and kitchen herb garden at the Victorian Cottage, an historic home in downtown North Little Rock.

Designing, planting and maintaining a large flower bed at the entrance to War Memorial Park. MGs also work on a number of smaller projects during the year.

In 1998, Pulaski County MGs worked 8,054 hours — that's nearly 20 percent of the 40,633 hours donated by all Master Gardeners throughout Arkansas!

The national information for this article was adapted with permission from "Mastering Gardening," an article written by Ruth Lively in the February/March 1999 issue of Kitchen Gardener magazine. (By the way, check out an issue of KG at your local book emporium, such as Barnes & Noble; I think it's an excellent magazine with unusually well-written, in-depth articles; it's available in the U.S. by subscription for \$24/year. Go to www.kitchengarden.com, or call 800-888-8286 for more information.)

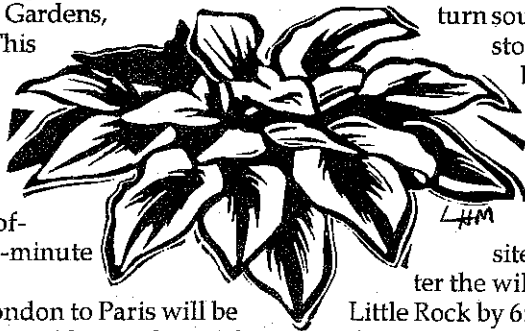
Join Us For "Paris In April" — And London Too!

By Charlene Hardcastle

Join us for a one-day tour of Paris, London and the surrounding area, right here in Arkansas. We'll meet at Second Presbyterian Church off Pleasant Valley Drive on Tuesday, April 27, at 8 a.m. and carpool from there.

The first stop will be Pine Ridge Gardens, five miles northwest of London. This nursery has a wide variety of native plants, herbs, unusual ornamentals and more than 50 varieties of hostas. Although Tuesday is a shipping day for owner Mary Ann King, she has graciously offered to accommodate us for a 45-minute tour.

Our next stop en route from London to Paris will be Subiaco Academy. We will be greeted by Brother Mel at the Coury House on the academy grounds; we have been invited for lunch to be served in the newly renovated guest dining room. Cost is \$6/person. Lunch will be followed by a tour of the school, abbey, visitor center and more than 200 acres of grounds.



From Subiaco, we travel due west through Paris, on to Branch for a visit to Carden-Harris Nursery, which is noted for its Japanese maples (38 varieties!) and azaleas.

From Branch, we travel back through Paris and turn south toward Mt. Magazine, for our final stop of the day. We will be met by Park Director David Flugard and Park Interpreter Carol Birks for a half-mile wildflower hike. Those who like can explore the rest of the mountain, including beautiful Cove Lake at its base and mountaintop rappelling sites and campsites. Those who leave after the wildflower hike can expect to be back in Little Rock by 6:30. Wear comfortable shoes.

Those who wish to make this trip, please sign up at the April meeting and indicate if you are willing to take your vehicle for carpool. Attendees are requested to contribute \$3 to their driver. If you cannot attend the April Master Gardener meeting but would like to go on the trip, please call me (228-6720) or Paul McDonnell (224-9094).

Calendar And Notes

By Laurie Pierce

April

The *Pulaski County Master Gardener meeting* for April will be Tuesday, April 6, at 11:30 a.m., at the state extension office on University. *The meeting will be held a week early to accommodate the statewide meeting April 12-13.*

The *Arkansas Unit of the Herb Society of America* will conduct a plant and garden workshop and sale 7 a.m. - 3 p.m. April 10 at the River Market, 666-3104, 758-3446 or 280-9235.

The *Arkansas Native Plant Society* will conduct a *yellow slipper walk* on April 10 at 10 a.m. Call John Pelton at 501-794-1883

Camden will host a *statewide Master Gardener meeting* April 12-13. Topics will include gardening for bees and butterflies, water gardens, flowering shrubs and trees, heritage roses and drought tolerant landscaping. Other subjects will be city and country garden tours and the cultivation of camellias, bearded iris, lilies and purple martins. The cost is \$60, and registration is due March 19. Call Janet at 671-2174 for a registration form.

Garvan Woodland Gardens in Hot Springs will be open for public tours April 17 and May 8. Call 888-530-6873 for booking information.

The Little Rock Council of Garden Clubs, 1501 Kavanaugh Blvd., will conduct its *annual Extravaganza sale of plants, crafts and baked goods* 9 a.m. - 4 p.m. April 17. Lunch will be served 11:30 a.m. - 1 p.m. and costs \$5.

The *University of Arkansas Native Plant Workshop* will be April 22 at the 4-H Center at Ferndale. Call Janet Carson at 671-2232.

"Here Comes the Sun" is the theme for a *spring festival at Pinnacle Mountain State Park* April 24 and 25. The festival will feature vendor booths, food and workshops by Janet Carson and Carl Hunter. Parking costs \$2. 868-5806.

May

The *Arkansas Native Plant Society* will have a *tour on Mount Magazine* May 1. Call John Pelton at 501-794-1883 for details.

Janet Carson and Kruger Tours will lead a *Master Gardener Tour of Southern Gardens* May 2-8. Featured gardens will include the Biltmore Estate, Cheekwood Botanical Gardens in Nashville, Gardens of the Opryland Hotel, Plant Delights in Raleigh, McMinville Nurseries, University of Tennessee Trial Gardens and the arboretum at the University of North Carolina. The approximate cost of the trip will be \$900. 223-8851.

The Ozark Folk Center State Park in Mountain View will conduct its annual *Lavish Herbal Feast and Heritage Herb Spring Extravaganza* May 6-8. The feast will be May 6; reservations are required. The two-day workshops will be May 7-8 and cost \$70, or \$35 for one day. 870-269-3851.

The *Arkansas Native Plant Society* will *tour Cossatot State Park* at 10 a.m. May 15. Call John Pelton at 501-794-1883 for details.

The University of Arkansas Department of Horticulture will conduct a *horticulture study tour to Philadelphia and Washington, D.C.* May 12-19. Featured stops will include Longwood Gardens, Morris Arboretum, National Botanical Garden and Glasshouse, Kenilworth Aquatic Gardens and the White House. The cost is \$925 and includes airfare and double accommodation. 501-575-2603.

The *Society for Louisiana Irises* will conduct its *National Convention* May 14-16 at the Doubletree Hotel, Little Rock. On May 14 there will be a tour of four gardens. Transportation, a box lunch and other "freebies" \$25. Send check to Ms. Bettye Shaver, 8 Scouts Point, Sherwood, AR 72120. Or call Tom Dillard at 918-3054.

The Marion Daylily Club will host a *tour for the Arkansas Daylily Society* on May 22. Call Bill Moore at 870-739-4026.

The *Peel Mansion Museum* in Bentonville will conduct a historic garden tour May 22. 501-273-9664.

June

The University of Arkansas Cooperative Extension Service will conduct a *Hobby Greenhouse Workshop* on June 10. Call Janet at 671-2232.

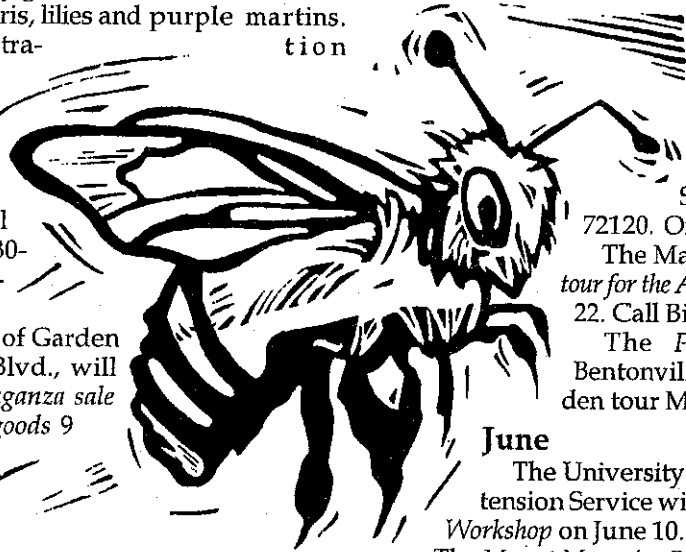
The *Mount Magazine Butterfly Festival* June 11-13 will feature seminars, food, crafts and music. Seminar topics will include butterfly gardening, photography and entomology. Contact the Paris Area Chamber of Commerce at 800-980-8660 or the festival web site, www.butterflyfestival.com.

The *Arkansas Native Plant Society* will *tour Brady Mountain* at 10 a.m. June 12. For details, call John Pelton at 501-794-1883.

The Ozark Folk Center State Park in Mountain View will conduct an *Organic Herb Gardening Workshop* on June 18. The cost is \$40, and preregistration is required. 870-269-3851.

What a man needs in gardening is a cast-iron back, with a hinge in it.

— Charles Dudley Warner



What Works!

By Shalah Brummett

SPRING! After resisting because all the early blossoms seemed premature, I have capitulated and rejoice in every new bloom I see, from the tiniest "fairy flowers" to everything in the nurseries and catalogues. It really is time to be able to get out in our yards and beds and gardens and become lost in growing things, isn't it? Here are new tips and ideas to help out.

• In April we gain another hour of light to garden. *Daylight Savings Time* begins at 1:00 a.m. April 4, which is also Easter. There is a new moon on the 16th and a full moon on the 30th. For *best plant care days*:

Plant above-ground crops: 20, 21

Plant below-ground crops: 3, 4, 12, 13

Destroy pests and weeds: 14, 15

Graft or pollinate: 12, 13, 20, 21

Prune to encourage growth: 23, 24

Prune to discourage growth: 14, 15

This month, we feature a wide variety of ideas — let us know if they are helpful to you.

• What about trying this for weeding thorny roses? Screw a large J-hook into the end of a pole (used a broomstick, etc.) and pull weeds away without snaring your fingers.

• Speaking of roses, follow these basic necessities and you'll have rich rewards.

1. Plant in a location with at least five hours of sun.

2. Dig a hole about the size of a bushel basket and enrich the soil with compost and manure.

3. Set container plants so the surface of the soil in the pot is level with the bed.

4. Set bare-root plants so the graft is above the level of the soil.

5. Slow-release fertilizer is best. Most roses need to be fed at least twice a year, once in the spring and once in late summer.

6. Trickle irrigation is best because diseases aren't distributed around the garden and plants don't lose moisture due to evaporation or runoff.

• *Prune hostas now.* To divide, use a sharp spade to cut out slices of roots from where the plants are too thick or too close to the sidewalls. Fill in any holes with fresh soil or compost; plant your newly acquired hostas in a new shady bed.

• You can *start hollyhocks now*, too. They do best in soil with an average temperature between 65 and 70° F.

1. Sprinkle seeds on the surface of the soil and pat lightly into place before a gentle sprinkling of water. They take about 12-14 days to germinate.

2. Try not to transplant. Sow in biodegradable

containers that can be put right in the ground if you aren't starting there already.

3. After the hollyhocks are a few inches tall and the soil is warmed, plant them, burying the pot, about 18 inches to three feet apart in full sun in good, rich, loose soil.

4. Keep them well-watered and feed regularly with an organic fertilizer.

5. Do *not* use insecticides, fungicides or systemic poisons on hollyhocks. These destroy visitors such as caterpillars, butterflies, hummingbirds and bees.

• *Now is also a good time to transplant bulbs* because there is still lots of room between the new plants.

• You can *start new hydrangeas* (and, actually, any time in the growing season), and an easy way is an old-time method called layering.

1. Select a "mother branch." Pull the branch to the ground and locate a node or leaf joint several inches from the growing tip. If you are layering a shrubby hydrangea, scrape away the dark outer covering of the branch to expose the light-colored cambium layer. If you are layering a climbing hydrangea, be sure that the root-like 'holdfasts' on the stem near the node contact the soil.

2. Make a shallow depression in the ground and amend the soil in it with compost. Lay the section of stem with the scraped cambium or holdfasts on the soil in the depression and pin down with bent wire or pins. Bend the branch tip straight up and stake it.

3. Fill the hole with soil and keep it evenly moist until the buried part of the branch is well-rooted. It can take a season or more for layered branches to root well.

4. After a substantial root system develops, simply cut the mother branch away from the rooted branch tip, lift the new plant and move it to a permanent home. Then trim the mother branch back to a leaf node.

• For a *rich fern bath* soak egg shells in water, then pour that over your ferns.

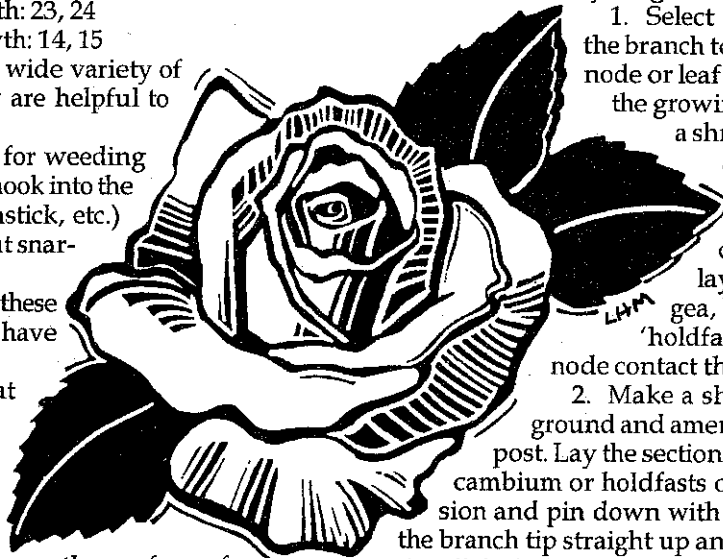
• Lynne Woods got a used golf bag, put it on a *wheeled cart*, filled it with her rake, hoe, shovel, manure fork, etc., then used the side pockets for scissors, pruners and gloves and a golf towel for hand wiping. She says that although her neighbors laugh, it works beautifully for her!

• Before you plant, look over your plans carefully and consider these color cues:

Yellow flowers grown in full sunshine seem to gather brilliance, rather than bleach out like other colors.

Since orange reflects so much light, these flowers tend to look more vibrant on film. This may be why Rosa

See *What Works*, continued on page 7



April Checklist For Gardeners

By Libby Thalheimer

Cutting Class

All spring flowering shrubs may be pruned once they have finished blooming. Remember to let leaves of spring blooming blubs remain until they 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 bumet, chervil, cress, eggplant, lemon balm, marjoram, mints, pennyroyal, peppers, rosemary, creeping thyme, tomatoes and sweet woodruff. 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 like cannas, caladiums, dahlias, gladioli and tuberose can be set out. 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 from the cold frame seedlings 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 plant's chance of success if you keep the ground around it 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 lbs. 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 they grow near the surface of the soil, so granular or foliar feedings both work well.

For the pansies, calendulas 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 10, sow thinly in a well-prepared bed and cover as directed on the seed packet: abelmoschus, beans, cleome, sweet corn, cosmos, crotalaria, cucumbers, gomphenia, marigolds, melampodium, melons, morning glories, 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.

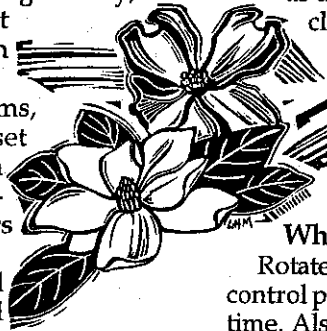
Aphids are hungry for your pansies and other plants this time of year — inspect buds and undersides of leaves for signs of them. Control white fly, aphids and lacebugs with insecticidal soap or another appropriate measure as soon as you notice them (before they get out of control).

Chemical control of black spot should begin in spring as the foliage starts to expand. Additional spray should be applied at two 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, pernywort 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 allyssym, anise Florida, azaleas, bellis, beauty bush, bleeding heart, candytuft, clematis, columbine, daffodils, daylilies, deutzia, dianthus, dogwood, forget-me-nots, grass pinks, heather, iris, yellow jessamine, kerria, lilacs, lily-of-the-valley, maple, moneywort, muscari, oxalis, pansies, phlox, polemonium, primroses, ranunculus, rosemary, roses, sage, St. John's wort, scilla campanulata, shooting star, Solomon's seal, spiraea, tamarisk, thrift, transdescantia, tulips, viburnum carlesii, vinca, violas, weigelia and sweet william.



Garden Bureau Honors Asian Vegetables

Prepared by Laura Anne Wilson

As the National Garden Bureau celebrates National Garden Week April 11-17, it will honor Asian contributions to North American gardens and ethnic cuisine by highlighting five vegetables that are flavorful and easily grown from seed. Part One of this story provides information on the two plants which require summer warmth to create their bountiful harvest.

Eggplants

Eggplants have been grown in China and India since the 5th century. In the 12th century, the Arabs introduced them into Spain, where they became popular as an aphrodisiac. In the 16th century, eggplants moved into England and Italy as ornamental plants only, since they were thought to cause madness if consumed.

Their popularity in all areas of the world today is evidenced by the hundreds of cultivars available. Asian eggplant, *Solanum melongena* var. *esculentum*, belongs to the nightshade family and is called *nasu* in Japan. The glossy black, white, lavender, pink, purple or green fruits are long and slender; they are smaller (and on smaller plants) than traditional Italian and American types.

These sun-loving plants thrive in well-drained soil. They also need rich soil, especially enriched with potassium. Eggplants like warm soil to grow well and take a long time to mature. For best results, transplant eggplants with 24 inches in all directions and mulch plants after soil is warm. They will tolerate hot, dry conditions but perform much better when watered during dry spells.

When eggplants begin to bloom, pinch off some blossoms to force more fruit, and keep an eye out for flea beetle damage or yellowing bottom leaves. This may indicate verticillium wilt. Remove all infected plants to prevent spreading to other plants. Harvest usually begins 70-90 days after sowing seeds, usually when the fruits are glossy, firm, and approximately six inches long. They are best stored frozen.

Asparagus Bean

Asparagus (or yard-long) beans originated in Southern Asia and are now grown extensively in Asia, Europe and the United States. Although they resemble pole snap beans, asparagus beans are more closely related to the southern cowpea, *Vigna unguiculata*.

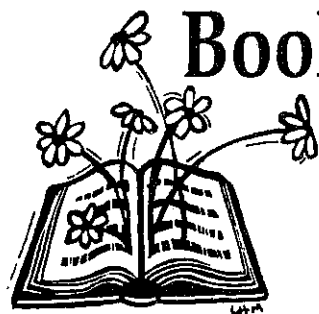
These unique beans grow on twining, delicate stems with a tenacious root system. The plants bloom in mid-summer with pairs of large white or purple flowers. After pollination, tiny dark green beans appear that reach a foot long in only a few days. The beans, which can grow up to three feet long, ripen to a pale green and inflate as the red or black seeds ripen.

Choose a site in full sun with loose soil eight to 10 inches deep. Asparagus beans must be grown with a trellising system at least seven feet high to accommodate the vines. Sow seeds after all danger of frost has passed and soil is warm. Mix in compost or manure to boost soil fertility and install the trellising system at the time of planting.

Plant the seeds two inches deep in heavy soil. If you have a long growing season, make two more successive sowings at two-week intervals. Asparagus beans germinate in about a week and will produce abundantly when the weather heats up. They easily tolerate hot weather and even some drought. However, to keep the beans producing, water in dry spells.

Harvest beans about two months after sowing, continuing throughout summer and into fall. They will be about the size of a pencil and snap when bent. Continuous picking will keep the plants producing. Although the beans will keep a few days in the refrigerator, they are best eaten soon after harvesting or can be blanched and frozen.

The "Year of Asian Vegetables" fact sheet is a service provided by the National Garden Bureau. Write them at 1311 Butterfield Rd. Suite 310, Downers Grove, IL 60515, or phone 630-963-0770.



Book Review

By Julia Loyall

The Savage Garden

Cultivating Carnivorous Plants

By Peter D'Amato

Ten Speed Press, P.O. Box
7123, Berkeley, CA 94707

Peter D'Amato has been fascinated by carnivorous plants since his boyhood. He operates a nursery called California Carnivores, where he has gathered more than 500 species of insectivorous plants, comprising the world's largest collection.

His purpose in writing this book is to provide a guidebook for successful cultivation of these plant world oddities by the home gardener, the hobbyist, or the professional horticulturist.

Current demand for the unusual in ornamental plants has revived a Victorian-era interest in carnivorous plants. Fortunately, tissue-culture propagation has made many formerly rare species available to the public. Wholesale gathering from the wild is not necessary anymore. Many insectivorous plants are protected by endangered species legislation, and special permission is required to take specimens for propagation.

Home gardens as well as botanical gardens can be the salvation of these strange and beautiful plants, as commercial development destroys their natural habitat. However, D'Amato observes that carnivorous plants usually don't last long in the home or nursery if the grower is ignorant of a few simple differences in their culture.

Part One of this book covers the basic principles of carnivorous plant cultivation. Although these plants occur around the world and we may think of them as jungle dwellers, North America has perhaps the greatest diversity.

See Book Review, continued on page 7

Nothing Comes Easy!

By Linda Murphey

A city truck rolled up in front of the house this morning. I get nervous when workers with heavy equipment move into my vicinity. Fortunately, I didn't have to go outside to investigate. They took about 15 minutes to remove a sign which has designated a broken culvert since last October — they had finally fixed it.

Since I retired I have really tried not to be one of those nosy old women, but it's hard not to be interested in what goes on in the neighborhood. I figure I'm just paying back for everything I missed out all those years I worked. So much happens in a neighborhood: people move in and out, they buy new furniture, they get plumbing and roofing work done, they get sprinklers installed.

Which reminds me, the sprinkler guy isn't here yet. In January he said he was looking for a quick job between other jobs. We fell for it. He started the weekend we left town. Upon our return, we had no water, and no telephone, and no sprinkler guy. The next morning after no response on the phone I went out to do battle. I banged on his door. I yelled. I rapped on his windows. No results. So I got serious and called his daddy. God bless that man, he had "Doug," as we'll call him, in the yard in an hour, fixing the water pipe. And the telephone man took care of that line. To be fair, it wasn't Doug's fault. He dug where the utility people said it was safe to dig. They were wrong.

Did I mention we have a motto at our house? "Nothing Comes Easy." I should do a needlepoint pillow. That very afternoon the ice storm came. And knocked out the power. So we had a three-star utility day. But I digress...

Doug and his helper worked about five minutes a day from then on. Mud and rocks were everywhere. I tried to turn a blind eye to the catastrophe. I couldn't see outside anyway, being mostly on my hands and knees wiping up the tracked-in-mud. A few weeks ago, he said they were nearly finished. I should have recognized that as an "NCE" warning sign. Then the pipes started to splinter and heave out of the ground.

"This has never happened before," he moaned. Well, of course. Only at the Nothing Comes Easy International Headquarters on Old Forge Drive.

Finally he had it up and running. I tried to look knowledgeable while he demonstrated how to punch up the keypad to make everything spray. He would come back later to roll out the sod hills all over the yard. Yeah, right.

Two days later, Doug has yet to show. At 6 this morning water is shooting out into the street and running down the driveway. The keypad is incomprehensible.

Water gardenin^g, anyone? *

**The most telling quality
in any garden is the fact
that it is loved.
Nothing else matters.**

— Mary Keen

What Works, continued from page 4

Tropicana, an orange-toned hybrid tea, is considered to be the most photogenic rose in the world.

Lavender flowers often vary in color, according to their age. They start out more deeply toned, but often fade toward mauve. As a result, a single plant can display interesting shading.

Blue is hard to photograph accurately, usually appearing more red than reality. Be wary of the blues you see in catalogues because of this "ageratum effect."

Pale blooms are at their best in diffused light, so place them in dappled sun apart from strong midday rays.

Hot, dynamic shades surge forward and dominate the cooler tones, so balance them visually with four to five times as much cool color. *

"What Works!" is a forum for gardening, design and craft ideas. We want to share unique ideas from your own experience, magazines, television, friends and neighbors. Call Shalah with hints and ideas, be ready to jot them down at the monthly Master Gardener meeting, or write "What Works" c/o Beth Phelps, Pulaski County Extension Office, 2901 West Roosevelt Road, Little Rock, AR 72204.



Book Review, continued from page 6

Climates differ, but habitats are strikingly similar, whether in New Jersey, South Africa or Australia. These bog plants are found living in low-nutrient soils where slow-moving water carries minerals away. Soil is sandy and acidic, with some sphagnum-type moss, which eventually becomes peat. Any trees are few and stunted, usually evergreens like pines. Therefore environments are sunny, wet, acidic and low in nutrients. The plants must get needed nutrients from the creatures they entice into their traps. Although D'Amato chooses the term "insectivorous," many also eat small mammals, like baby monkeys. For carnivorous plants to prosper, the grower therefore must provide similar conditions (but not necessarily small animals).

D'Amato gives tips on soil components, types of containers, humidity trays, lighting, food sources, whether to use fertilizers and coping with insect pests.

He stresses that use of hard tap water will soon kill these plants in containers and is the usual cause of their demise in the home. Bottled spring water may be high in mineral content. Water should be distilled and low in sodium. Rain water is desirable.

Although the plants seem so exotic one might wonder how they could be successful houseplants, D'Amato makes this definitely achievable. Part Two describes where carnivorous plants may be grown: cold frame, greenhouse, window sill, terrarium, tank, dish garden, patio container or garden. You may have a wet area in your yard where you can create a bog garden. Photographs show carnivorous plants growing in pockets near a water feature, in an antique bathtub and in raised beds with stone and concrete walls. Plastic urns, tubs or wading pools can serve outdoors or in your greenhouse, holding pots with separate plants.

See Book Review, continued on page 8

Arkansas Arboretums

By Lynne Woods

I've lived in Arkansas for 40 years (all of my life) and traveled to 24 states in the continental U.S., Hawaii, Mexico, Scotland, England and Ireland, and now I have made my first trip to El Dorado, Arkansas. And yes, I did so on purpose.

I must say that the journey to El Dorado was just as interesting as the final destination. As you travel south Arkansas through timber country, there's something refreshing about these rural areas. I drove through seven counties to get there. I watched groups of large blackbirds share a street pizza in the middle of the road. A sight I had never seen before was a little black pig sleeping on the shoulder of the road. He was still there when I came back through. He must have had a rough Saturday night. Two hours later, I reached my destination.

El Dorado is home to one of the few arboretums in our state. The South Arkansas Arboretum, located 117 miles south of Little Rock, adjoins the El Dorado High School. The 13-acre unit was originally developed as an educational site where the natural flora of the Arkansas West Gulf Coastal Plains could be studied and preserved.

This arboretum is, of course, a work in progress. At this time of year, the azaleas are in bloom, as well as daffodils. Nature paths and hiking trails guide visitors through the arboretum into three different area classifications. The Western sector is a high development area with a gazebo and public restrooms. The Central sector is a low development area with ponds and creeks that is allowed to grow naturally. The Eastern area is primarily for botanical study and educational purposes. Of note in this area are two rare plants, the Arkansas oak and the dwarf pawpaw.

The South Arkansas Arboretum is open from dawn to dusk, seven days a week, except for designated holidays, and guided tours led by botanists may be arranged in advance by contacting the South Arkansas Community College, P.O. Box 7010, El Dorado, AR 71731-7010. Phone 870-862-8131, ext. 251. From Ark 82B in El Dorado, turn north on Timberlane and go one mile.

The following are trees of interest in the arboretum. See if you can match the common name with the botanical name.

1. Fringe tree
 2. Fall witchhazel
 3. American hornbeam
 4. Devilwood
 5. Sweet-bay Magnolia
 6. Hophornbeam
 7. Chinese tallow-tree
 8. Cock's-spur hawthorn
 9. French mulberry (Beautyberry)
 10. Kwanzen Japanese Cherry
 11. Winged Elm
- __a. *Ostrya virginiana*
__b. *Ulnus alata*
__c. *Sapium sebiferum*
__d. *Chionanthus virginicus*
__e. *Prunus serrulata* Kwanzen
__f. *Magnolia virginiana*
__g. *Hamamelis virginiana*
__h. *Osmanthus americana*
__i. *Carpinus caroliniana*
__j. *Crataegus crus-galli*
__k. *Callicarpa americana*

We'll print the answers in the next newsletter. *

Book Review, continued from page 7

Many carnivorous plants are hardy here, especially when growing in a bog garden.

Part Three of *The Savage Garden* provides the information you need on specific plants. It catalogs the popular genera of insect-eating plants with "history, habitat and habits," including their specific cultural requirements. Fascinating stories follow about the Venus fly trap, American pitcher plants, cobra plants, sun pitchers, sundews, Australian pitchers, rainbow plants, butterworts, bladderworts, tropical pitcher plants and others, including a few bromeliads. The often beautiful accompanying photographs are mostly of plants from D'Amato's nursery.

Appendices describe in vitro cultivation and resources like the International Carnivorous Plant Society and the Nature Conservancy.

D'Amato warns the reader that these plants become pets and that you shouldn't feed them chocolate. Although they like it very much, it's bad for them. *

This book will be in the Master Gardener library after April 1.

Any book about gardens... must have its sources in dreams! — Lena Mae McCauley

Trading Post

By Frances Young

Carolyn Newbern, 663-1222, has Jasmine nudiflorum.

Sue Anderson, 771-2447, has tiger lilies, wants shade plants.

Pat Green, 835-6215, has two compost bins — one is the "orb" shape, one is square with lids, PVC. (patgarden@hotmail.com)

Mary Evans, 664-7863, has mondo grass, road ditch day lilies.

Rita Johnson, 664-3008, has hyacinth bean vine.

Earl Hillard, 501-330-2232, wants shade plants.

Martha Whitehurst, 868-4517, wants hyacinth bean vine.

Linda Murphey, 224-5216, has morning glory seeds, wants dwarf mondo.

Lynne Woods, 791-0456, has yellow cannas.

Gladys Whitney, 663-2828, has 2 standard hibiscus, double peach, about 5 feet tall — not hardy!

Master Minutes Staff — 1999

Chair/Editor	Rose Hogan
Co-Chair/Layout	Cheryl Kennedy
Art	Lisa Hanson Mantle
Photography	Kelly Quinn
Staff	Shalah Brummett
	Lois Clifton
	Nelwyn Davis
	Claude Epperson
	Ann Green
	Annette Hurley
	Julia Loyall
	Linda Murphey
	Gena Norris
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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 1998, these volunteers gave more than 7,000 hours of service.

Elisabeth J. Phelps
County Extension Agent — Agriculture



May 1999

Volume 10 Issue 4

Garden Bureau Celebrates Asian Veggies – II

Prepared By Laura Anne Wilson

During National Garden Week last month, the National Garden Bureau celebrated the Asian culture and its contributions to North American gardens and ethnic cuisine by highlighting five vegetables that are flavorful and easily grown from seed. In last month's issue of "Master Minutes," Part I of our story addressed the two featured vegetables which require summer warmth. This month's final installment provides information on the other three vegetables, which are transitional crops grown best under spring or fall conditions.

Daikon

Daikon is the Japanese name for the radish that is so popular in Asian cuisine. Daikons are long, narrow and usually white, green or creamy yellow. They range from two to three inches in diameter and from six to 15 inches long. The shape is commonly round. Along with other types of winter radishes, daikons belong to the species *Raphanus sativus* var. *longipinnatus*.

Like other root crops, daikons must have nutritious, loose, deep and friable soil. They are a cool season crop that is harvested in spring or fall. Sow seeds about two months before the last frost and plant 1/4 to 1/2 inch deep. Thin seedlings to eight to 12 inches apart.

There are heat-tolerant varieties, but keep plants well watered in dry times to keep roots tender. Fertilize four weeks after planting with high phosphate, high potash fertilizer. Watch for root maggots – a sprinkling of wood ashes around the plants will help curb the damage.

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Daikons are ready for harvest 50 to 60 days after sowing. It is best to harvest all of the plants and store them for use. Dig carefully with a spading fork to avoid harming the roots. Daikons can be stored for several months in a refrigerator, root cellar or cool basement in damp sand. They can even be blanched and frozen.

Pak Choi

Pak choi (bok choi) is native to eastern Asia, where it has been grown for thousands of years. The Celts brought the vegetable to the British Isles, and it became popular in Europe. The name means "white vegetable" in Chinese, and it is grown for its thick, white, tender stalks. (The leaves are dark, glossy green with white veins.) It is often called celery cabbage, Chinese celery or Chinese mustard cabbage. Pak choi is a member of the mustard family, *Brassicaceae*, to which cabbage, mustard, broccoli, kohlrabi and turnips belong; it is more closely related to mustard than cabbage.

Pak choi grows best in full sun, in a somewhat cool spot, in very well-drained soil. Plant pak choi in the very early spring and again in mid to late summer. In climates with hot summers like Arkansas, start the plants indoors six to eight weeks before the last frost. Plant two to two-and-one-half feet apart.

Pak choi is a heavy feeder, so fertilize with composted manure or a balanced fertilizer four weeks after setting out transplants. Take precautions against cabbage worms, cabbage root maggots and flea beetles. Some gardeners have luck keeping flea beetles at bay by alternating rows of pak choi with garlic and green onions.

The greens can be used as early as 30 days after sowing, but it takes about 50 to 60 days to have harvestable heads. Pak choi will keep several weeks in the refrigerator and can be blanched and frozen to add to soups and stews.

Snow Peas

Snow peas originated in the Mediterranean and were grown widely in England and Europe in the 19th century. They were called English sugar peas, or *mangetout* in France. The Chinese adopted these peas into their own cuisine from the English, and they have been known as Chinese snow peas ever since. Snow peas have light green pods that follow purple or white sweetly scented flowers. Some varieties climb with twining tendrils to four or five feet and other varieties are dwarf types, only growing two to three feet. Snow peas are true legumes, classified as *Pisum sativum* var. *macrocarpon*. They need soil that is rich in phosphorus and potassium, so add fertilizer high

See *Asian Veggies*, continued on page 7

Calendar And Notes

By Laurie Pierce

May

The Ozark Folk Center State Park in Mountain View will conduct its annual *Lavish Herbal Feast and Heritage Herb Spring Extravaganza* May 6-8. The feast will be May 6; reservations are required. The two-day workshop will be May 7 and 8 and costs \$70, or \$35 for one day. 870-269-3851.

The *Arkansas Native Plant Society* will tour Cossatot State Park at 10 a.m. May 8. Meet at the west-side parking lot on Highway 4. 501-794-1883.

Crowley's Ridge State Park will host its *4th Annual Wildflowers on Wheels* tour May 8. The guided wildflower tours will circle around Lake Ponder and are designed for those with physical disabilities. Free. 870-573-6751.

The *Pulaski County Master Gardeners' monthly meeting* will be at 11:30 a.m. May 11 at the state office on University Avenue. 340-6650.

Village Creek State Park in Wynne will present its *Birdwatcher's Weekend* May 14-16. Activities will include guided hikes, lectures and a birds of prey program by Knox Martin of the Memphis Zoo. Free. 870-238-9406.

The Society for Louisiana Irises will conduct its *National Convention* May 14-16 at the Doubletree Hotel, Little Rock. 666-9160.

Mountain View's Ozark Folk Center will conduct its annual *Organic Greenhouse Workshop* for beginner and intermediate level gardeners, May 21. Bring a sharp pocket knife and pruning shears. Preregistration is required; admission is \$40. 870-269-3851.

The Marion Daylily Club will host a *tour for the Arkansas Daylily Society* on May 22. Bill Moore, 870-739-4026.

The Peel Mansion Museum in Bentonville will conduct a *historic garden tour* May 22. 501-273-9664.

The Ozark Folk Center State Park will host its *10th Annual Garden Glory Days* May 28-June 5. Activities will include guest speakers, herbal demonstrations, afternoon tea and garden tours. Day tickets cost \$7.50 870-269-3851.

June

The *Annual Master Gardener Picnic* will be held June 3 from 5-8 p.m. at the 4H Center in Ferndale. Tickets will be \$8 for adults and \$6 for children ages 12 and under. Send ticket money to the extension office before Thursday, May 27, for reservations. If there is enough interest, for those unable to drive to the 4H Center, we will try to provide shuttle service from a west Little Rock location. (See important note below!) 340-6650, or Jane Druff, 821-2531.

The University of Arkansas Cooperative Extension Service will conduct a *Hobby Greenhouse Workshop* on June 10. Call Janet at 671-2232.

The *Mount Magazine Butterfly Festival* June 11-13 will feature seminars, food, crafts and music. Seminar topics will include butterfly gardening, photography and entomology. Contact the Paris Area Chamber of Commerce at 800-980-8660 or the festival Web site at www.butterflyfestival.com.

The Ozark Folk Center State Park in Mountain View will conduct an *Organic Herb Gardening Workshop* on June 18. The cost is \$40, and preregistration is required. 870-269-3851. *

Book Review

By Lois Clifton

Beds And Borders A Garden Project Workbook

By Richard Bird

New York, Stewart, Tabori & Chang, 1998

When making a garden, why not make use of your borders? Richard Bird's beautiful, useful book offers many suggestions that can be used to enhance your garden. His book has suggestions for using color, smooth or rough texture, scent or sound (for instance, leaves that rustle).

The book is beautiful to look through, with its colored pages that fold out to give you the layout of how to plant. Bird gives suggestions for many kinds of borders — from traditional, one-color, and those in the finest English garden tradition, to dry Mediterranean borders.

Or maybe you would like an edible border, or a rose trellis walk? They are all covered, and many more, with a planting scheme, the tools, and the materials you will need for each one. In addition, he covers maintenance — how

to train and support your plants and how to care for them throughout the year.

He covers all kinds of ways to fix your beds and borders and will be glad for you to copy what he has suggested. However, you are also encouraged to experiment and use your own plants and colors that you prefer.

This book will be in the Master Gardener library after May 1. *

Your Help Is Needed!!!

We'd like to have lots of *door prizes* for the Annual Master Gardener picnic, to be held June 3. To accomplish this, we are asking for donations: special plants, gardening gadgets, etc. If you have anything to contribute for a door prize, please bring it to the May meeting, or call Jane Druff at 821-2531.

In addition, we plan to have the *annual plant swap*. Please bring those plant items for the swap with you to the picnic.

Hope to see you all there!

— Jane Druff

May Checklist For Gardeners

By Libby Thalheimer

Sow What

Begin planting green beans, lima beans, eggplant, cucumbers, melons, peppers, squash and tomatoes. Soak okra seeds overnight before planting. Sow Clemson Spineless, Annie Oakley, Lee and Blondy (dwarf plants), and Park's Candelabra Branching (more than one stem per plant for higher yields in less space) on the north side of your vegetable garden so that tall stalks won't shade the other plants.

May is the best time to sow Bermuda grass seed.

Dig In

Set out sun-loving transplants: ageratum, wax begonia, chrysanthemum, celosia, marigold, Madagascar periwinkle, petunia, verbena and zinnia.

Or for shade: browallia, coleus and impatiens will be the best. Northern or eastern exposures with partial sun: sweet alyssum, dianthus and lobelia will continue to bloom all summer.

It's still a good time to plant caladiums, cannas and other summer bulbs or container grown trees and shrubs.

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 keep down weeds. Lawn clippings make a good and readily available mulch. If you use manures, they must be thoroughly composted before using.

Who's Bugging You

Spray red-tip photinia with Daconil. (You will probably need to spray two to three times for control.) Continue to spray roses every seven to 10 days with a fungicide to prevent blackspot. Spray fruit trees with a general purpose mix to combat brown rot, scab, codling moth, curculio, and plant bugs. Spray every seven to 14 days from petal fall until harvest.

The first application of lawn fertilizer should be made this month. 2,4-D can be used as a post-emergent herbicide once the grass has turned green. Read the label! Make sure the herbicide you use is compatible with your type of grass!

Slugs may become a problem in strawberry plants. Use diatomaceous earth, commercial baits or sink a container near the plants (with the rim at ground level) filled with at least an inch of beer.

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. Another way: try spraying with a 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), and be sure to spray the undersides of leaves too.

Aphids cause distorted new growth and prevent flowering and fruiting. Kill aphids with insecticidal soap. Be sure to spray the stems and undersides of leaves.

Signs of thrips, especially on roses are discolorized blotches on petals, failure of buds to open properly, and deformed blooms. If suspected, cut the affected flower and pull apart or shake over white piece of paper. Thrips 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 seven to 10 days to elapse between treatments.

Pesticide Caution

Before you buy, read the label! Make sure what you buy is safe and effective for the plant(s) you will be spraying. Before you open the container to use — read the label! Mix at recommended rates — not too strong — damage can be done by too strong a solution may not solve the problem. Be sure to wear protective clothing, i.e., long sleeves, rubber gloves, boots, eye wear and an approved mask.

Cutting Class

Prune spring-flowering trees and shrubs after blooming. 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. Kolkwitzia, quince, spirea, weigela, and wintersweet do need occasional shaping, but Japanese andromeda (pieris), azaleas, loropetalum, and rhododendron are some that very seldom need shaping.

Don't cut suckers that grow from beneath the graft on roses. Instead, push a trowel down beside the trunk so that 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.



fore the label! Make sure you open the container to use — read the label! Mix at recommended rates — not too strong — damage can be done by too strong a solution may not solve the problem. Be sure to wear protective clothing, i.e., long sleeves, rubber gloves, boots, eye wear and an approved mask.

See Checklist, continued on page 4

Organic Fertilizers And Their Different Uses

By Annette Hurley

Organic fertilizers are becoming easier to find in our local stores. However, with the coming of the organic products, we may need help in finding the product that fits our needs. The most effective products are 100 percent organic: manures, compost, blood, and bone meal. "Organic-based" products are simply synthetic products with a little organic matter added. Watch the labels to find the specific ingredients and their uses.

As you start rebuilding the soil, know that most organic fertilizers are rated at 20 pounds/1,000 square feet unless otherwise noted. This begins the humus-building and helps reduce the soil's chemical dependency that has built up. Organic fertilizers contain at least some quantity of all trace minerals in the soil. Most organic products contain carbon, organic matter, humus, hormones, enzymes and beneficial bacteria and fungi. They're slow-release, and plants use the nutrients as they are needed rather than being blasted with synthetic plastic-coated products.

A description of several products follows:

Alfalfa meal — ground up alfalfa hay that stimulates microbes and includes vitamin A, folic acid, nitrogen, potassium, calcium, magnesium, enzymes, amino acids, and trace elements. It is also helpful in suppressing soil-borne diseases. Great for roses and alfalfa tea. 4-1-2*

Bat guano — (bat poop) has natural fungicidal qualities. It is a supplemental fertilizer and is quite potent. Should be used only once or twice a season. Avoid breathing the dust of guano. 10-3-1

Blood meal — slaughterhouse blood, dried. Occasional use of 10-20 pounds/1,000 square feet. 12-2-1

Bone meal — ground up bones, which provide an excellent source of calcium and phosphorus. Great for bulbs and tomatoes. Use at 10-20 pounds/1,000 square feet. 1-12-0

Soft rock or colloidal phosphate — fine particles of phosphate suspended in a fine clay base that includes natural phosphorus, calcium and trace minerals. Use at 20-40 pounds/1,000 square feet. 0-20-0

Compost — Mother Nature's black magic. Should be used as the base for any organic system. High in organic matter, humus, trace elements, minerals, and humic and other natural acids. Has healing and growth powers. Apply a layer one to eight inches thick, depending upon your soil. 1-1-1

Cottonseed meal — an acid pH and good, balanced fertilizer. Unfortunately, cotton is grown chemical-heavy, so look for a meal that has been pressed — this reduces some of the synthetic residue. Use on azaleas and other acid-

loving plants at a rate of 10-20 pounds/1,000 square feet. 6-2-1

Earthworm castings — the best all-around organic fertilizer, high in bacteria, calcium, iron, magnesium, sulfur, and trace minerals. Use at 20-40 pounds/1,000 square feet. 1-1-1

Fish meal — a "hot" organic product that is a powerful natural fertilizer used for flower production on annuals and perennials. Originally used by the Indians for corn production. Use at 10-20 pounds/1,000 square feet. 8-12-0

Greensand — (hard to locate) made from naturally deposited sedimentary marine material that is primarily iron, potassium, aluminum, and magnesium. Excellent soil amendment that should be used with other fertilizers for a blend. Use at 10-20 pounds/1,000 square feet. 0-1-5

Kelp meal — made from seaweed, it is an excellent source of trace minerals and plant hormones which stimulate root growth and regulate plant growth. Also provides soil conditioning and stimulates microbes. 10-20 pounds/1,000 square feet. 1-1-8

Lava sand — a high energy soil amendment that is loaded with trace minerals. Use around sick trees and in seed-germinating trays. It is full of volcanic energy. Use at 20-40 pounds/1,000 square feet. Less than 1-1-1

Use these different products at different times to insure a good balance in the soil. Using organic products builds the soil up and feeds the plants the nutrients as they are needed. Organic products are slow release and stay in the soil, promoting beneficial organisms and earthworms.

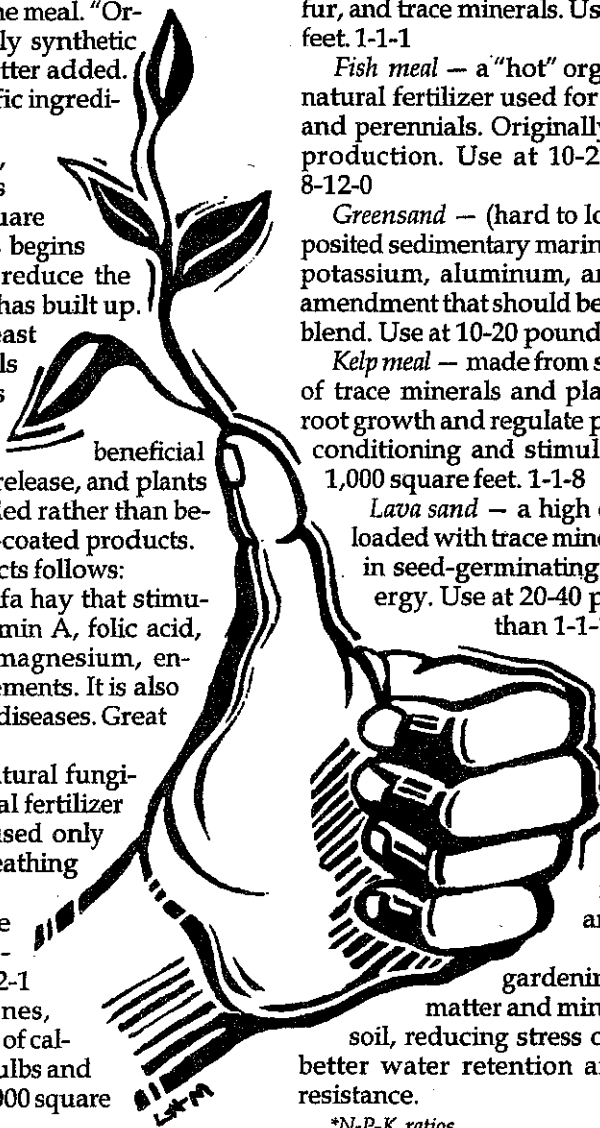
The key to successful organic gardening is to constantly add organic matter and minerals to ensure a balance in the soil, reducing stress on the plants and allowing for better water retention and natural disease and pest resistance. *

*N-P-K ratios

Checklist, continued from page 3

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, tradesantia, veronica, and viola. *



More On "Arkansas Select" Plants

By Gena Norris

Whether you are looking for border plants, splashes of color, or shade-loving plants, there will be a plant to meet your gardening needs on this year's "Arkansas Select" plant list. The members of The Arkansas Nurserymen's Association, The Arkansas Greenhouse Growers, and the University of Arkansas' Cooperative Extension Service combine their efforts to give gardeners a great landscape using both new and proven annuals, perennials and shrubs.

Keep your eyes open in your favorite nursery or garden center for "Arkansas Select" plants throughout the planting months. This will allow you to try something new, while updating your landscape for enjoyment all through the season.

In the March issue of "Master Minutes," two sun-loving annuals New Wonder Fan Flower (*Scaevola aemula*) and *Melampodium paludosum* were highlighted. *Scaevola* is a beautiful blue fan flower that is easily adapted in hanging baskets or in the garden as a border plant. *Melampodium* is a long blooming, yellow, double daisy plant that is not bothered by heat, drought, insects or disease.

The remaining plants on this year's "Arkansas Select" list offer two perennials and a colorful shade-loving shrub.

Magnus Purple Coneflower (*Echinacea purpurea* 'Magnus')

This coneflower is a native wildflower with pink/purple, daisy-like petals surrounding a brown cone center. Choose this perennial for its ease of care and as an attraction to butterflies.

Cultural Notes

Easily grown in any garden soil, but prefers a moderately rich, well drained site. Plants will grow to a height of 30 inches on 24-inch mounds.

Encourage continued blooming by promptly dead-heading spent blooms.

Propagation

May be obtained in containers or started from seed and planted after the danger of frost has passed. Once established, this plant is very tolerant of drought and stress.

Variegated Solomon's Seal (*Polygonatum odoratum*)

Looking for a perennial to fill in that shady area where nothing seems to want to live? Look no further than Solomon's seal. This perennial, native to Japan, is a "cheery" way to enliven those dark corners.

Plan for the future because Solomon's seal becomes more beautiful each year as it forms a dense stand of variegated foliage. Don't forget to enjoy the delicate bell-shaped flowers found under the leaves in spring.

Cultural Notes

Solomon's seal will grow to a height of 24 to 30 inches. Don't expect more than a few stems from the root system the first year, but look for an eventual dense mat several feet across.

This plant will thrive in shady areas, with soil amended with organic matter and well-watered during periods of drought.

Propagation

Available during the spring as bare-root plants or during late spring and summer grown in containers.

Variegated Solomon's Seal has a very hardy root system, allowing it to compete well, if planted in the shade of trees or shrubs.

Oakleaf Hydrangea (*Hydrangea quercifolia*)

This is the shrub on the "Arkansas Select" list. If you have a spot of shade, this beautiful plant will be a welcome addition to your landscape, providing lovely cinnamon-colored stems in winter, broad thick leaves with large white blossoms in the summer, and beautiful fall color when foliage changes range from pink to fire to brown. I only regret that my shade is in the backyard, because I want to show this plant off in the front!

Cultural Notes

Easily grown in a shady or partly sunny spot. Water well for the first two years. Once established, the shrub is drought tolerant. Oakleaf Hydrangea will grow to a height of six to seven feet at maturity.

Propagation

May be planted at anytime, only subject to nursery availability.



Wildflower (Species) Tulips

By Julia Loyall

I first encountered tulips while following the charming brick paths of a New England garden a very long time ago. At the time I hated gardening, because Mom often volunteered us for weeding duty in the vegetable garden next door. A weed-free dream of dazzling tulips in my own beautiful garden began then, and materialized partially much later when son Joe brought home a packet of fat bulbs he had won at a scout meeting. The next spring, a circle of tall red tulips appeared where we had planted them, around the middle oak tree in the backyard. They have been a delight every spring since but two, when only oversized leaves circled the tree, and flowers skipped a year. Joe has his own family and backyard garden now — I must take him some of his tulips.

Expecting to repeat the stellar performance of the Boy Scout tulips, I ordered three dozen bulbs from Holland which promised "beauty year after year." When I think about it, that phrase means two years. Those tulips were spectacular the first year, but have steadily bloomed less over the five-year period. This year, there were nine whites, two yellows, one apricot, one tall red, one pink and a rose-purple. Only the white tulips actually increased. Both sets of tulips have been fertilized faithfully each year, but performance has been vastly different.

Janet and Beth tell us most of our tulips don't get sufficient nourishment from their leaves here after flowering to rebuild for next year's bloom because our quick spring warm-up causes the foliage to die back too soon. Also, in some mild winters they do not get the number of cold days they need to rest.

Those Yankee tulips I remember had many chilly days, believe me, and they flower with the daffodils, not as the daffodils die back, so they are more reliably perennial.

What can Zone 7 folks do? We can find more tulips like Joe's red ones. Bob Ward and the Victory Gardener say we should switch to species tulips, the wildflowers of the tulip kingdom, the flowers which started the "Tulip Wars" of the 16th century, when lives were lost and fortunes were made in pursuit of these fabulous bulbs.

Bob is a very experienced gardener, an expert on Pacific Coast and South African irises. He has a beautiful collection of Japanese maple trees, and has raised species tulips for 15 years with obvious satisfaction.

Bob wants us to keep in mind the special needs of tulips by considering their place of origin. The wild tulips

naturally range from eastern Europe, the Caucasus Mountains, Turkey and Iran into the southern Russian republics. They are found in mountainous areas with cold winters. Drainage is excellent. Bob placed his tulips in the coolest parts of his garden, on the north and east sides. They bloom early on a slope where heavy rain drains off in an hour and a half. A low brick wall shelters them from wind.

He had his soil tested to be sure the pH was between 6 and 7. The soil must be well broken up. If a handful stays in a ball when you clasp it, it has too much clay for bulbs. Bob likes to use gypsum to loosen the soil. Addition of compost would also help.

Species tulips should be planted so the top of the bulb is six to eight inches below the surface. Deep planting helps keep the bulb cool. Bob recommends that you till the soil down at least two inches below where the bottom of the bulb will rest.

I asked him about overplanting with peonies or hosta, as one source recommends for keeping bulbs cool. He pointed out that such plants require more water than would be good for bulbs. He uses no mulch for the same reason.

Species tulips are more reliably perennial than hybrid tulips in general. Still, none of Bob's tulips has lasted the whole 15 years. They need to be replaced after eight to 10 years and sometimes begin to decline after five or six years.

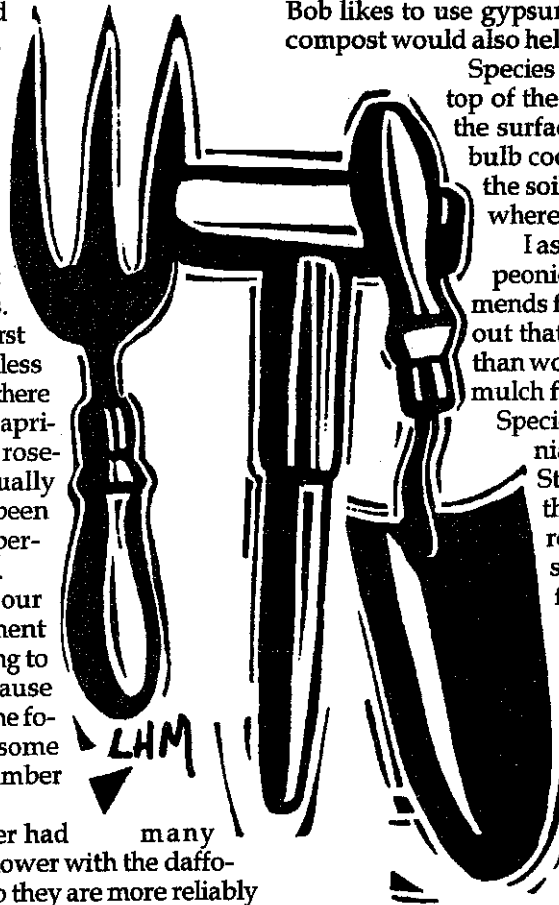
When he sees a tulip's vigor fading, Bob gathers seed to propagate. Species tulips will seed true. He lets a seed pod mature and picks it when a crack begins. After you take a seed pod, leaves yellow. Pull them only when they detach easily. Don't fertilize until March 15 the following year. Use bulb fertilizer. Rains will push the fertilizer

down into the soil and the plant will revive the next spring.

Plant your seed immediately in Styrofoam cups with a hole in the bottom. In the first year you have just a seedling which slowly grows. In the third and fourth years it becomes a tiny bulb, the size of your fingernail. Increase the size of your pots gradually to quart size the fourth year when the seedling goes into the garden. Blooming begins five to eight years from the seed stage. This renews your planting.

Local nurseries carry some species tulips from Holland, and they're available from mail-order houses. Follow the

See Tulips, continued on page 7



Arkansas Arboretums — Part II

By Lynne Woods

Just minutes from downtown Little Rock and the hustle of our hectic lives, Pinnacle Mountain is the ideal place for those of us wanting to get away without traveling far. Tucked between the city and the wilderness is the Arkansas Arboretum.

Open from dawn til dusk, the arboretum features native trees and shrubs from all regions of Arkansas. Divided into six natural divisions and geographic regions, a 0.6 mile, paved barrier-free trail with interpretive signs is open for public use. More trails are planned in the future. A water fountain and benches are located along the trail. The six natural divisions are: Ozark Plateau, West Gulf Coastal Plain, Arkansas River Valley, Mississippi Alluvial Plain, Crowley's Ridge and the Ouachita Mountains natural division.

You will see upland and bottomland hardwoods, including the mockernut hickory tree. The wood from this tree is used to make tool handles, furniture, ball bats, and charcoal.

The tulip poplar only grows naturally in the Crowley's Ridge region.

The shagbark hickory has long, loose plates of bark with ends that curve away from the trunk.

The devil's walking stick has slender thorns on the leaf-stalk — don't reach out and grab this one!

You'll see resurrection fern; this is an epiphyte — an air plant that uses the tree for support but gets its nutrients from the sun, air, and rain. When it's dry, the leaves turn brown, curl up, and appear dead. Rain restores it to its natural green.

There is a wealth of information in the Arkansas Arboretum. To make reservations for field trips and other programs by appointment, call 501-868-5806 on any Monday and ask for a park interpreter. *

Tulips, continued from page 6

instructions that come with your bulbs about chilling periods. A local nurseryman suggested I buy bulbs in early fall when he would have the best selection for chilling and later planting after cold weather arrives. Some bulbs may have been pre-chilled when they arrive ready for planting in early spring.

Species tulips are eight to ten inches tall. Petals are closed in the morning and on cloudy days. They open out in the full sun. Their color range is wide: red to yellow, dark violet, pink, mixed colors like red and white, red with black centers, and red with yellow centers.

Bob recommends the following tulips he has in his garden for our area. Planted in clusters, they're attention-getters. *Tulipa turkestanica* has multiple stalks and white starry flowers with yellow centers. *T. afghanistanica* also has multiple stalks. *T. chrysantha* does well. *T. praestans* is red with traditional tulip shape. *T. eichleri* resembles a red parrot tulip. These three are characterized as early hybrids which have the wild tulip characteristics: *T. fosteriana*, *T. greigii*, *T. kaufmanniana*.

Species tulips are also excellent for indoor forcing to brighten late winter days. *

Asian Veggies, continued from page 1

in phosphate and potash. There is no need for nitrogen because snow peas fix atmospheric nitrogen. Select a site in full sun and rotate peas annually to avoid blight and rot. All snow peas need some sort of trellising, even dwarf varieties.

They should be grown as an early spring or fall crop in areas with hot summers. Soak pea seeds 24 hours before planting, and dust seeds with a bacterial inoculant to help boost their nitrogen-fixing capability.

Plant seeds one to two inches deep and install the trellising system at the time of planting: their roots are extremely vulnerable. They need to be well watered during dry spells. Mulch lightly to keep soil moist. Turn plants under when they have stopped producing; this provides nitrogen to other crops. Watch for fusarium and root-rot diseases. These can be avoided with crop rotation and by not planting snow peas too early.

Snow peas are ready to harvest 50-60 days from sowing. Pick when peas are just beginning to swell in the pods. They will stop producing if not picked regularly or when the weather gets hot. Blanch and freeze for storing or eat these peas right after picking. *

The "Year of Asian Vegetables" fact sheet is a service provided by the National Garden Bureau, 1311 Butterfield Rd., Ste. 310, Downers Grove, IL 60515. Phone 630-963-0770.

Word Search

By Lynne Woods

V	W	L	E	W	O	R	T	D	U	B
E	O	R	C	H	I	D	U	Q	A	I
S	N	R	E	F	F	A	L	L	F	V
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D	Z	L	I	O	S	A	K	R	M	U
K	P	E	R	G	O	L	A	S	P	B

Annual	Flower	Lime	Sod
Beans	Greenhouse	Moss	Soil
Bud	Grub	Mums	Sun
Compost	Herb	Orchid	Trowel
Espalier	Ivy	Pergola	Tulip
Fall	Lambs-ears	Prune	
Ferns	Lily	Rose	

(Answers in next month's issue of Master Minutes.)

Trading Post

By Frances Young

Trudy Goolsby, 835-5068, has pink obedience plants.

Nancy Cockman, 664-0007, wants the old "cemetery whites" bearded iris that are in bloom now.

Betty Pagan, 663-7983, has pink obedience plants.

Jan King, 758-3446, has anise hyssop, Argentine sky salvia, monarda, and bog sage.

Pat Green, 835-6215, patgarden@hotmail.com, has compost bins to give away (one orb-shaped and one square plastic).

Lou Sanders, 221-9722, has seedling aucubas, seedling nandinas, small American hollies, small yaupon hollies, and bunch liriop.

Betty Glasscock, 666-2547, has camomile ground cover.

Suellen Roberts, 225-2362, wants white bearded irises.

Margaret Breen, 758-1883, has purple dragon flower. *

Household Chemical Recycling Available

The Pulaski County Regional Solid Waste Management District has just opened a Household Chemical Recycling Center. The HCRC is open every Tuesday and Thursday from 11 a.m. - 7 p.m. It's located at 11400 Ironton Cut-off Road (off Dixon Road).

The Household Chemical Recycling Center collects paint and paint-related materials such as thinner; automotive products such as oil and gasoline; pesticides, insecticides and herbicides; etc. Explosives and ammunition will not be accepted. Only household quantities of common household chemicals will be accepted.

In addition to being able to drop off unwanted household chemical items, those in need can pick up items. The HCRC features an exchange area where people can pick up cans of paint, cleaners, and lawn chemicals others have brought in - at no charge (resale of items is not permitted).

For more information see: <http://www.pulaskiswdistrict.org/Chemicals/> or call 340-8790 or 888-9772. *

Congratulations To You!!!!

The Statewide MG Conference in Camden April 12-13 recognized Pulaski County MGs for the following accomplishments:

A pin and certificate for 10 years of service as an active Pulaski County Master Gardener went to: Cecelia Buck, Sally Garrison, Jane Gulley, Ellen Kane, Pat Marchese, Ruth Owings, Olivia Patterson, Gail Roberson, Martha Staples and Don Thompson.

And for five years of service: Dale Adcock, Kevin Allis, Rebecca Camp, Sharon Carr, Anita Chamberlin, Kristin Huddle, Annette Hurley, Jan King, Peggy Leopoulos, Ken Milligan, Carolyn Newbern, Duncan Porter, Nancy Porter, Cathy Sanders, Jack Singleton, Connie Ruth Smith, Libby Thalheimer, Kathleen Wesson, Martha Whitehurst, Gladys Whitney and Patty Wingfield.

A big round of applause to Jack Singleton for his *Funny Bone Award-winning story* about taking Miss Laura's Girls on a tour of the Old Mill.

Your "Master Minutes" received the *Outstanding Newsletter Award*, based on three issues from January 1998-March 1999. In each issue, there is a list of the staff who contribute 11 months of the year.

Congratulations and thanks to the Master Gardeners from Pulaski County. It is the dedication of each MG that makes our program successful. *

Spread The Word!

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

If you want people to see your message in the June newsletter, please get your news to us by the May meeting. You may bring it to the meeting, or mail it to Beth, or call Rose Hogan at 374-9429, or Beth Phelps or Mrs. McKinney at 340-6650. Or you may call Cheryl Kennedy at 753-8192, fax 753-6305, or e-mail 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. Contact her before the end of May for the June newsletter. *

April Tree Quiz Answers

By Lynne Woods

- 6 a. *Ostrya virginiana*
- 11 b. *Ulmus alata*
- 7 c. *Sapium sebiferum*
- 1 d. *Chionanthus virginicus*
- 10 e. *Prunus serrulata* Kwanzen
- 5 f. *Magnolia virginiana*
- 2 g. *Hamamelis virginiana*
- 4 h. *Osmanthus americana*
- 3 i. *Carpinus caroliniana*
- 8 j. *Crataegus crus-galli*
- 9 k. *Callicarpa americana*

What Works!

Shalah Brummett is taking a sabbatical from the "What Works!" column (which has been a popular way to share what works for gardeners) until the first of next year. She has some obligations which require her attention, and she needs the time she was spending on the column.

Keep notes on what works for you, for the column will be continued in the future! *

Master Minutes Staff — 1999

Chair/Editor	Rose Hogan
Co-Chair/Layout	Cheryl Kennedy
Art	Lisa Hanson Mantle
Photography	Kelly Quinn
Staff	Shalah Brummett
	Lois Clifton
	Nelwyn Davis
	Claude Epperson
	Ann Green
	Annette Hurley
	Julia Loyall
	Linda Murphey
	Gena Norris
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	Libby Thalheimer
	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 1998, these volunteers gave more than 7,000 hours of service.

Elisabeth J. Phelps
County Extension Agent — Agriculture



June 1999

Volume 10 Issue 5

Parsley – An Ornamental Herb

Parsley is a member of the carrot family. It is one of the most nutritious of all herbs. An excellent source of vitamins A and C, it also contains niacin, riboflavin, and calcium.

Parsley's taste appeal is worldwide. Japanese deep-fry it. Greeks mix large amounts of it with tomato sauce to create the unique *moussaka* flavoring. Spaniards use parsley as the prime ingredients in *salsa verde*, and the English make parsley jelly. Both the common (curly) and the Italian (flat-leaved) parsleys are ideal for garnishes and for flavoring soups, stews, salad dressings, and sauces, but Italian parsley reportedly has the best flavor. Grow both types in your kitchen or herb garden.

Parsley As An Ornamental

Parsley is so attractive that it also integrates easily into ornamental plantings in residential landscapes. This is especially fortunate where sunny space is at a premium for both flowers and food plants. Its fine-textured foliage is attractive as neat edging or foliage fillers in flowerbeds, its rich green color setting off the bright blooms of pansies, petunias, and other annuals.

Plant parsley along the edges of windowboxes or planters stuffed with colorful annual flowers. It provides soft foliage contrast to upright, broader leaved container staples such as geraniums. Parsley's drooping stems simultaneously soften the edges of pots and boxes. Because parsley likes cool weather, it can be depended on to provide perky foliage and rich green accents in both spring and fall gardens and container ensembles.

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Recognizing Parsley

Parsley leaves are comprised of three leaflets on short stems which branch in threes at the tips of eight-inch long bare stalks. Leaves of common parsley are dark green with divided tips which curl tightly. Those of Italian parsley are a lighter green and

more deeply divided and feathery, resembling celery foliage. A common parsley plant typically grows nine to 18 inches tall and spreads six to nine inches. An Italian type may grow to three feet tall.

Although parsley is a biennial (its life spanning two seasons), it is usually treated as an annual and is pulled up at the end of the first season. That is why its flowers, which appear in early summer of its second year, are seldom seen. They are flat clusters composed of tiny, greenish yellow florets, and resemble Queen Anne's lace. As with most herbs, flowering tends to make the foliage bitter and less useful for cooking. However, parsley flowers host many beneficial insects, including butterfly larvae, so it may be worth allowing some plants to winter over and flower the next season.

Growing Parsley

Parsley grows best in all-day sun in cooler areas of the country, but appreciates some afternoon shade in warmer climates. The ideal soil is moderately rich, moist, and well drained, although parsley plants tolerate poorer soils having less organic matter as long as drainage is adequate. Soil should be loose to accommodate parsley's taproot and mildly acidic (pH 6.0 to 7.0).

To direct sow seeds in rows, trace a shallow indentation in the soil with a stick or pencil to guide planting. Then sow the seeds by dribbling them through your thumb and forefinger into the indented rows. Plant seeds 1/4 to 1/2 an inch deep. After three or four weeks, when sprouts are a few inches tall and show their first true leaves, thin them to allow eight to ten inches of space between the remaining ones so they can grow freely. Depending on the variety, parsley plants will grow to maturity in about 70 to 90 days.

Plant home grown or commercially raised seedlings on an overcast day or late in the day to minimize transplant stress. Dig holes in the planting bed about 10 to 12 inches apart and about the size of the containers the seedlings are growing in. Gently pop each seedling from its container and set one in each hole. Firm the soil over the rootball and water immediately. If you have added granular slow-acting fertilizer to the soil, do not feed the plants further. Shield newly planted seedlings from bright sun the first day or so while they adjust to the shock of transplanting.

See Parsley, continued on page 8

June Checklist For Gardeners

By Libby Thalheimer

Dig In

You can still plant cannas, daylilies, and gladioli.

Sow What!

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

Cutting Class

Deadhead your leggy annuals, and fertilize with a tea-spoon of 5-10-10 under each plant. Cut roses just over a five-leaf cluster to ensure more growth. Do not let roses die on the vine. Wait until the foliage of spring-flowering bulbs turns yellow before cleaning up the bulb bed. Continue to pinch back chrysanthemums and asters repeatedly until July. Pinch back annual herbs. Thin basil. Shear golden alyssum and hardy candytuft after bloom keep compact and remove seedpods.

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 three-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 water about two hours after application. Placing aluminum foil around the base of the tomatoes, peppers and 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.

Whitefly can be controlled by using insecticidal soap or a strong water spray. Traps can be made by cutting strips of a bright yellow plastic bottle, coating them with petroleum jelly, and hanging them around the gardenia bushes, etc. 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 any 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.

Feed Me!

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

Just Add Water

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

Divide & Multiply

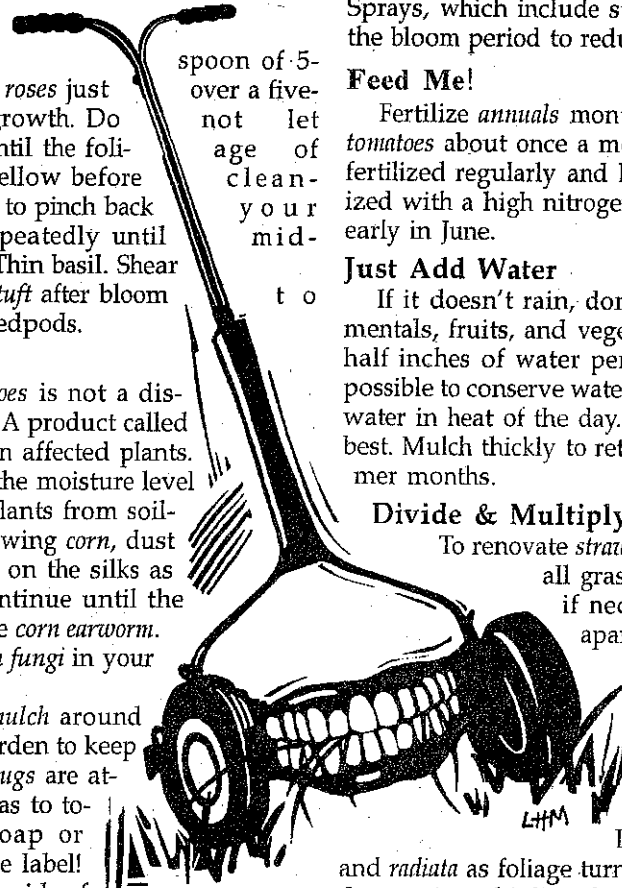
To renovate strawberries after berry season, remove all grass and weeds and thin plants out if necessary. Space plants six inches apart in rows not more than 18 inches wide.

Iris should be left alone for six weeks after blooming, and then they can be lifted and divided. Cut foliage back to three inches.

Lift and replant Lycoris squamigera and radiata as foliage turns yellow. Lycoris tends to get too deep as it multiplies; then it will stop blooming.

June Blooms

Alstroemeria, artemesia, asters, astilbe, azaleas, balloon flowers, beautyberry, blackberries, blackberry lily, buddleia, butterfly-weed, camellia, campsis, cannas, columbine, coreopsis, cornflowers, crinum, oxeye 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.



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Calendar And Notes

By Laurie Pierce

The *Pulaski County Master Gardener picnic* will begin at 5 p.m. June 3 at the 4-H Center in Ferndale. The gathering starts with a wildflower walk led by Carl Hunter. A barbecue dinner will be served at 6:30 p.m. Bring plants to swap with old and new friends. Tickets cost \$8, or \$6 for children ages 12 and younger. Call Mrs. McKinney by May 31 for last-minute tickets. 340-6650.

Master Gardeners from the metropolitan St. Louis area will give four different container gardening demonstrations at the *Missouri Botanical Garden Saturdays* in June. Topics will be: vegetables for containers June 5, herbs for containers June 12, sun and shade June 19 and unusual containers on June 26. Admission to the botanical garden is \$5, \$3 for ages 65 and older. (800) 642-8842 or (314) 577-9400.

A *Pulaski County Master Gardener tour* will replace the June MG meeting at 9 a.m. June 8. The tour will begin at 9 a.m. at the Cammack Village research plots, North University (University of Arkansas System Campus office), then move to the homes of Ruth Jones, Kathleen Wesson and Lou and Cathy Sanders. The tour will conclude at noon at the Pulaski County Extension Office on Roosevelt Road. Bring a sack lunch. 340-6650.

The University of Arkansas Cooperative Extension Service and the Agriculture Development Council will conduct a *Hobby Greenhouse Workshop* on June 10 at the Garland County Fairgrounds. The cost is \$30 and includes lunch. Register by June 1. 671-2143.

The *Mount Magazine Butterfly Festival* June 11-13 will feature seminars, food, crafts and music. Seminar topics will include butterfly gardening, photography and entomology. Contact the Paris Area Chamber of Commerce at (800) 980-8660 or the festival Web site at <http://www.butterflyfestival.com>.

The Ozark Folk Center State Park in Mountain View will conduct an *Organic Herb Gardening Workshop* on June 18. The cost is \$40, and preregistration is required. (870) 269-3851.

The Memphis Botanic Garden in Memphis' Audubon Park will conduct an *Ikebana flower arranging seminar* at 10 a.m. June 21. The seminar costs \$15 and includes flowers. Each participant should bring a plastic water pitcher, a flat container, kenzans and clippers. Register by June 18. (901) 758-8544.

The Missouri Botanic Garden in St. Louis will host the *West County Daylily Club show and sale* June 26-27. Admission to the garden is \$5, \$3 for ages 65 and older. (800) 642-8842 or (314) 577-9400.



What fruit is produced in more than 4,000 varieties?
The tomato.

— From USA Today

Funny Bone Award-Winning Story

This is Pulaski County Master Gardener Jack Singleton's story that won the "Funny Bone Award" at the recent state MG meeting. Enjoy!

I conduct tours at Old Mill, and we have lots of retirement groups that pay this beautiful site a visit. I have learned that when the weather is cool and rainy, the groups often want to stay on the tour bus. I will then tell the story of the Old Mill over the bus PA system and encourage them to get off the dry, warm bus.

I was prepared for such an effort as I met a tour one misty morning last spring. Instead, I was surprised by a group of women who couldn't wait to get off the bus and take it all in. They were laughing and joking and seemed ready for any eventuality — regardless of the weather.

As I delivered my standard talk on the Old Mill, one of the tour members asked if I knew where they were from.

"No," I confessed, I did not.

"We're from 'Miss Laura's Place' in Ft. Smith — do you know what that is?"

I was facing a bus load of 60 smiles — actually more like impish grins — as I confessed, "Yes, even though I am a pastor, I have, in fact, heard of 'Miss Laura's Place.'" They laughed a bus load of belly laughs as I asked them not to let my flock find out that I knew about this historic bordello that has been restored as a tourist attraction.

These women serve as the volunteers at this historic site, and I had the opportunity to meet Miss Laura herself (at least the volunteer who plays Miss Laura). Miss Laura was in her 40s, but the rest of her entourage were from 60 to 85. They couldn't wait to get off the tour bus, even with a bit of rain, and they covered every inch of the place — with questions about everything.

This group was full of energy, vitality and a natural curiosity that was contagious. As I fielded questions, I heard several screams as one of Miss Laura's "girls" (a girl of 75+) had stuck her leg out of a second-story window of the Old Mill and was simulating a cancan step, to the delight of the audience below, made up of Miss Laura, the rest of the gals, and one slightly intimidated pastor-gardener/master-gardener. It was the most fun tour of the 1997-1998 Old Mill Tour season.

I have decided that when I am too old to serve as a Master Gardener, I shall move to Ft. Smith and join the staff at "Miss Laura's Place." I plan to laugh a lot, live a long time, and, who knows, I may even learn to do the cancan.

To own a bit of ground, to scratch it with a hoe, to plant seeds and watch the renewal of life — this is the commonest delight of the race, the most satisfactory thing a man can do.



— Charles Dudley Warner
My Summer Garden, 1870

Hints And Tips From The Current Literature

This will be an occasional column with hints and tips found in the current literature. Hopefully, "What Works!" will appear in "Master Minutes" again soon.

Got An Aching Back?

As gardeners grow older what had seemed so easy no longer appears that way. A no-till gardening system using permanently mulched beds will alleviate the aching back.

Step 1. Use mulch, lots of it. Keep it on your beds year-round. Let the plants, earthworms, water, and gravity do the work for you.

Step 2. In the fall, sprinkle your usual amount of fertilizer (organic) on the soil surface. Cover with a thick organic mulch.

Step 3. Weed if you must. Wait until spring.

Step 4. Begin checking the soil for warming. When it is warm, pull back just enough to make a row and plant your seeds. Let the seeds emerge before you begin replacing the mulch around and between them. Plant transplants the same way.

Step 5. As the mulch decomposes, it will shrink. Add more as needed to keep the depth constant. Water as necessary.

Step 6. Watch out for pests — weeds, slugs, snails, and gophers.

Step 7. Be patient. (*Kitchen Gardener*, Feb/Mar 1999)

Potting Soil Types

Potting soils these days are coming in more flavors than the plain vanilla type. *All-purpose* is the cheapest price-wise and is a good soil for advanced gardeners who want to customize their mix by enhancing it with nutrients or conditioners. Because this type usually has less perlite or vermiculite, plants require more watering and fertilizing and may not drain well.

Premium has a higher percentage of perlite and vermiculite and thus drains better. Roots will hold onto moisture longer. Some have a slow-release fertilizer. It is a reliable all-around mix.

Professionals are more completely processed mixes with a better texture. There is a higher percentage of sphagnum, peat moss, vermiculite, perlite and composted bark.

Specialty is for special-needs plants such as African violets, cactus, and orchids and suit their nutritional and water requirements. (*Better Homes & Gardens Flowering Gardening*, Summer 1999).

Mintier Mint

You can increase the flavor of mint, but you'll have to wait until the end of this year. Leave the pots outdoors so they will have a dormancy period. Bring them indoors before the soil freezes. The period of rest will help the plants

grow better, producing more flavorful leaves.

Also, instead of planting one plant in a smaller pot, plant three in a 10-12 inch pot. Fill the pot with a soil mix containing equal parts peat moss, vermiculite, and sterilized compost. Place the pot in a window for four hours of direct morning sun. Instead of harvesting single leaves, harvest whole stems back to a side branch in the morning when the peppermint oils are most concentrated in the leaves. (*National Gardening*, February 1999)

Weather Lore

Flowers smell sweetest right before a rain.

Birds fly low before a storm. When they fly high, fair weather is on the way.

Count the chirps a cricket makes in 15 seconds; add 37 and you'll have the temperature in degrees Fahrenheit.

Bees stay in the hive when rain approaches.

Dandelions and daisies close their blossoms when stormy weather is on the way. (*Martha Stewart Living*, March 1999)

Tool Cleaning

For tools like spades, forks, hoes, and trowels, the first step is to brush the soil off. Use big floor-scrubbing brushes (only the English scrub floors with a hand brush now). Then put tools under the tap or into a bucket of water to rinse them clean. Wipe them dry with a cloth. You might need a small knife or paint scraper to get mud off.

To preserve the metal, fill a big bucket with a mixture of sand and oil. Use about a quart of engine oil in a large bucket. Then all you have to do is tip each tool into the bucket before hanging it up. For tools like saws or shears that are awkward to dip into the bucket, oil can be applied with a cloth.

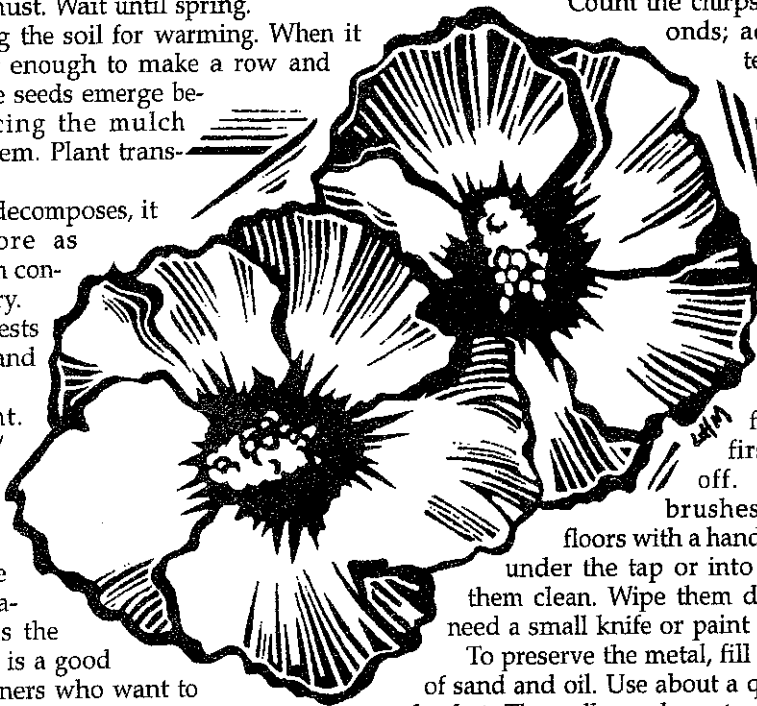
About once a year rub down wooden handles with wire wool or fine sandpaper to smooth out splinters or rough areas. Then treat with a layer of linseed or teak oil. Bladed tools like knives need to be sharpened from time to time to ensure their best performance. The most important thing is to keep your tools in a dry place and hanging in well ordered ranks so that at a glance you can see that everything's there. (*Gardens Illustrated*, April 1999)

Keeping Cut Flowers Fresh

Use a sharp knife to trim stems. Scissors can pinch or bruise tender plants.

Cut garden flowers early in the morning. Bring along a bucket of warm water and a floral preservative. Submerge just-picked stems in water and recut. This will help hydrate the stems, leaves, and even the blossoms.

See Hints, continued on page 6



Book Review

By Julia Loyall



Last year's blistering summer caused some premature deaths in my garden. Things I was delighted with turned to compost fodder in no time, either from the heat directly or from the varmints the heat produced.

When Betty Pagan introduced us to the new American Horticultural Society (AHS) publication, *Heat-Zone Gardening*, at her recent Shepherd's Center session on herbs, I realized help had arrived for Southern gardeners.

Down here, knowing the USDA hardiness zone of a plant is not enough. In our worst summers, some plants just plain die, or become dormant and disappear only to show up when cool weather and rain return and you've forgotten their names. Thus, we need to know a plant's heat tolerance as well as its ability to survive low temperatures. And because scientists forecast even more unpredictable weather ahead, this information will become more important in future summers.

Dr. H. Marc Cathey produced *Heat-Zone Gardening* in cooperation with Linda Bellamy, the well-known journalist and garden writer/consultant. He is a prominent research horticulturist and president emeritus of AHS. He worked for the USDA for 24 years on effects of light, temperature, pollutants, and chemicals on plant growth. He also served as director of the U.S. National Arboretum and participated in organization of the USDA plant hardiness map.

The book and its heat-zone map will help you choose plants that will survive and prosper in our summers and winters. The map's coding system has 12 zones, based on the average number of days above 86 degrees experienced yearly from 1974 to 1995. (Eighty-six degrees is the point where heat damage to plant cells begins.)

In central Arkansas, we are in hardiness zone 7 and heat zone 8. We average 90 to 120 days per year above 86 degrees (30 degrees Centigrade).

That's not all. The authors provide a "Plant Profiles" section of 117 pages containing information on North American native plants, plus easy-care plants from around

Heat-Zone Gardening: How to Choose Plants that Thrive in Your Region's Warmest Weather

By H. Marc Cathey with Linda Bellamy

Time-Life Books, American Horticultural Society, 1998

the world. Listing is by botanical name, with common names indexed. Brief descriptions also give cold- and heat-zone ranges, expected height, type, soil, light and maintenance needs and growing tips. Names of more drought- or heat-tolerant cultivars are listed. Codes assume good gardening practice will be followed.

Suggestions for assessing your garden's landscape follow the heat-zone map explanation and directions for use. You are told to study your garden's landscape and record your hot and cold zones, soil type, patterns of rainfall, sun, shade and wind. Note existing plant materials and structures, potential problems such as hot pockets, steep slopes, soil erosion, roots, wet spots, compacted soil, overgrown trees and shrubbery. Ask yourself whether you need to eliminate high-maintenance items requiring trimming or difficult mowing. Do you want to eliminate lawn?

It's helpful to observe which wildflowers or cultivated plants thrive in meadows and gardens near yours. Find out which plants are invasive. Buy plants, especially natives, from reputable sources rather than collecting from the wild; collecting is usually illegal and environmentally destructive. Nursery folks and fellow gardeners provide helpful tips. Local growers and nurseries carry plants that are especially adapted to your area.

Following sections of the book suggest ways to locate and create microclimates in your garden to ensure summer survival. Effective watering methods and water conservation techniques are described.

This reference is one every gardener should find eminently useful.

This book and the map are in the Master Gardener room at the Roosevelt Road Extension Office.

About AHS:

AHS membership benefits include free and reduced admission to botanical gardens and flower shows throughout North America, with some discounts in plant and gift sales. There's an annual conference, gardener's information service (Internet-accessible), seed exchange, discounts on AHS books and CD-ROMs at members-only prices. The bi-monthly magazine, American Gardening is a keeper.

For membership, send your check for \$25 for one year or \$45 for two to American Horticultural Society, East Boulevard Drive, Alexandria, VA 22308-1300. Or call (800) 777-7931, ext. 10. The heat-zone gardening map, plus a two-page information bulletin, is available to members for \$13.45. Non-member price is \$14.95.

The price of the book, Heat-Zone Gardening, which contains the map, is discounted to \$17.50 for members. Non-member cost is \$24.95.

Along with USDA hardiness zones, look for AHS heat-zone codes coming on plant labels, books and catalogs.

Arkansas Arboretums

— Part III

By Lynne Woods

Garvan Woodland Gardens is located in Hot Springs National Park and was formerly known as the Twentieth Century Gardens. This public garden contains 210 acres of natural woodlands, with four miles of shoreline on Lake Hamilton. The garden was established in 1955 and is affiliated with the University of Arkansas.

Thirty-five acres of the land is used for guided tours, with specialty collections: a camellia trail, a rock garden, a daffodil collection, and the Japanese maple hill. The rose garden, which you can smell before you ever see it, has certain species of roses dating back to the 1300s. There also is a beautiful open pavilion, designed by E. Fay Jones, that is large enough for meetings and workshops.

The garden is only accessible by the Belle of Hot Springs, a restored riverboat, although there are future plans for a public access road. The garden is open by appointment only, daily mid March through early November, closed Sundays and all major holidays. Admission is \$6 for adults, and the boat is \$10. The garden can be quite steep in places, so good shoes and good health is recommended. For reservations, call (501) 623-8101 or (888) 530-6873. ♦

Hints, continued from page 4

Remove all but the uppermost leaves, since foliage deteriorates quickly in water.

Nip dead and tightly closed buds. Both leach nutrients from healthy blooms.

Use a floral preservative in your vase water. You can mix your own by dissolving a capful of bleach and two teaspoons of sugar in a gallon of warm water. The bleach impedes bacterial growth; the sugar provides nutrients for the plant.

Cut stems diagonally before you start arranging, to create a larger area from which the plant can drink. [This also keeps stems from suctioning to the bottom of the container, which prevents uptake of water.]

Keep flowers in a cool place, and recondition the water every two to three days.

Snippets of herbs, which need to be cut back to prevent them from going to seed, are well-suited and fragrant additions to bouquets. (*Country Living Gardens*, June 1999)

Fairy Garden Plants

Tulips are used as fairy cradles.

Monkshood helmetlike flowers are worn by fairy guards and knights.

Lily-of-the-Valley white bells ring when the fairies sing.

Ferns provide a privacy screen for fairies near their beds of moss or thyme.

Johnny-jump-ups are important to fairies.

Thyme, especially mother-of-thyme, is used as a rest-place or soft bed for fairy babies.

Foxglove is used by fairies as hats and gloves.

Campanula is used for drinking cups.

Bleeding heart stores fairy dust.

(*Country Living Gardener*, February 1999) ♦

ReLeaf 2000

During the month of April, Jeff Meyer of American Forests Famous & Historic Trees traveled the country planting apple trees. His activities are part of the American Forests' end-of-century salute to John Chapman, aka Johnny Appleseed, the man American Forest has dubbed "The Tree Planter of the Millennium."

"Trees were important during Johnny Appleseed's time for what they provided people, just as they're important today as filters of air and water," Meyer says. American Forests hope to plant 20 million trees by 2000 as part of its ReLeaf 2000 program, in which they are involving school children, the tree planters of the future.

American Forests is the oldest (1875) nonprofit citizen conservation group. Since 1917, it has cataloged trees that stand at sites where U.S. history occurred or that grow at homes of famous Americans, including pin oaks from Elvis' Graceland. From seeds and cuttings, offspring from these historic trees have been grown since 1988 at American Forests greenhouses in Jacksonville, Fla. Saplings are sold to schools, communities and individuals.

American Forests has more than 75 historic trees to choose from. A sample includes: A tulip poplar planted by George Washington in 1785 at Mount Vernon. An angel live oak which is one of the oldest living things east of the Mississippi. Located in Charleston, S.C., the tree is estimated to be over 1,400 years old. A Walden Woods red maple from Henry David Thoreau's woods near Concord, Mass. The Treaty Oak, one of the most famous trees in America; it's the lone survivor of the 'council oaks' in Austin, Texas. A Frederick Douglass white oak from the Cedar Hills mansion in Washington, D.C.

What's your pleasure? Check the growing zone for each before ordering from American Forests, (800) 320-8733 or www.americanforests.org. Each tree is \$35, plus \$8 shipping. *Information from USA Today, April 23.* ♦

Pulaski County Master Gardeners At Work

With the gala reopening of the First State Capitol on Markham less than three weeks away, Betty Jane Daugherty reports that 35 MGs are poised to extend the restoration onto the grounds. Already, 'New Dawn' roses have been planted along the fence on the north edge (the LaHarpe side). Ed Garetson, who is in charge of the grounds, expects the fountain in the front of the building to be installed the first week in June. After that, Master Gardeners will work their magic on the grounds around the fountain, as well as at the entrance of the building.

The May issue of *Southern Living* recognizes MG Nancy Porter with an article about her garden. For 27 years, she has nurtured her hilltop, removing rocks and replacing them with soil and compost. As her house is a 1730s-style New England saltbox, she researched the first plants to make sure they had grown in the 1730s. Large clumps of peonies produce bowl-sized blooms; these are more than 50 years old and were dug from her mother's yard. Each year the garden changes as new plants are tried. ♦

Processing Herbal Foods

Information from UA Division of Agriculture, Cooperative Extension Service Publication MR402-5M-6-98N by Dr. Pamela L. Brady and Dr. Luke Howard. (This publication has been abbreviated. The complete publication is meant for persons who intend to enter the food industry with a processed botanical product. But anyone who processes herbs for home use will find this abbreviated information on preservation useful.)

Botanicals As Foods

The term "herb" is generally used to mean the leaves of any of a number of plants that grow in temperate climates. They can be found at various times of the year, depending on the herb. Many of these plants are reputed to impart special benefits to the user.

With few exceptions, herbs have not been widely used in the food industry. The 1960s saw a growth in the popularity of herbal teas, and a number of entrepreneurs began business producing them. In the 1990s, the trend continued with rose petals used in sorbet, kudzu blossoms added to jelly and even an attempt to use mistletoe juice. (By the way, mistletoe juice is toxic!)

As the examples above indicate, the use of botanicals as food is not always simple. Considerations must be given for a variety of factors, from the safety of the herb itself to the selection of the appropriate processing procedure.

(A botanical is a medicine or preparation made from a plant. Many botanicals have a history of food use. Visiting a market in China or Hong Kong, one is struck by the array of carefully preserved botanicals. Folk healers worldwide have relied on botanicals throughout history, and instructions for their use are often passed down from generation to generation.)

Specialty Products

In recent years, there has been an increase in interest in specialty products made with herbs. Such products include: herbs in vinegar, herbs in oil, and pesto.

The popularity of these products can be attributed, to a large extent, to increased consumer interest in healthy eating. This has led many people to include more pasta and other low-cholesterol alternatives to meals. At the same time, those who are attempting to follow dietary recommendations to use less fat, salt and sugar are looking for new flavors to add interest to foods.

Herbs In Vinegar

Herb-flavored vinegars have become popular for use on salads and meats. In addition, many companies have put these types of products in fancy bottles which consumers think are pretty sitting on a counter.

Vinegar is considered an acid food. The definition becomes more complicated as herbs, which are low-acid foods, are added to it. The product may still be considered an acid food as long as: (1) only a sprig or two of herb are added to the vinegar, (2) the herb becomes acidified throughout, and (3) the herb does not contribute a change in the acidity of the vinegar. However, as the amount of low-acid food (the plant material) increases, it begins to have an effect on the acidity of the vinegar. At this point,

the product is no longer a "vinegar" but an acidified herb.

This is an important distinction for several reasons: The public health implications of acidifying a low-acid food (acidified herb) are greater than simply packaging an acid food. A mistake in the proper acidification could allow the development of botulism, a deadly disease.

Herbs In Oil

Another popular product category is oils which are flavored with herbs. Many of these products, which may be described as being ethnic in origin, have appeared over the years. Common ones have been garlic and pepper packed in oil. *FDA has found that the toxin which causes botulism can be produced in these products.*

Probably due to the increase in pasta in the diet, pesto, a blend of herbs in oil, is becoming more popular. These products have hazards similar to those described previously for individual herbs in oil and must be processed using the same guidelines. A possible process alternative for pesto is freezing.

From a food safety point of view, it is necessary to make the consumer aware of the hazards of refrigerated and frozen pesto. Botulism is a hazard which may develop in oil-coated low-acid foods. There should be a warning label reminding the user to "Thaw in the refrigerator, keep refrigerated and discard after (five days or some reasonable time)." The concern about product safety increases as the product is held for a long time under fluctuating conditions.

Shelf life also may be a problem due to active enzymes in the herbs which break down the tissues. Blanching in steam or water will destroy the enzymes — but it changes the character of the herbs.

Alternative Pollinators

Honeybees are busy. Growers in the United States rent honeybee colonies from commercial beekeepers more than a million times annually to pollinate cash crops. The cost of renting a honeybee colony — about \$45 per bloom period — has doubled during the past decade.

Parasites and weather are threatening the honey- bee. In parts of the country, nearly all wild honeybees and more than half the commercial colonies have been wiped out. So some USDA bee biologists are seeking alternatives to the honeybee. One example is the blue orchard bee for orchard crops, with suppliers selling blue orchard bee starter kits to home gardeners. Other examples are the leafcutter bee for alfalfa and the hornfaced bee for orchards.

But honeybees still have one big advantage over their competitors — their work is subsidized by the return from honey.



Parsley, continued from page 1

Planting Parsley In Containers

Parsley grows happily in a container alone, with other herbs, or with flowers, as long as it gets enough sun. Use a pot that is 12 inches or deeper. Be sure it has drainage holes. Fill it with moistened soilless potting mix to within two inches of its top. Mix in some granular slow-acting fertilizer or plan to water plants once a month with a dilute general-purpose liquid fertilizer. Water often to prevent container plants from drying out during hot summer days.

Caring For Parsley

Young parsley plants need regular watering – until they become established. Then those that are in soil rich in organic matter and are mulched will need watering only every week or two. Those in poor, unmulched soil or in containers need frequent watering – possibly daily if it is sunny.

Spread two to three inches of some organic material such as chopped leaves, hay or straw on the soil around parsley plants when they are about six inches tall. This mulch helps the soil retain moisture and discourages weeds.

Harvesting And Storing Parsley

Begin harvesting parsley when it produces leaf stems with three segments. Harvest the larger leaves at the outside of the plant first, leaving the new, interior shoots to mature. To encourage bushier parsley plants, pick only the middle leaf segment of each main leaf stem.

Store freshly picked, moistened sprigs in the refrigerator in a plastic bag for two weeks. Freeze chopped leaves in plastic bags, or blended in water or meat or vegetable stock and frozen in an ice cube tray up to six months. Parsley also dries well in a regular or microwave oven, although it loses some flavor. Store dried parsley in an airtight jar for up to a year.

Parsleyworm: Friend Or Foe??

Parsleyworms are large, strikingly colored two-inch caterpillars. Green with yellow-dotted black bands across each segment, they emit an odor and project orange horns when startled. They feed voraciously on parsley foliage, leaving only bare stems.

Before destroying a parsleyworm, be aware that it is the larva of the black swallowtail butterfly. To

preserve both it and your parsley, move it to another member of the parsley family that you can spare, such as carrot, dill, parsnips or the common weeds wild carrot or Queen Anne's lace.

Five Steps To Growing Parsley Seedlings Indoors:

1. Soak seeds overnight prior to planting, to improve germination.

2. Fill flat shallow boxes, peat pots or seed-starting equipment with moistened seed-starter mix or other sterile, soilless medium.

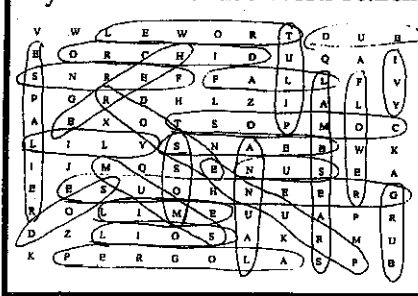
3. Sow seeds about an inch apart in the shallow boxes or two to an individual pot, and cover them with a 1/4-inch layer of the moist medium.

4. Keep them evenly moist and maintain soil temperature of about 70 F. Expect sprouts in 14 to 21 days.

5. Set fluorescent lights two inches above the newly opened leaves, adjusting them to maintain this distance above the top leaves of the seedlings as they grow for four to six weeks. *

This information is a "Timely Tips on the Greening of America" from the National Garden Bureau, March 1999, written by Liz Ball.

Key To Last Month's Word Search



Please Send Us Your News!

If you want people to see your message in the July newsletter, please get your news to us by the date of the June tour. You may bring it to the tour. You may mail it to Beth. You may call Rose Hogan at 374-9429, or Beth Phelps or Mrs. McKinney at 340-6650. Or you may call Cheryl Kennedy at 753-8192, fax her at 753-6305, or e-mail her at 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. Contact her before the end of June to get in the July newsletter. *

Trading Post

By Frances Young

Kathleen Wesson, 663-9146, will have impatiens returning from seed – call Memorial Day Weekend if you want some small plants.

Nita Cross, 225-5105, has monkey grass.

Mary Evans, 664-7863, has physostegia (obedience plant).

Breck Campbell, 666-9195, has strawberry bush.

Lynne Woods, 791-0456, wants two very small, bald cypress.

What flower obtained its name from the Middle English term for "eye of the day"? — from USA Today
The daisy.

Master Minutes Staff — 1999

Chair/Editor	Rose Hogan
Co-Chair/Layout	Cheryl Kennedy
Art	Lisa Hanson Mantle
Photography	Kelly Quinn
Staff	Lois Clifton
	Claude Epperson
	Ann Green
	Annette Hurley
	Julia Loyall
	Linda Murphey
	Gena Norris
	Laurie Pierce
	Phyllis Rye
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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 1998, these volunteers gave more than 7,000 hours of service.

Elisabeth J. Phelps
County Extension Agent — Agriculture



July 1999

Volume 10 Issue 6

Loropetalum Adds Seasonal Interest

By Gena Norris

What is it? Do I want one? Where would I plant it if I did want one? How do I take care of it? These are some of the many questions facing Master Gardeners concerning this relative newcomer to the Arkansas landscape.

One question can easily be answered: Yes, you do want one (or several) of these beautiful shrubs!

Pink Chinese Loropetalum (*Hamamelidaceae*) were collected in China and Japan and introduced into Southeastern United States during the last five to 10 years. In 1997 the shrub was chosen as the Georgia Gold Medal Winner (similar to our own Arkansas Select Plants). The plant was chosen because of consumer appeal, low maintenance, survivability, ease of propagation, and seasonal interest.

Do I buy it for foliage or flowers? This is one question you will not have to worry about – both are outstanding. Loropetalum's flowers are breathtaking. The bright pink color and profusion of blooms present a spring delight, with scattered flowers all summer. With at least 10 cultivars from which to choose, you may find flowers ranging from white to pink to purplish pink. Since this plant is a relative newcomer to Arkansas, plan to find only pink

spectacular. Masses of bright pink blossoms at the ends of both new and old growth is something I look forward to seeing.

A broadleaf evergreen in the witch hazel family, Loropetalum's leaves make it an attractive addition to most landscapes. New spring leaves are small, ranging in color from reddish pink to a dark maroon when they first appear. The leaves turn a deep green with a reddish cast as they mature, and they remain evergreen on the shrub.

Cultural Notes

Loropetalum is easily grown and is nearly insect- and disease-free. It is drought tolerant after established. It may be grown in full sun to full shade. (Shade-grown plants will not produce blooms.) Loropetalum varies in size by cultivar, but most reach a mature size of six to 10 feet with an equal spread. It may be used as a background plant behind low-growing shrubs. It is very tolerant of pruning but looks best when individual long shoots are removed rather than being sheared. Older plants may be trained into small trees by simply removing the lower branches. Prune after spring bloom.

Propagation

This plant needs well-drained, non-alkaline soil. Fertilize in early spring and again in summer to promote good growth on young plants and maintain good evergreen foliage in winter. Chlorosis (lack of iron, indicated by yellowing of leaves, with green veins) may develop in high-pH soil. Once established, these plants are carefree.

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blossoms available for a while. I was only introduced to this plant in late spring at one of our Master Gardeners' meetings and missed the opportunity to see the spring bloom, but from the descriptions I've read, they are

**Two silk worms were in a race.
They ended up in a tie.**

A Million By The Millenium

By Liz Ball for the National Garden Bureau

Hunger is a national problem, but it is predisposed to a solution within the community. It cuts across geographical and cultural lines, affecting senior citizens, infants, school children, unemployed, underemployed and homeless everywhere. Estimates vary, but the possibility of as many as 35 million people worrying every day about where they will get their next meal is not excessive.

The members of the Garden Writers Association of America (GWAA) decided to address the problem of hunger in North America. Alarmed and pervasiveness of this problem by board member Jeff Lowenfels, this 1600 member organization accepted the challenge to gardeners to America's hungry. Reasoned that, "GWAA communicators reach over 70 million gardeners in North America - it doesn't take a rocket scientist to see the impact we could have on the hunger problem."

Vegetable gardens produce an enormous amount of food. Anyone who has ever grown zucchini squash can testify to the abundance. Imagine the amount of food that could be produced if every gardener purposely planted more than he or she needed? If each gardener planted one extra row and donated the harvest to a local food bank, gardeners could make an enormous difference. GWAA imagined that, and the result was a commitment to galvanize gardening readers and viewers to grow and donate food. This campaign would be called "Plant A Row for the Hungry," or PAR for short.

Conceived at the onset as people-based, not institutional or bureaucratic, the success of PAR depends on the good will, time and energy of thousands of gardeners and gardening groups. It began with garden communicators, supported by their editors, radio and TV stations and employers, alerting the public to the hunger problem in their region and explaining how they can help. Many companies and publishers are supporting the effort by routinely putting the Plant A Row logo on their packaging and catalogs to create high visibility for the program. Nurseries and garden centers participate by offering Plant A Row brochures and row markers at checkout counters.

With experience and dedicated leadership, the program has grown. Citywide projects from Milwaukee to San Jose, statewide projects in Missouri and South Carolina, and others are underway. Over the years the Plant A Row effort

has become increasingly successful nationwide. After four years, the donated food can be measured in tons. In 1999 several new sponsors have joined to expand the campaign. The National Garden Bureau has donated funds to continue the program and assisted with an international publicity program.

The Future

A Million for the Millennium is now the goal. A million pounds of fresh vegetables grown in gardens and donated to food pantries to feed the hungry is an attainable goal. Spurred by the understanding that government efforts to restructure welfare is leaving many people without food stamps and that food pantries will be hard pressed to meet the increased need, garden writers are redoubling their efforts to encourage gardeners to Plant A Row for the Hungry.

Want To Help?

To learn more about Plant A Row or GWAA: Visit the Plant A Row page on the GWAA website at www.gwaa.org.

For information, a media kit or brochure call toll-free 1-877-GWAA-PAR or e-mail PAR@GWAA.org.

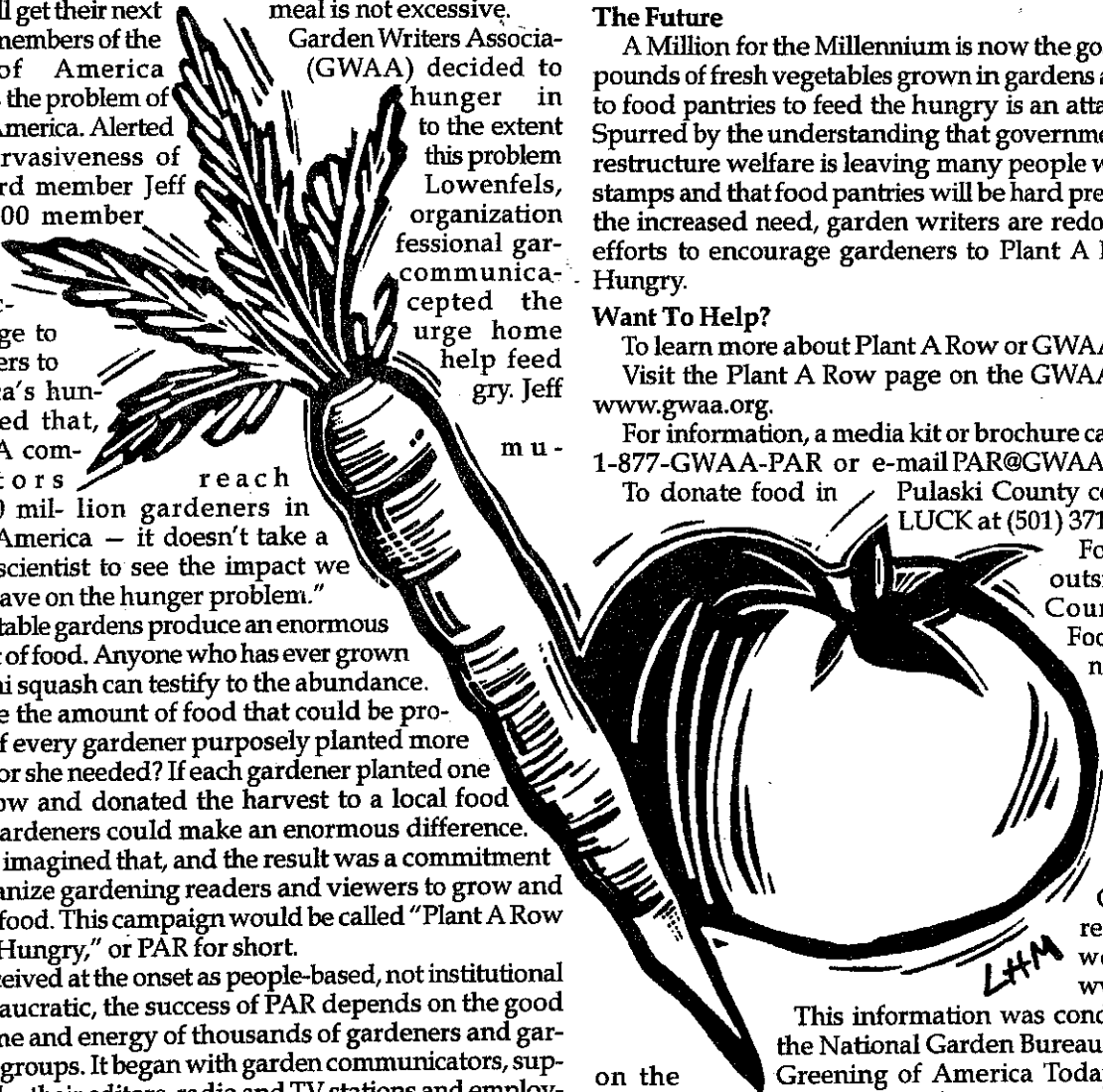
To donate food in Pulaski County contact POTLUCK at (501) 371-0303.

For a location outside Pulaski County, call Foodchain, the national food rescue network at 1-800-845-3008. To learn more about the National Garden Bureau visit the website at www.ngh.org.

This information was condensed from the National Garden Bureau Timely Tips Greening of America Today's Garden, on the April 1999. Besides the website you can reach the Bureau at 1311 Butterfield Road, Suite 310, Downers Grove, IL 60515. Phone (630) 963-0770.

There is so much in nature
which can fill us, day and night,
through plants, animals and flowers,
with the eternal in life.

- C.G. Jung



July Checklist For Gardeners

By Libby Thalheimer

Cutting Class

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

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 as an organic insecticide to control aphids, whiteflies and other destructive insects. Control the aphids to control mold: it grows on the honeydew secreted by the aphids. Use diatomaceous earth or pyrethrum to control slugs, fleas, ticks, cinch bugs, roaches, crickets, and fire ants. Cucurbits will be very susceptible to vine borers now. As a control, some people have had success with placing mothballs around the base of the plants, 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, and evergreens for scale. Keep up the spraying schedule on roses and red-tipped photinias 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 four teaspoons baking soda and one 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 will be a problem as daytime temps soar into the upper 90's and night temperatures do not fall below 75. If blossom-end rot is a problem, remember it is a calcium deficiency and can be controlled by keeping moisture level constant and by spraying three times with Stop Rot. Even moisture also will help prevent catfacing and fruit cracking.

Cover-Up

Apply a three-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.

Splendor In The Grass

Set your mower height at least at 2-1/2" for the summer. Longer grass blades promote deeper roots and are more drought- and stress-tolerant. Longer grass also interferes

with weed seed germination. Aerate the soil: compacted soil is one of the main reasons for 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 application.

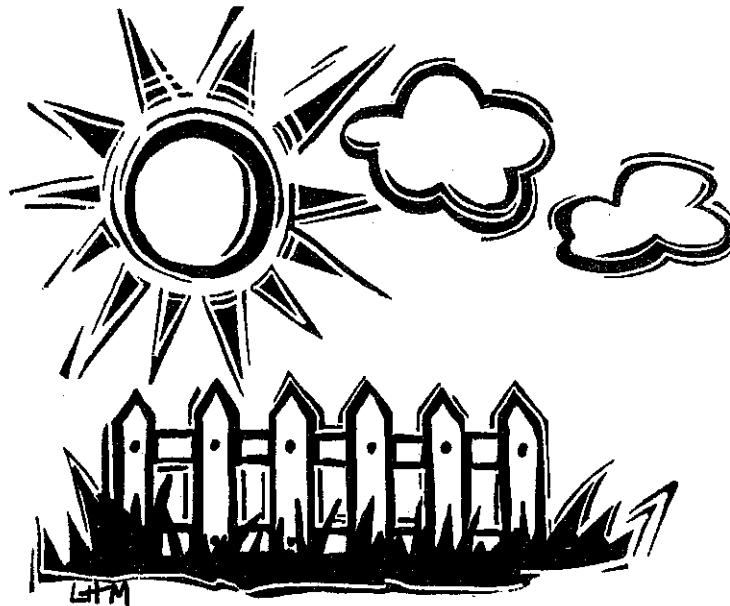
Just Add Water

Water deeply and less frequently to combat drought-stress.

Early morning is the best time to water. Using soaker hoses will conserve water and will avoid getting water on foliage, which can encourage diseases. Water annuals with a salt-free club soda (fresh or stale) to brighten and intensify their colors.

July Picks

Rabbiteye blueberries are still in season. Althea, anise mint, artemesia, aster, balsam, beautyberry, belamcanda, buddleia, butterflyweed, campsis, cannas, chive, cleome, clerodendrum, coneflower, coreopsis, crape myrtle, crinum, dahlias, daisies, echevera, euphorbia, feverfew, garlic, gaura, gladioli, hemerocallis, hibiscus, hosta, 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.



Calendar And Notes

By Laurie Pierce

The *Central Arkansas Iris Society* will hold its annual rhizome and plant sale at 8 a.m. July 10 at the Garden Clubs of Little Rock Center, 1501 Kavanaugh Blvd. 660-4479.

Neck of the Woods Watercolor Workshops will be July 12-16 and August 2-6. Shelia Parsons will teach day and evening classes that will focus on landscapes painted at sites such as Petit Jean Mountain, Lake Conway, and Parsons' Conway studio. (501) 327-1750.

The *Altus Grape Festival* will be July 24-25 at the City Park. Activities will include wine tasting, winery tours, and grape-related games and contests, plus crafts, food and music. Admission is free. (800) 951-2525.

The Ozark Folk Center State Park in Mountain View will conduct its annual *Christmas in July Herbal Workshop* July 25. The \$40 fee includes materials and lunch. Preregistration is required. (870) 269-3851.

The Ozark Folk Center State Park in Mountain View will host its *3rd Annual Organic Herb Garden Workshop* July 30. The class will teach propagation, pest control, and soil composition. The \$40 fee includes materials and lunch.

Preregistration is required (870) 269-3851.

August

The Ozark Folk Center State Park in Mountain View will conduct an *Organic Greenhouse Workshop* August 6. The class will teach lunar propagation, pest control, and how to deal with an enclosed environment. The \$40 fee includes materials and lunch. Preregistration is required. (870) 269-3851.

"Hot Summer Birds" is the theme August 13-15 at Lake Chicot State Park for guided field trips in southeast Arkansas for rare birds and early migrants. (870) 265-5480.

The Ozark Folk Center State Park in Mountain View will conduct its annual *Herb Container Gardening Workshop* August 20. The \$40 fee includes materials and lunch. Preregistration is required. (870) 269-3851.

Parkin Archeological State Park, Parkin, will host a *Fall Foraging Hike* at 10 a.m. and 2 p.m. August 28 in search of edible and medicinal plants and other natural resources. Admission is \$2.25, \$1.25 ages 6-12. (870) 755-2500. *

Remember, No Master Gardener Meetings Until September! Have A Good Summer!



Symbolism Inspires Harmony

By Laura Ann Wilson

The Japanese style of floral arrangement known as "Ikebana" is rooted in their love of nature and the Buddhist philosophy of simplicity.

The first recorded "floral offerings to the gods" were before the coming of Buddhism, but flower decoration has been studied and practiced as an art since the 6th century." An early style known as "Rikka" was perfected in the 15th century. This 15-foot tall elaborate floral arrangement was only found in the homes of court dignitaries whose servants were skilled in the art. Later, a simplified style developed which was popular and widely used in the home alcove as an offering to Buddha. This is the Ikebana we know today.

Ikebana follows seasonal cycles. It is considered against nature to use out-of-season materials. "A spring design should be powerful, yet simple, representing strength of early growth. Summer arrangements should have more material showing the availability of flowers in this season, while autumn foliage and berries indicate the waning year, and the winter arrangements are sparse and

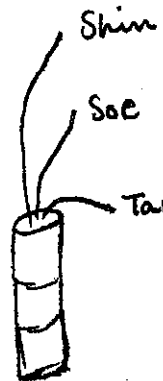
'wintry' in appearance." Ikebana is ideal for gardeners because you use what is on hand, like hedge clippings or plants you have pruned or thinned out.

The harmony of nature is primarily expressed in the placement of the stems. The three main stems are called Shin, Soe, and Tai, or Heaven, Man, and Earth. Shin, or Heaven, is the highest stem. Soe, or Man, is the middle, and Tai, or Earth, is the lowest. There are many other variations of this ancient gardener's art worth exploring.

If you are interested in learning more about Ikebana please visit your local public library. *

Information taken from *Ikebana* by Linda M. Walker, New York, Drake Publishing, 1972.

Editor's Note: The Memphis Botanic Garden is offering classes in Ikebana July 1 and 15, August 5 and 19, and September 2 and 16, 10 a.m.-noon. It's Ohara School (the oldest school of Japanese floral design) with Mitsuko Takeya of the Bamboo Chapter, Ikebana International. Bring a plastic water pitcher, flat container, kenzans, and clippers. Flowers are provided. To guarantee flowers, register three days prior to class. \$15/person. (901) 758-8544.

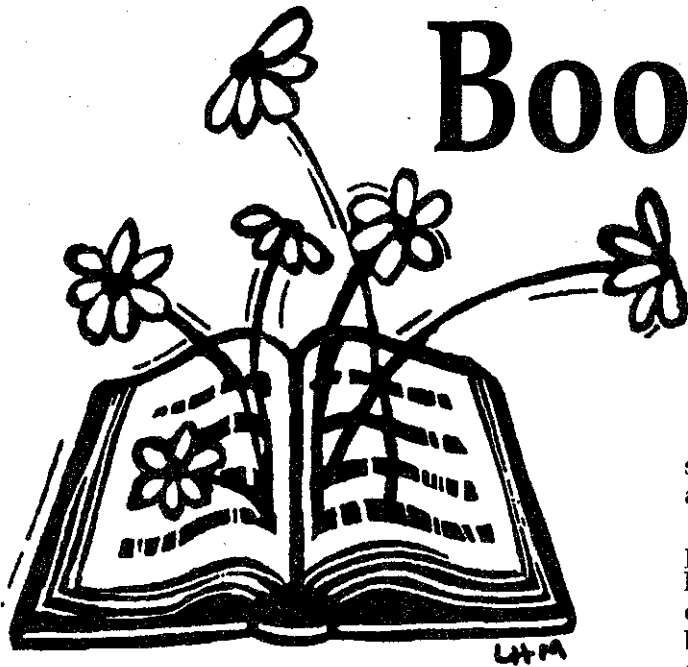


Book Review

By Lois Clifton

Ortho's All About Sprinklers And Drip Systems

Meredith Books, Des-Moines, Iowa, 1998, \$11.95



June, July, and August are the months we haul out the hoses and spend endless hours hand watering our lawn and gardens. For some, you actually enjoy hand watering and are home during the growing season. But think back over the past few years. Are you still enjoying this, or has it become a chore? If it has become a chore, then installing an irrigation system will be well worthwhile: next to the correct type of soil, water is the lifeblood of lawns and gardens.

Ortho's All About Sprinklers and Drip Systems is a book in our library that helps homeowners decide if an irrigation system is what they need, and it provides information, ideas, questions, and answers about all phases of two types of systems.

Most people find irrigation of some form will be useful in at least parts of their yard. So determine your general needs and get started. Do you want a sprinkler system or a micro-irrigation system? Can you do it yourself or should you hire a professional? This book will help you make up your mind.

The purpose of irrigation is to get the right amount of water to all the plants at the right time. To do this you need to analyze the yard's needs, prepare a watering schedule, and adjust the schedule as needed.

Micro-irrigation, or low-pressure irrigation, has long been considered the wave of the future. In fact, the future is here. Irrigation specialists include micro-irrigation in their projects as a matter of course. Some combine with sprinkler irrigation or on its own.

If you are looking for a quick, easy and inexpensive watering system, micro-irrigation is it. It is so simple you can have an entire circuit up and running in one afternoon. A simple soaker hose, easily hidden with mulch and turned on manually, will only cost a few dollars, yet will easily take care of an exceptionally dry bed. Surface installation can also be made automatic.

Sprinkler systems are currently the most popular type of irrigation, especially where ease of care is more important than saving water. Understanding how this sprinkler

system operates will help you make important decisions and avoid expensive mistakes.

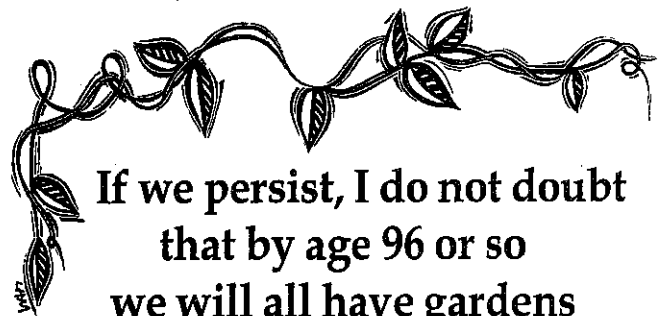
The first thing you need to do is to check out the municipal codes. Some areas have requirements where water hookups are concerned. Know that each circuit will be operated by a separate control valve and it must have backflow prevention. Also, most codes require you to install an antisiphon valve six inches above the highest lawn sprinkler.

Then draw up a plan that will irrigate your landscape and meet your needs. Be sure to avoid dry spots, even if you must overlap some. Once you know your landscape plan and where your sprayers are to be installed, you need to divide the plan into proper circuits of zones. Even if your lot plan allows you to run all sprinklers at once, you probably will not want to.

If you have any doubts, consult a professional. It is better to uncover a mistake when planning than to discover a major flaw after the system is installed. Complete your plans before you begin your irrigation installation.

Now, you are ready to get organized. Prepare a parts list, stake out the yard, and gather your tools and materials. Give yourself plenty of time. It is better to work slowly and carefully than to rush and make mistakes.

Even if you decide to have your system done by a professional, it will be good to read this book. It will help you know more about what you want to do. Whichever way you plan — with a professional or do-it-yourself, you need to search out as much information as you can before you start. *Ortho's All About Sprinkler Hints and Drip Systems* is in the MG library and is a good place to start. ✧



If we persist, I do not doubt
that by age 96 or so
we will all have gardens
we are pleased with, more or less.

— Henry Mitchell

Hints And Tips From The Current Literature

Watermelon Season

To me, July is watermelon month. As a child I always was taken to the ice plant and allowed to go in and pick out a melon on July 4.

How do you tell if the melon is ripe? There are very few external changes in size or color to reveal the melon's ripeness. The little pigtail curl at the point of attachment turns brown and dries up. This is not foolproof because, in some varieties, this occurs a week before the melon is actually ripe. The ground spot (where the melon touches the ground) turns a light straw or yellow color (instead of white). The melon's surface takes on a rough, slightly ridged feeling. The fruit produces a dull, muffled thudding sound when thumped, rather than a sharp or metallic one.

To harvest melons, never pull a melon free from its vine. Always cut it off, leaving a short stem. Be careful not to damage leaves or stems while walking among the melons [more leaves = more sugar in the melon].

Check watermelons for ripeness in the morning before they get warm.

— *Mother Earth News* July 1999

Deadheading

The best way to ensure lasting bloom and maintain tidy plants is to trim off shriveled, faded flowers, a practice known as "deadheading."

Use hand pruners or a pair of sharp scissors to deadhead flowers that feature tougher, almost woody stems. The key is to cut off the spent flowers a quarter-inch above the next bud. Flowers to snip include phlox, peony, aster, coneflower, coreopsis, hosta, zinnia and rudbeckia. Cut off the faded spikes of delphinium, foxglove, veronica, and salvia to encourage a second flush of blooms.

Breaking off the flower where the stem meets the stalk is the only way to successfully deadhead long-stem flowers that grow in a succession of blooms on a single stalk. Pull down gently on the spent flower until it cleanly snaps off. Breaking off faded daylilies will add to the plants' appearance if not the overall flower productivity. Other flowers to break off include iris, gladiola, and hollyhock.

You don't need scissors to deadhead more herbaceous flowers. Just use your thumb and forefinger to pinch off old blooms, especially on compact plants that feature many flowers. Pinch off faded flowers about a quarter-inch above new buds. Pinch chrysanthemum, impatiens, marigold, pansy, petunia, viola, dianthus, poppy, cosmos, and columbine.

— *Better Homes and Gardens Special Interest Publication Garden Ideas and Outdoor Living*, Summer 1999

Dividing Perennials

Many perennials grow fuller over time, especially when they are fed and nurtured according to their specific needs. While it is true that a few seem to go on for decades and longer without much effort on the gardener's part, many die out if left on their own for more than a few years.

As a rule of thumb, figure that most of the plants that return each spring need some sort of division or thinning after three to five years.

Dividing can be accomplished in several ways. Sometimes it is simply a matter of digging up sections with as much soil as possible and replanting them as separate plants. Other times, you must dig up the whole plant, discard the original center, and set out the newer satellites on their own.

Here are some guidelines for popular perennials.

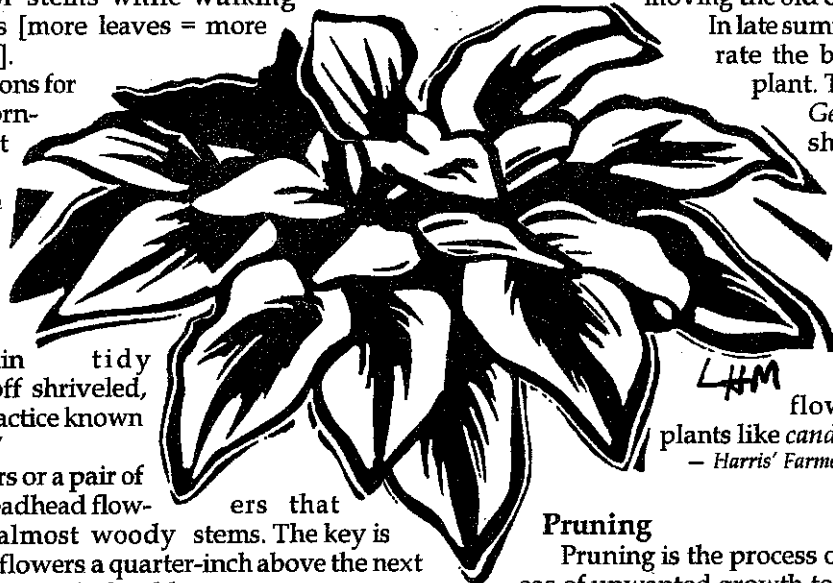
Chrysanthemums should be divided every spring by removing the old center sections.

In late summer, dig up *lilies* and separate the bulblets from the mother plant. Then replant them.

German iris and *poppies* also should be divided in late summer after they have finished blooming. September is the optimum time to divide *Siberian* and *Japanese iris*.

In the early summer, after the first perennials and bulbs have finished flowering, you can divide plants like *candytuft* and *spurge*.

— *Harris' Farmer's Almanac Presents Perennials* Volume 1 Number 1 1999



Pruning

Pruning is the process of diverting food from areas of unwanted growth to those areas where an increase in growth is desired. After leaves are cut from a plant, food is redirected to the newest growth or tips of the plant through the production of a food attraction hormone called auxin. When the tips are pinched back, food is released to the ends, to new leaves, and to the older parts of the plant. Therefore pinching side branches causes growth of the main trunk; pruning the center results in growth at the perimeter.

Whether evergreen or deciduous, all plants store food for emergencies. Food not lost in fruit and seed production and leaf fall is stored in the trunk, branches, and roots. Unlike evergreens, deciduous plants have a definite period of food storage occurring in the plant's dormant stage that determines when to prune.

In deciduous shrubs, old branches should be cut annually. To determine the number of old ones to eliminate, count the number of new branches. As a general rule, the number of old stems pruned should equal the number of

See Hints, continued on page 8

Control Those Pesky Bagworms

By Bill F. Jones, Cooperative Extension Entomologist

The bagworm is native to the United States and is found throughout Arkansas. Bagworms are pests that often attract attention because of their unusual habits and appearance. They can cause severe damage to many species of trees and shrubs. They are rarely a serious problem on deciduous trees, except as a source of infestations that may move to evergreens. By knowing more about bagworms and being on the alert for them, you can avoid severe damage.

Host Plants And Damage

In urban areas, bagworms show a preference for ever-trees and shrubs. Juniper, arbovitae, pine and spruce may be killed if bagworms completely defoliate them. Less severe attacks will retard growth.

The bagworms will feed on shade, orchard, and forest trees of nearly every kind, as well as many ornamental shrubs and perennial plants. Since deciduous plants grow new leaves, damage to them is usually not serious.

Damage is caused by the larvae (caterpillars) which are inside the bags. The larvae eat the needles or leaves, and a heavy infestation can completely strip a plant of its foliage. Complete defoliation can result in the death of the plant.

Description

Bagworms are easily identified by the spindle-shaped bags of silk covered with bits of needles or leaves that they construct around themselves. The bag gives the caterpillar camouflage and protection from birds and other enemies.

The caterpillar is dark brown with a yellow head and yellowish-black spots on the body. Adult females are wingless and lack functional legs, eyes, and antennae. They are almost maggot-like and have a yellowish color. Adult males are sooty black and densely hairy. The wings are nearly clear and have a span of one inch.

Life History And Habits

Bagworm larvae hatch from overwintering eggs during May. The young larva spins a silken case that is carried about as the larva feeds. As the larva grows, it enlarges the bag and continues to add bits of foliage to the outside of

the bag. When resting, the bag is attached to a twig with silk.

Pupation occurs in late summer. In 7-10 days the adult emerges. Males are free-flying and leave the bag. They search out bags containing females, enter the bag, and mate. After mating, the female lays 500-1,000 eggs in the bag, drops to the ground and dies. As mentioned previously, the eggs overwinter in the bags. There is only one generation of the insect each year.

Control

A very effective control is picking the bags off the host in the winter or early spring.

Since they contain many eggs, it is quite easy to prevent problems in the coming year. These bags should be burned, to destroy the eggs.

Chemical control is most effective in spring and early summer before the bagworms become half-grown or larger. Large "worms" are very hard to kill.

Thorough coverage of infested plants with insecticide is necessary for effective control.

Information on insecticides that are labeled for bagworm control may be obtained from your local county extension agent. The University of Arkansas Cooperative Extension Service Publication on bagworms is FSA7025-3M-7-93R-S397.



worms show a green

with they construct around themselves. The bag camouflage and from birds and other

A rosebush is a living process and, as a student of that process, I can learn to prune, to nurture and cooperate with it in ways that allow it best to "happen," to maximize the life force in it, even in the presence of disease.



— Rachel Naomi Remen, MD

Arkansas Arboretums Part IV

By Lynne Woods

I think I've saved the best for last. The Eureka Springs Garden, covering 33 acres, has become one of the finest gardens in the South. The garden opened in June 1993 and is privately owned and operated.

There is a barrier-free boardwalk that gradually ascends the hillside, leading to close-up views of the mixed hardwood, cedar, and pine forest and a variety of annual plants and native wildflowers. You should allow an hour to an hour and a half to walk around the approximate one-mile path. There is so much to see you'll want to take your time.

As with most formal gardens, this one is divided into "rooms," each with a theme. The land has historical significance as well. The Cherokee Indians passed this way in the late 1830s while traveling on the infamous Trail of Tears.

The Blue Spring/Lagoon is the centerpiece of the garden. The Spring has a depth of 510 feet but the actual bottom has never been reached. The Spring served as the site of two 19th century mills which ground corn and wheat.

The garden is open seven days a week, 9 a.m. to 6 p.m., with an admission fee of \$6 plus taxes. It is located about five miles outside of Eureka Springs on Highway 62 West (past the Thorncrown chapel).

You won't want to miss this one. *

Psst! Pass It On!

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

For the August issue, please provide your information to us by July 15. You may mail it to Beth. You may call Rose Hogan at 374-9429, or Beth Phelps or Mrs. McKinney at 340-6650. Or you may call Cheryl Kennedy at 753-8192, fax her at 753-6305, or e-mail her at inthegarden@aristotle.net.

If you have late-breaking news unavailable by the deadline, Beth may be able to add it to her letter that is mailed with the newsletter. Contact her before the end of July for the August newsletter.

What Works?

This is a catch-up column to share the gardening tips, short cuts, successes or failures that you have continued to submit at the monthly meetings.

Gardener's Hands

Sally's Beauty Supply carries white nail pencils that will get the little bits of compost out from under your nails as you rush out the door.

Save The Back

Martha Jones shares a new garden tool find, the CLAW, which allows you to stand up when breaking up beds — easy on the back.

Melon Stand

Julia Dame called in this tip. Use Styrofoam wreath rings from the hobby store in the melon patch. Place them on the ground and position the cantaloupes and watermelons on top so the melons won't rot. *



Hints, continued from page 6

number of new shoots. For plants that sprout new shoots from the ground, old branches should be cut to the ground.

— *Country Accents Farmer's Almanac Gardening Product Guide 1999*

Birthflowers

You know what your birthstone is, but did you know there's a special flower to mark the month of your birth? Linton Wright McKnight has written *Birthflowers of the Landscape* that has an abundance of big, colorful photographs of flowers, shrubs, and bulbs. He examines each of the 12 birthflowers, along with the qualities associated with each one — presumably the same characteristics found in individuals born in that month.

January: Narcissus; February: Forsythia; March: Azalea; April: Iris; May: Rose; June: Hydrangea; July: Crape Myrtle; August: Phlox; September: Canna; October: Daylily; November: Chrysanthemum; December: Camellia. *

— Reviewed in *Better Homes & Gardens Special Interest Publications Flower Gardening, Summer 1999*

Pulaski County Master Gardeners In The News

The June 6 *Arkansas Times* included a supplement which highlighted Master Gardeners Rita Hopkins Johnson, Nancy and Duncan Porter, and Jane Gulley, as well as The Old Mill, a Master Gardeners' project.

The "Arkansas Democrat-Gazette" featured Janet Carson on June 13 as the High-Profile personality. Janet talked about her love of plants and about the Master Gardener program in Arkansas.

The Contemplation Garden in MacArthur Park provided the opportunity for an enticing feature photo for the picnicking article in the June 25 *Weekend* magazine published by the "Arkansas Democrat-Gazette." *

**Never go to a doctor
whose office plants
have died.**

— Erna Bombeck

Master Minutes Staff — 1999

Chair/Editor	Rose Hogan
Co-Chair/Layout	Cheryl Kennedy
Art	Lisa Hanson Mantie
Photography	Kelly Quinn
Staff	Lois Clifton
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	Phyllis Rye
	Sarah Smith
	Claudia Stallings
	Libby Thalheimer
	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 1998, these volunteers gave more than 7,000 hours of service.

Elisabeth J. Phelps
County Extension Agent — Agriculture



August 1999

Volume 10 Issue 7

Delicious Figs Are Easy To Grow

By Rose Hogan

I realized this week how I dread summer and yet look forward to it. It's the heat I dread, and it's the fresh fruits and vegetables I enjoy. Here it is the middle of July, and my neighbor's grove is loaded with figs that are beginning to ripen. I remember how, last year, another neighbor and I, with the help of her husband on a ladder, picked five gallons at one time, and I also think about how hardy fig plants are, and how little I know about them.

History

Figs have been cultivated in the Eastern Mediterranean and in Western Asia for thousands of years. The Spanish brought the fig to the United States, and the Franciscan missionaries brought them into California when they established a mission at San Diego in 1769.

Many of the finest varieties have been imported as cuttings and plants. Some need pollination. The tiny pollinating insect, *Blastophaga psenes*, was imported, and it was a panacea for the California fig industry. But it also spread diseases and fungi, so the USDA bred a substitute fig that did not need pollinating.

Fresh figs ship poorly, so most of the crop is dried for export to areas that cannot grow figs. Some are made into paste for use in making Fig Newtons and other pastries. There are no significant commercial orchards in the Southern states.

Home gardeners grow figs around the world, consuming the fruit fresh, stewed, preserved or making it into jam. Here is one of our favorite recipes:

Fig Conserve Recipe

- 2 pounds ripe figs, plus equal amount of sugar
- 1 cup crushed pineapple, well drained
- 2 medium lemons cut into small pieces
- 1/2 teaspoon salt
- 1 cup chopped pecans (optional)

Chop figs in small pieces after washing thoroughly. Mix with equal amount of sugar and lemons, pineapple and salt. Put in large pan or kettle and slowly bring to boiling point, simmering gently until mixture thickens but is just a tiny bit runny. Stir often to keep from sticking. Stir in nuts and put into hot sterilized jars and seal.

Botany

The common fig is a member of the genus *Ficus*, a

member of the *mulberry* family; the genus is large and distributed around the world.

The fruit of all *ficus* species is the syconium, an enlarged, fleshy and hollow peduncle bearing closely massed tiny flowers on its inner wall. The true fruits are tiny drupelets that develop from these flowers. When we eat a fig we are eating the container, which holds the true fruit.

Fig Varieties

There is a total of 720 varieties, which are divided into green and yellow figs and dark figs. The most common fig locally, 'Brown Turkey', is a dark fig. It is a small to medium light brown to violet fruit with strawberry pulp. It is cold hardy but fruits on new growth if winter killed.

Growing Figs

Figs are easy to grow in warm climates, but produce their best fruit in climates with hot, dry summers and cool wet winters. Although they are a subtropical species, mature trees are fully cold hardy to 15 to 20° F. Planted in the ground, fig plants can quickly reach 15 to 30 feet in height, and the canopy can spread equally wide. The root system is typically very shallow without a taproot and can easily spread to three times the diameter of the canopy. Ideally, fig plants should have a well-drained loam with plenty of organic matter, but they will tolerate average to poor soil. Once they are established, they are somewhat drought tolerant. Figs tolerate soils with pH ranging from 5.5 to 8.0, but growers with acidic soils should apply lime to bring the pH up to the figs preferred pH of 6.0 to 6.5.

Fig plants need plenty of sun (8+ hours at least) and heat, which helps ripen the fruit. Figs respond very well to heavy applications of manure and compost. Be sure not to apply fertilizers too late in to growing season since that would spur new growth that cannot harden off before

See Figs, continued on p. 8

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Calendar And Notes

By Laurie Pierce

August

The Arkansas Extended Learning Center is offering a *Landscape Construction Workshop* taught by John Beneke for four sessions on Mondays August 2-23. Cost is \$79. For more information, call 666-0759.

The Ozark Folk Center State Park in Mountain View will conduct an *Organic Greenhouse Workshop* August 6. The class will teach lunar propagation, pest control and how to deal with an enclosed environment. The \$40 fee includes materials and lunch. Preregistration is required. (870) 269-3851.

The Sierra Club will meet at 7 p.m. Aug. 10 at Second Presbyterian Church, 600 Pleasant Valley Drive. 224-2582.

"Hot Summer Birds" is the theme August 13-15 at Lake Chicot State Park for guided field trips in southeast Arkansas for rare birds and migrants. (870) 265-5480.

The Arkansas Orchid Society will meet at 1:30 p.m. August 15 at Christ Episcopal Church, 509 Scott St. 375-2342.

The Arkansas Extended Learning Center is offering a *Holiday Decorations Workshop* by J. Michael Jackson starting Monday August 16 at 6-7:30 p.m and Saturdays August 21 and 28 from 9 a.m. to 4 p.m. Cost is \$79. For more information call 666-0759.

The Ozark Folk Center State Park in Mountain View will conduct its annual *Herb Container Gardening Workshop* August 20. The \$40 fee includes materials and lunch. Preregistration is required. (870) 269-3851.

Parkin Archeological State Park, will host a *Fall Foraging Hike* at 10 August 28 in search of edible and plants and other natural resources. \$2.25, \$1.25 ages 6-12. (870) 755-

The Arkansas Extended Learning Center is offering a *Bulb Planting Seminar* by Mary Evans on Saturday August 28 9-11 a.m. at the Cammack Hall. Cost is \$15. For more information call 666-

September

The Missouri Botanical Garden in St. Louis will host its *Annual Japanese Festival* September 4-6. (800) 9400.

The Arkansas Horticultural Society will meet at 2 p.m. September 12 at Episcopal Church, 509 Street. 375-2342.

The Arkansas Hosta Society will meet at 11 a.m. September 16 at the Garden Clubs Center of Little Rock, 1501 Kavanaugh Blvd. 663-7515.

The Arkansas Unit of the Herb Society of America will meet at 11 a.m. September 16 at the Garden Clubs Center of Little Rock, 1501 Kavanaugh Blvd. 663-7515.

The Ozark Folk Center State Park, Mountain View, will conduct its annual *Sumptuous Herbal Fall Reception and Feast* at 7 p.m. September 30. The cost is \$20, and registration is required by September 16. (870) 269-3851.

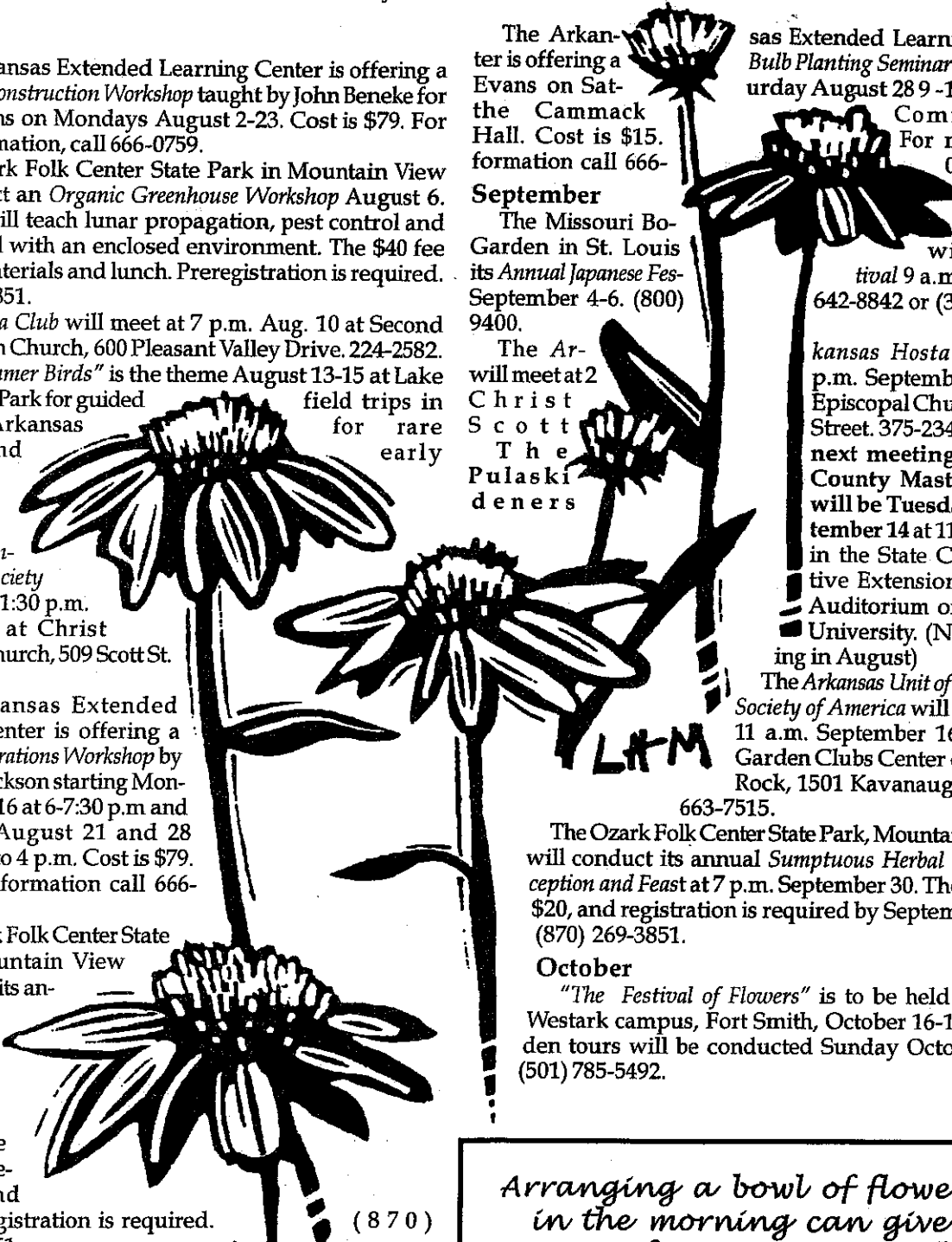
The Ozark Folk Center State Park, Mountain View, will conduct its annual *Sumptuous Herbal Fall Reception and Feast* at 7 p.m. September 30. The cost is \$20, and registration is required by September 16. (870) 269-3851.

October

"The Festival of Flowers" is to be held on the Westark campus, Fort Smith, October 16-17. Garden tours will be conducted Sunday October 17. (501) 785-5492.

Arranging a bowl of flowers in the morning can give a sense of quiet in a crowded day — like writing a poem, or saying a prayer.

— Anne Morrow Lindbergh



(870)

Parkin, a.m. and 2 p.m. medicinal Admission is 2500.

August Checklist For Gardeners

By Libby Thalheimer

Cutting Class

Cut back leggy *annuals* and fertilize.

If your *iris* or *daylilies* didn't bloom well the past few years, divide them now through 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 new divisions about 12 to 18 inches apart.

Cut back and divide *mint*, *sweet marjoram*, and *oregano* growing in the garden. Pot these herbs, and place in a sunny window for a winter supply.

Avoid pruning *azaleas*, *forsythia* and other *spring-flowering shrubs* now because they are forming flower buds for next spring's displays. 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.

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.

Disbud *chrysanthemums* and *dahlias* for specimen blooms. Shear *browallia*, *toenia*, and *verbena* for rebloom.

Hydrate!!

If it 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 plantings at least three inches helps retain moisture, as well as keeping down weeds. When using any kind of fungicide, herbicide or insecticide, 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.

Dig In

You can plant a second crop of *cosmos*, *marigolds*, *melampodium*, *saravitalia*, *zinnias*, and *zinnia linearis*. Plant fall blooming bulbs now — *crocus*, *colchicums*, and *spider lilies*. For the fall vegetable garden, plant *broccoli plants*, *cabbage plants*, and *cauliflower plants*.

Fertile Ground

Give *spring-flowering ornamentals* and *warm-season grasses* a light application of fertilizer.

Fertilize *roses* with a granular rose food or liquid formulations as recommended on the label. Mulch to insulate rose roots.

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 each plant.

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*.

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*. Follow label directions! Since *poison ivy* and *honeysuckle* are *perennials*, applying Round-up now can keep them from storing up nutrients for winter and the chance of their surviving until spring decreases.

You may begin to notice the webs of *webworms* on the limbs of *pecan*, *cherry*, *persimmon* and *sycamore* trees. Recommended treatment is

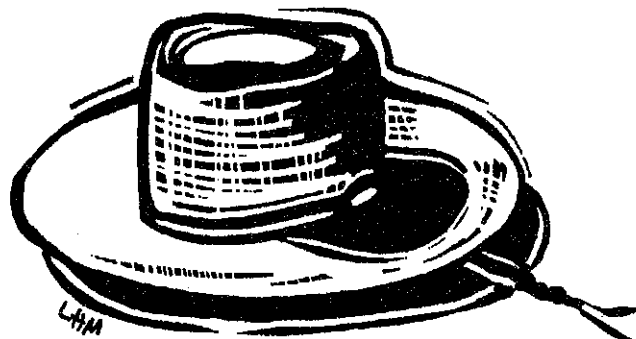
to remove and destroy webs and apply *Bacillus thuringiensis* (BT) spray to the worm-eaten leaves.

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 Benlate to prevent infection. Be sure to follow label directions exactly.

August Blooms

Ageratum, *althea*, *anise mint*, *asclepias*, *asters*, *balsam*, *bellamcanda*, *browallia*, *buddleia*, *callicarpi*, *campsis*, *cannas*, *celosia*, *clematis*, *cleome*, *clerodendron*, *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*, *nicotiana*, *oxalis*, *pennisetums*, *phlox*, *physostegia*, *portulaca*, *roses*, *rosemary*, *rudbeckia*, *salvias*, *snow-on-the-mountain*, *spirea*, *tamarisk*, *tansy*, *thyme*, *toenia*, *turtleheads*, *veronicas*, *vinca*, *pink zephyranthes lilies*, and *zinnias*. *



Hints And Tips From The Current Literature

How do you get blue hydrangeas? Not all hydrangeas have the ability to turn blue. White varieties will always be white; some pink varieties will always be pink. But a handful possess the ability to change color. Look for those with "blue" in the cultivar name.

To get blue hydrangeas, first check the plant information to make sure the hydrangea you choose has the capability to turn blue. Then, if your soil isn't already acidic, work in aluminum sulfate or a fertilizer to acidify the soil. It's also useful to add sphagnum moss, which not only improves the soil's ability to hold water (hydrangeas like lots of water) but also slightly acidifies it.

— *Better Homes & Gardens Special Interest Publication Garden Shed, Summer 1999*

To keep container grown perennials outside through the winter, you must first choose a container which can be left outdoors during the cold months — not terracotta or ceramic because they will crack in very cold weather. So pick a container of

wood, plastic, concrete, reconstituted stone, or fiberglass.

Second, the rule of thumb for root hardiness is to choose plants that are two zones harder than the zone you live in. Locate the pot on a sheltered patio or the south side of the house.

— *Taunton's Fine Gardening, August 1999*

Are you in the market for a good drought-tolerant annual or perennial? Usually, if a plant has one or more of the following characteristics, it can go without water longer than most: silver-gray foliage, hairy leaves or stems, waxy leaves, thick succulent-type leaves, and thorns or stickers.

— *Better Homes & Gardens Special Interest Publication Garden Shed, Summer 1999*

With the decline in the honeybee population, bumblebees can be nurtured by planting the flowers they feed upon. In order to provide a steady food source, provide blooms during the bees' active period, March to October.

Bees are drawn to flowers by sight and smell. They are fond of flowers on spikes and also collect pollen from daisy-type flowers. In addition to flower shapes, masses of brightly colored blooms attract bees. Also, bumblebee-attracting flowers must be stable enough to support the weight of the bee.

A table of plants and their bloom time and hardiness zone is provided so that you can have blooms at least March through October.

— *Taunton's Fine Gardening, August 1999*

A plant stake should be unobtrusive. Half-inch bamboo, straight limbs cut from trees, commercially available green-painted metal poles, and metal stakes bent in spirals are some of the options. The height of the stake should be matched to the eventual height of the plant.

When an established perennial plant first emerges for the season and will need staking, don't delay. Drive the stake into the ground a few inches away from the crown,

to avoid root damage. With annual plants, put the stake into the soil before you set out your plants. Most plants need to be tied to their stakes with strips of thick soft material. Twining vines do not need to be tied. Details on staking tomatoes are given.

— *Country Living Gardener, August 1999*

In late summer, as air and soil temperatures rise, plants can become heat-stressed right down to their roots. One of the best things you can do for them is to spread a blanket of organic mulch over their root zones. A layer of mulch not only cools plant roots but conserves soil moisture. It also helps to control weeds.

The most commonly available mulches are bark, compost, leaf mold, peat moss, and other materials such as chipper debris, aged sawdust, cotton gin waste and rice hulls, and straw and hay. For denser materials like peat moss or sawdust, a 1- to 2-inch layer is sufficient. Mulches made of larger or looser pieces like bark should be spread 3 to 4 inches deep. Very loose materials such as leaf mold can be spread as much as 6 inches deep.

— *Sunset, August 1999*

*I guess a good gardener
always starts as a good weeder.*

— *Amos Pettengill*

Xeriscape: Easier, Cheaper And Beautiful

By Julia Loyall

Xeriscape is a coined word derived from the Greek "xeros", for "dry" and from "landscape". It was created by a problem-solving group from the Denver Water Department, Colorado State University and the Associated Landscape Contractors of Colorado.

When the severe drought of 1977 made water conservation in landscaping vital to prevent future serious water shortages, the public consciousness had to be raised regarding the enormity of residential water waste, and methods of reducing that waste had to be developed and promulgated.

The Denver task force produced seven xeriscape landscaping principles basic to good water conservation:

- Planning and design
- Soil analysis and improvements
- Practical turf areas
- Appropriate plant selection
- Efficient irrigation
- Mulching
- Appropriate maintenance.

The term xeriscape was trademarked by the Denver Water Department and given in 1996 with its logo to the National Xeriscape Council Inc. (NXCI), which is a clearinghouse for information about xeriscape landscaping. This nonprofit

group supports development of xeriscape demonstration gardens all over the United States.

On a recent visit to Colorado Springs for a new grandbaby inspection, I realized that landscaping there is beautiful and very different from ours. The xeriscape principles were definitely being implemented throughout the city, and there were dry landscape workshops advertised in the daily newspapers that would have been fun.

Since water shortages may be in our future, perhaps planning and design for xeriscape have applications for Central Arkansas gardeners.

Planning And Design

How much lawn do you really need? Do you need play areas, privacy screens, and space for entertaining? Do you

want to eliminate watering or reduce it? What types of plants do you want to use? Are your hardscape features being watered wastefully? How much maintenance do you want to do? Are there hardscape features like patios or walks or walls you would like to add?

Use diagrams and maps to record what's in your current landscape and think what you'd like to add and/or change.

How much do you want to spend?

Consider the long-term positive effects of reduced water bills and less time spent on maintenance. Good landscaping can improve the resale value of your property 15 percent. And remember small and inexpensive projects can be very successful, if well done.

Measure, record and map your house, boundaries and the physical structures of your landscape. Diagram usual traffic patterns, utility lines and easements. Use a yardstick, string level and string to measure vertical changes in your landscape from the level of the first floor or patio. Divide the vertical distance by the horizontal distance to calculate percent of grade between important points of your landscape.

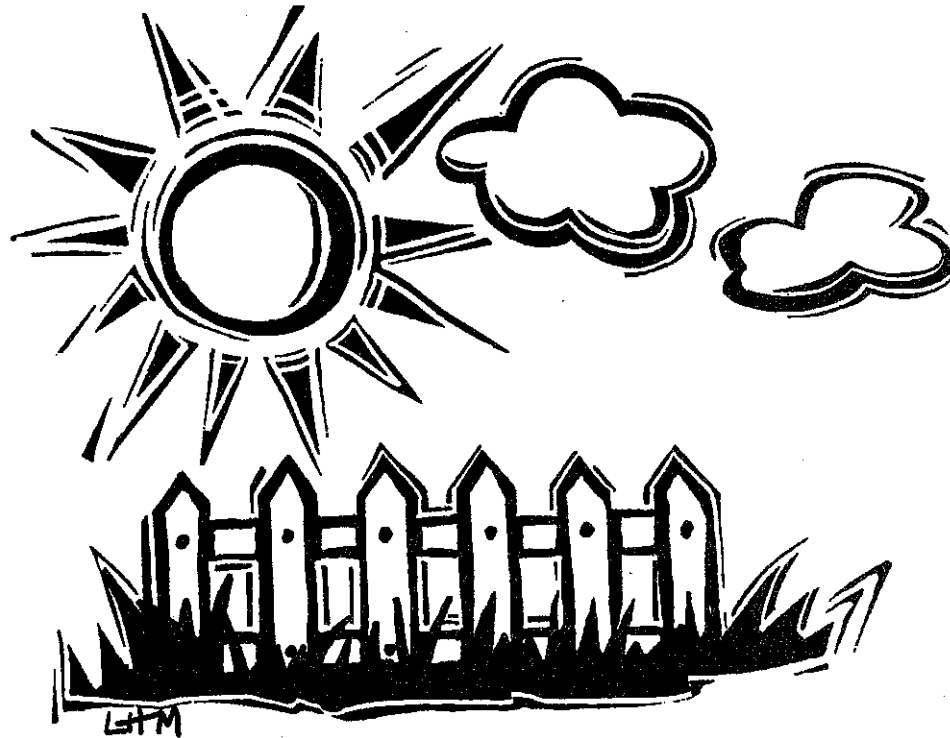
You will locate plants needing more moisture in the low spots and shaded areas, and those needing less moisture in the higher sunny spots.

"Zoning", in xeriscaping, means grouping plants in your landscape by their moisture needs. Usually your low-moisture zones will be at a distance, while higher moisture zones are closer to a patio or entrance for convenience.

Soil Analysis And Improvements

Have soil from various areas of your garden analyzed. A Cooperative Extension analysis will give pH readings and levels of various plants' nutrients with suggestions

See *Xeriscaping*, next page



Xeriscaping, continued from page 5

for soil improvements. Follow these local suggestions rather than those of out-of-state sources. Because your soil will probably tend to return to its basal readings over time, it is wise to choose your plant material to fit the original pH readings. Continue to have soil samples tested from year to year, and be vigilant in use of corrections suggested.

Liberal use of compost increases water-holding capacity of soils. Be aware, however, that some native plants, like people, suffer from too rich a diet.

Cross-linked polyacrylamide crystals expand and hold water in the soil. They help establish stands of grass and reduce transplant shock of trees and shrubs by providing a ready source of water. Though most useful in drought periods or dry areas of the country where water needs are critical, polymers might also be helpful in your landscape.

Practical Turf Areas

The most efficient water conservation would get rid of all lawn areas and would instead use hardscape, wildflowers and/or groundcovers exclusively. Decide how much lawn your family will really need. Use your Cooperative Extension literature for planting and irrigation suggestions for your particular grass and soil type. Your site-planning map will also help you make decisions.

The most desirable xeriscape grass, buffalo grass, is not recommended for sandy soil or shade. It also turns brown and goes dormant in cool weather and remains dormant until late spring. Still, it is very drought-tolerant, and there are solutions to these problems.

When a Colorado gardener's lawn greened up much later than her neighbors' bluegrass, she planted 2,000 little species bulbs like dainty *Iris reticulata* in her Buffalo grass lawn that fall. Her early spring-flowering lawn is lovely, and the dying foliage of the little bulbs is quickly covered by the greening buffalo grass in the late spring. If all your sunny-lawn neighbors use zoysia, buffalo grass or bermuda, your lawn will match theirs most of the time. And xeriscapers say buffalo grass is the water conservation grass of the future.

A point to consider where water is expensive: sod, where available, might be cheaper than seed to start any lawn grass, when you add in the price of the watering needed to properly start your seed.

Appropriate Plant Selection

In July and August, when Little Rock goes into its Sahara Desert Phase, take note of the plants in your garden which are not wilting — appearance may suffer, but they flourish in the dry heat. These plants could be part of your xeriscape garden.

Two schools of thought exist on choice of plants in xeriscape. Some use native plants only, and some combine native and non-native plants whose cultural needs are similar. Native plants encourage native birds and butterflies, but there are also non-natives that are beautiful, conserve water, and add much interest to a landscape. The references in the box at the end of this article contain extensive lists of appropriate plants.

Efficient Irrigation

Automatic sprinklers shouldn't be set on a timer unless you're gone for an extended period. But when you *are* gone, there is a type of shut-off valve that will turn the sprinkler

off if it rains. Frequent watering encourages shallow grass roots, which causes the grass to be stressed in dry periods.

Encourage deep rooting by following lawn expert Warren Schultz's recommendations. He suggests not watering your spring lawn until digging shows dry soil 9 inches down. Then water the soil to that depth again. This forces the roots to reach down for water. Long roots help grasses hold up in summer heat. Using a soil sample tube disturbs the lawn less than digging.

Don't plant narrow strips of lawn between sidewalk and street; instead, use mulches or ground cover which require little or no water. Watering can undermine your concrete, and it's wasteful. For small turf areas, use manual hose-end sprinklers which deliver water more slowly. Where water pressure is lower, less water will be lost through misting.

For irrigation, water pressure is important. Measure gallons per minute simply by timing how long it takes to fill a 5-gallon bucket with your yard faucet on full. Drip systems need a lower water pressure, sprinklers more pressure. Your water pressure may determine your ideal type of water system.

Mulching

Water in Colorado Springs is piped in from sources 100 miles away. Astronomical water bills have taught those gardeners to reduce the areas of their water-guzzling bluegrass lawns with creative mulches. The native rose-colored rock appears as beds of gravel or larger pebbles hiding black landscape fabric. Well-spaced pockets of soil hold evergreen shrubs and native trees that contrast beautifully with the rosy stone beneath them. Wood-chip mulches are used under the shrubbery. Some rock gardens are composed completely of boulders and smaller size rocks of various colors artfully arranged.

For us, wood-chip mulches are more practical. The deeper the mulch, the better the weed prevention and water preservation. Large bark pieces take a long time to add to the soil and let the weed barrier show through. Pine needles, ground oak leaves and smaller bark chips are useful and eventually improve the soil.

Maintenance

Generous use of mulches makes weed prevention easier. Vigilant removal of weeds that do appear is timesaving. Watch for plants in the wrong moisture zone; plan to move them at appropriate times. And remove no more than one-third of the grass blade at a time when mowing. ♦

References

At Laman Library, North Little Rock

Druse, Ken: *The Natural Habitat Garden* (1994, Clarkson Potter)
Erler, Catriona: *The Garden Problem Solver* (1994, Simon & Schuster)

Nehrling, Arno and Irene: *Easy Gardening with Drought-Resistant Plants* (1968, Hearthsides) also at Little Rock Main Library
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Ellefson, Connie et al.: *Xeriscape Gardening* (1992, Macmillan) Endorsed by NXCI

Home, *Xeriscaping* June 1999, pp. 68-80. Also see www.aggiehorticulture.tamu.edu

Cool Season Lawns For Arkansas

This information is from the University of Arkansas Cooperative Service Publication MP 269 by Gerald L. Klingaman and John W. Boyd.

Growing a good lawn in Arkansas doesn't require the touch of an expert gardener, but it does require some attention to basics. Most important of these is choosing the grass you will plant.

Arkansas is a transition state. That is, you can grow both the cool season grasses grown in the northern states and the warm season grasses grown in the Deep South. Unfortunately, neither kind of lawn does quite as well as the cool season would further north nor the warm season grass would further south.

Most Arkansas lawns have plantings of warm season species such as bermuda, zoysia, or St. Augustine grass. Warm season species initiate growth with the first warm days of spring and cease growth with the first killing frosts of fall or during long dry periods.

Cool Season Grasses

Cool season grasses, such as fescue and bluegrass, begin growth during the first rainy periods of fall and continue growth until the following summer when heat and/or drought stops growth. Little growth occurs from mid-December through February. Over the year, cool season grasses have more days of green than their warm-weather cousins do. This difference diminishes as one heads south in the state.

Cool season grasses are more shade tolerant than most warm season grasses. With the tremendous number of trees in the state, this is a great advantage. Unfortunately, cool season grasses have less drought tolerance than the warm season grasses. Proper species selection and watering during severe droughts can overcome this disadvantage. Fescue, bluegrasses and ryegrasses are the only cool season grasses adapted for lawns in Arkansas.

Fescues

Of the 100 species of fescue throughout the world, tall fescue is the most important in Arkansas. Tall fescue is a coarse textured, bunch-type grass widely used in Arkansas for pastures. It is adapted to a wide array of soil conditions and environmental stress. Of the cool season grasses, it has the best drought and heat resistance and shade tolerance.

Bluegrass

Bluegrass is the lawn of choice in most northern states, but it is not as well adapted to our conditions. The most popular and desirable bluegrass, Kentucky bluegrass, is a spreading grass with fine texture, good density and color, and excellent tolerance to close mowing. It has good shade tolerance. Seeds require about 14 days for germination. The best bluegrass lawns require high maintenance levels.

Ryegrass

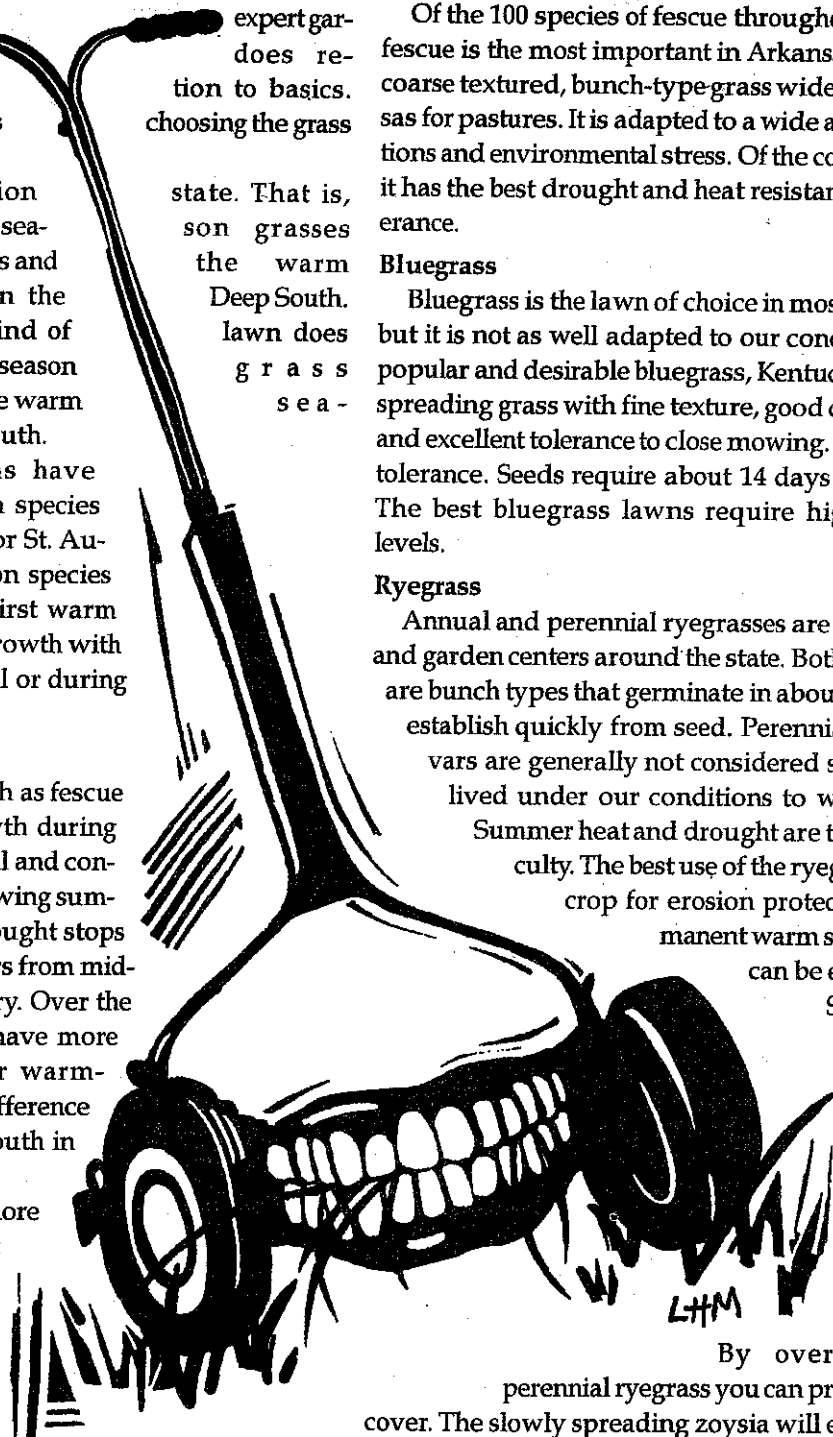
Annual and perennial ryegrasses are sold in nurseries and garden centers around the state. Both of these grasses are bunch types that germinate in about seven days and establish quickly from seed. Perennial ryegrass cultivars are generally not considered sufficiently long-lived under our conditions to warrant planting. Summer heat and drought are the primary difficulty. The best use of the ryegrass is as a cover crop for erosion protection until a permanent warm season grass lawn can be established.

Slow-to-establish grasses, such as zoysia, are usually plugged or sprigged into the lawn leaving bare patches between plants.

By overseeding with perennial ryegrass you can produce a uniform cover. The slowly spreading zoysia will easily crowd out the ryegrass as it grows.

All art is an imitation of nature.

— Lucius Annaeus Seneca



Figs, continued from page 1

winter. Apply 2 to 3 cups of a balanced (6-6-6 or 8-8-8) fertilizer with micro-nutrients three times a year to mature, in-ground plants.

For the best fruit production, water your figs regularly during the growing season unless rainfall is adequate. Take care that the soil is not constantly soggy. When fall arrives, stop watering and allow your plants to harden off. A word of caution: heavy rains and excessive or sporadic watering may cause the fruit to split. The rule of thumb is that the riper the figs, the more they will split.

Propagating Figs

Figs are easy to propagate, as they root very easily. There are several ways to propagate them. The most common method is to root leafless cuttings taken in late winter or early spring.

Overwintering figs

This year is the 200th anniversary of the death of George Washington. Every aspect of his life — political, military and Mount Vernon gardens — is being documented in new books. The Mount Vernon Gardens book will be reviewed in a future "Master Minutes". Mount Vernon is a northern site for figs so George wrote from Valley Forge instructions for the gardener to follow in winterizing fig trees.

Figs that are completely dormant before severely cold weather arrives can tolerate temperatures down to 15 to 20°F. with little or no damage. Some varieties are hardier and can tolerate even lower temperatures. If the top is winterkilled, the plant will probably come back from the base or underground parts.

In severe climates, a fighouse can be built by setting pressure-treated posts in the ground around the tree. As winter approaches plywood is attached to the posts to form walls and a roof. Fifty-five gallon drums of water placed in the fighouse can store heat energy and release it as the temperature falls.

Permanently planted trees can be bent over, weighed down and buried. Container plants can be brought indoors.

Disease And Pest Problems

Figs are relatively pest and disease free, but they do have problems. The most serious problem for Southern growers who have light sandy soils is

root knot nematodes. This type of infestation is easy to diagnose. Just uncover some roots and inspect them. If you see tiny galls or swellings on the roots, you have the nematodes. The best control is to destroy infested plants and not use that site for figs again.

Fig trees and fruit are sometimes attacked by a variety of borers, mealybugs and scale insects. Dried-fruit beetles will sometimes enter figs through the eye of the fruit and cause them to sour. The best remedy for these problems is sanitation. Prune and burn infested wood and fruit. Don't allow piles of leaves and fruit to accumulate and offer breeding sites for the insects.

Fig rust is a fairly serious fungal disease. It attacks young leaves, causing defoliation. It is also easy to recognize from the small yellow-green spots that appear on leaves. The spots will get bigger and turn brown. The leaf will soon yellow and fall. You can control fig rust by sanitation measures. Extension services also recommend spraying the new leaves with a 4-4-50 Bordeaux spray at three to four week intervals (more often in rainy weather). This will also protect your plants against other leaf and twig blights.

Mosaic is a viral disease to which figs are more or less susceptible. The plainest symptom is mottled leaves. Some varieties are dwarfed — leaves and fruit — by mosaic, others are scarcely affected. Mosaic is incurable but rarely a reason to discard plants.

Additional information may be found in the USDA Handbook No. 87, that covers the most common problems for figs.

Much of the information in this article is from the North American Fruit Explorers, Inc. (NAFEX) web site. NAFEX is a network of individuals throughout the United States and Canada devoted to the discovery, cultivation, and appreciation of superior varieties of fruits and nuts. *

Master Gardeners In The News

The Contemplation Garden in MacArthur Park was chosen as the site for a Keep Arkansas Beautiful commercial, which tentatively will air this month. *

Spread The News

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

Please provide your information to us by August 10, to include it in the September newsletter. You may mail it to Beth. You may call Rose Hogan at 374-9429, or Beth Phelps or Mrs. McKinney at 340-6650. Or you may call Cheryl Kennedy at 753-8192, fax her at 753-6305, or e-mail her at inthegarden@aristotle.net.

If you have late-breaking news unavailable by August 20, Beth may be able to add it to her letter that is mailed with the newsletter. Contact her before the last week of the month prior to publication (end of August for the September newsletter). *

Master Minutes Staff — 1999

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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 1998, these volunteers gave more than 7,000 hours of service.

Elisabeth J. Phelps
County Extension Agent — Agriculture



September 1999

Volume 10 Issue 8

Salvias Offer Long-Lasting Color

Prepared for the National Garden Bureau by Eleanor Lewis

Salvias bring color to the garden from late spring through early fall. They are indispensable for gardeners who want pretty, bright, long-lasting flowers to enjoy in the garden and in arrangements.

The three that are easiest to grow from seed or are most readily available as bedding plants at garden centers and nurseries are scarlet sage (*Salvia splendens*), mealy cup sage (*S. farinacea*) and *S. coccinea*. With colors that range from red, scarlet, salmon, purple, and lilac to deep and light blue, white and bicolors, salvias offer an amazing number of design possibilities.

Background

The genus *Salvia* contains at least 900 species and, because they readily cross-pollinate, innumerable hybrids, both natural and manmade. Salvias are found on almost every continent in the world.

S. splendens became the focus of American breeders back in the 1980s. *S. splendens* was a red spike flower available on plants of various heights. Modern bedding salvias, including flower colors other than red, were bred recently. Using the genetic variability he knew was present in scarlet sage, Ron Schlemmer at Harris Seeds began selecting for specific colors and habits. His efforts culminated in 1991 with the early-blooming Sizzler series, available first in a hot red color and subsequently in numerous colors: pink, orchid, plum, orange, salmon, burgundy, and white. It was the Sizzler series that began the modern types with colors not seen before in salvias for the North American home garden.

The same type of selection and breeding went into the first bicolored *S. farinacea*, 'Strata'. An All-America Selections winner in 1996, 'Strata' was bred by Floranova Ltd., one of the few remaining British seed companies to breed and produce new home garden flower seeds.

The Salvia Family Tree

Salvias are members of the mint family, *Labiatae*, and they're easily recognized by their square stems and opposite pairs of leaves, which are usually rather velvety or hairy. One of the more familiar salvias is the perennial common garden sage (*S. officinalis*), and its colorful, fragrant variations. Salvias for the flower garden include many perennials and annuals, as well as perennials that are treated as annuals. Both *S. splendens* and *coccinea* are often known as scarlet sage, which could cause confusion at a garden center, but the plants' habits are quite dissimilar. *S. splendens* has a rather neat and compact growth habit,

while *S. coccinea* has retained some of its "wild" heritage and is perhaps a little more unkempt-looking.

All three of these salvias, *S. splendens*, *S. farinacea*, and *S. coccinea*, bloom from late spring through the first frosts in autumn — longer in areas that are frost-free. The blooms form along spiky stems, and each flower has two parts — a colorful tube that projects out from a surrounding "case". The tube and case can be the same color, shades of the same color, or completely different, as in bicolor salvias. *S. farinacea* 'Strata' has a silvery white case and blue tube, *S. splendens* Empire 'Light Salmon' has a salmon red case and pale salmon, almost pink, tube. From a distance, such colorations create a shimmering sight.

Growing Salvias — Selecting A Site

Salvias grow well in full sun but most also do nicely in partial shade. Full sun means six or more hours of direct sun daily. Partial shade translates into an east location, where the plants will be exposed to morning sun but enjoy afternoon shade. A western exposure may be too hot for salvias, depending on your geographic location. In the South, plant salvias where they will have some protection from midday sun.

Growing Salvias — Preparing The Soil

Salvias need soil that drains well, whether they're planted in the ground or in containers. In soil that's too wet or too dry, the plants will just sit, producing no new growth or flowers. In water-logged soil, the roots may rot. When you have selected a site, amend the soil by digging in a 2-inch layer of compost or peat moss before planting. Some salvias, particularly *S. splendens*, are sensitive to alkaline soil. *S. farinacea* and *coccinea* are more tolerant of it.

Starting Salvias From Seed

Salvias are easy to grow from seeds. Their most important requirements are:

See *Salvias*, cont. on page 2

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Salvias, continued from page 1

ment is light while they are germinating, so you shouldn't cover the seeds with soil. Plan to sow the seeds indoors 6 to 8 weeks (10 to 12 weeks for *S. farinacea*) before the average last frost date in your area.

Procedure

1. Fill a shallow container, or flat, with a commercial seed-starting mix. Moisten the mix and let drain.

2. Sow the seeds in rows, or scatter them over the mix. Do not cover the seeds. They need light to germinate. Simply press the seeds down so they come in contact with the mix. Spritz the mix with enough water to moisten it slightly; spritzing also helps to ensure that the seeds are "nestled" into the mix.

3. Cover the flat with a sheet of clear plastic wrap, or place it in a plastic bag closed with a twist tie, to keep the mix from drying out while the seeds are germinating.

4. Set the flat in a warm, bright location or under grow lights. Keep the growing medium at about 75° F. When seedlings emerge in 7 to 14 days, remove the plastic cover. Keep the mix evenly moist — not soggy — by watering the flat from the bottom. Set it in a sink filled with 1 to 2 inches of water until you see beads of moisture on the surface of the mix.

5. When the seedlings have at least two sets of true leaves, they will be large enough to handle, and you can transplant them into individual 2-1/4 inch pots. When they reach 4 inches in height, pinch back the growing tips to encourage branching. Keep pinching occasionally so the plants will continue to branch so they'll provide you with more blooms over the season. Plant salvias outdoors when the weather and soil have warmed up, about the time you plant impatiens and peppers.

Transplanting Into The Garden

Plant salvias outdoors when the air and soil are warm. The best time to transplant any plant is on a cloudy day or in late afternoon so that the plants have a chance to get settled in before they have to contend with drying effects of the sun. Set salvias in the ground at the same depth or slightly below the level they were growing in the pots. Space *S. splendens* and *S. farinacea* 10 to 12 inches apart. Space *S. coccinea* 8 to 12 inches apart. The closer spacing will give you an impressive planting more quickly.

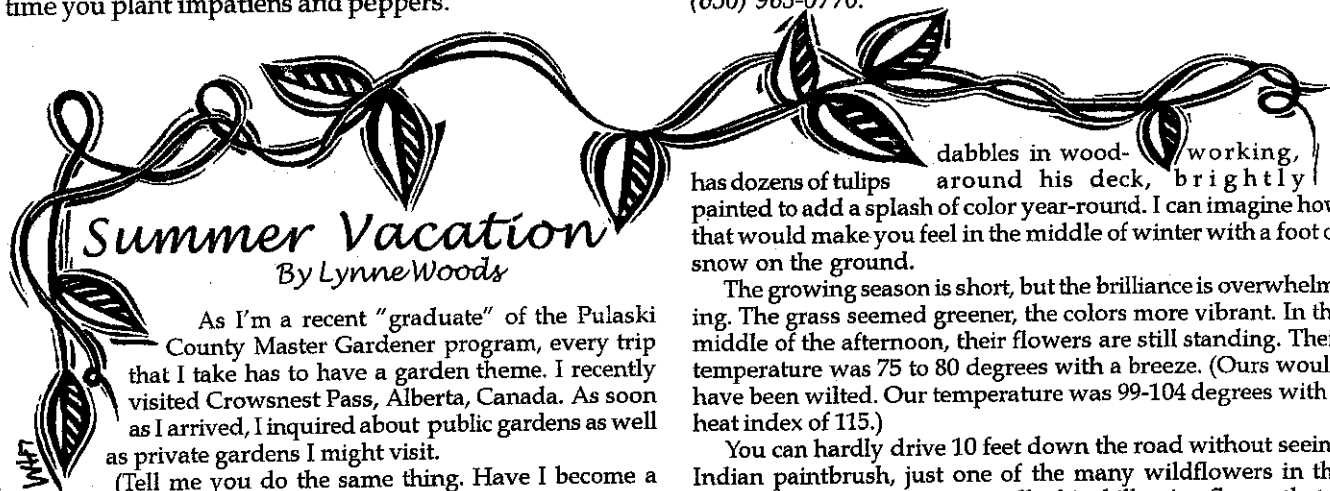
Taking Care Of The Plants

Salvias are relatively carefree, but they do need some attention. Water regularly if it doesn't rain. Lack of moisture is as detrimental as soggy soil. Fertilize plantings in the garden once a month with a balanced granular or water-soluble fertilizer. Because salvias will continue to bloom into fall, remember to keep feeding them. Salvias aren't messy plants, but you may want to cut off spent blooms to keep the plants branching to increase flowering, and to avoid the chance of botrytis.

Pests And Diseases

Most gardeners find *S. splendens*, *S. farinacea*, and *S. coccinea* to be relatively pest- and disease-free. The diseases and pests that can plague salvias are usually problems in the greenhouse for growers, not in the home garden. However, you might want to keep an eye out for white fly, spider mites, and aphids, all of which are greenhouse menaces. Spent flower spikes can encourage botrytis, especially in cold, wet weather. *

For more information, write or call the National Garden Bureau, 1311 Butterfield Rd. Ste 310, Downers Grove, IL 60515. (630) 963-0770.



Summer Vacation

By Lynne Woods

As I'm a recent "graduate" of the Pulaski County Master Gardener program, every trip that I take has to have a garden theme. I recently visited Crowsnest Pass, Alberta, Canada. As soon as I arrived, I inquired about public gardens as well as private gardens I might visit.

(Tell me you do the same thing. Have I become a fanatic? — I should let my friends answer that. They'll all tell you I have a passion for the garden.)

What I find interesting is that the people I visit share the same passion and therefore enjoy showing off their gardens. While on "holiday," as they say in Canada, I met Bob and Sharon Chabbert. They let me walk around their garden spot, take pictures of their beautiful foliage, and ask questions about their way of gardening. Oddly enough, though they are in Zone 2, they plant their gardens in the spring on the same date that I do. Knowing that they have a stronger chance of frost, they simply persevere.

They have very little topsoil; therefore Bob uses a lot of manure. His soil was so rich and dark (and never sticks to your shoes). On July 25, they still had a lilac in bloom. Bob, who

dabbles in wood-working, has dozens of tulips around his deck, brightly painted to add a splash of color year-round. I can imagine how that would make you feel in the middle of winter with a foot of snow on the ground.

The growing season is short, but the brilliance is overwhelming. The grass seemed greener, the colors more vibrant. In the middle of the afternoon, their flowers are still standing. Their temperature was 75 to 80 degrees with a breeze. (Ours would have been wilted. Our temperature was 99-104 degrees with a heat index of 115.)

You can hardly drive 10 feet down the road without seeing Indian paintbrush, just one of the many wildflowers in the area. Another is bear grass, a tall white billowing flower that is grown in alpine regions. Another beautiful bloom, the clustered bellflower, is a bright purple flower seen in every garden in Crowsnest Pass. It's amazing how many different plants you can see there that we will never see here. I found it tempting to pick everything I could get my hands on, but I refrained.

Although you can't take live plants across the border, you can visit a nursery and purchase seeds. These may be my best souvenirs. To purchase perennial seeds you can potentially enjoy for years, that every time you look at them you'll have a wonderful reminder of a special place and time — this is my idea of a great vacation.

Thanks, Bob and Sharon, for allowing us time in your garden and Clark and Jane Goodwin for opening your home to us. *

Calendar And Notes

By Laurie Pierce

The Missouri Botanical Garden, St. Louis, will host its *Annual Japanese Festival* 9 a.m.-8 p.m. September 4-6. Highlights include tours of the Japanese garden, tea ceremonies, bonsai, contemporary Japanese decorative arts, and cooking demonstrations. Admission is \$6, \$4.50 for seniors, free for ages 12 and younger. (800) 642-8842 or (314) 577-9400.

The *Arkansas Hosta Society* will meet at 2 p.m. September 12 at Christ Episcopal Church, 509 Scott Street. 375-2342.

The *Central Arkansas Rose Society* will meet at 7 p.m. September 13 at the Garden Clubs Center of Little Rock, 1501 Kavanaugh Blvd. 663-7515.

Monthly meetings for the Pulaski County Master Gardeners resume at 11:30 a.m. September 14 at the University of Arkansas Cooperative Extension Service state office on South University Avenue.

The *Arkansas Chapter of the Sierra Club* will meet at 7 p.m. September 14 at Second Presbyterian Church, 600 Pleasant Valley Drive. 227-0000.

The *Central Arkansas Horticultural Society* will meet at 6:30 p.m. September 14 at the Garden Clubs Center of Little Rock, 1501 Kavanaugh Blvd. 663-7515.

The *Arkansas Unit of the Herb Society of America* will meet 11 a.m. September 16 at the Garden Clubs Center of Little Rock, 1501 Kavanaugh Blvd. 663-7515.

The Missouri Botanical Garden, St. Louis, will conduct its *Fall Plant Sale and Bulb Extravaganza* September 18-21. St. Louis-area Master Gardeners will be on hand Saturday and Sunday to answer questions, and plant item prices are reduced by half for the cleanup sale on Monday and Tuesday. All sales benefit the Missouri Botanical Garden. Daily admission is \$5, \$3 for seniors, free for ages 12 and younger. (800) 642-8842 or (314) 577-9400.

The *Arkansas Orchid Society* will meet 1:30 p.m. September 19 at Christ Episcopal Church, 509 Scott St. 375-2342.

The *Central Arkansas Iris Society* will meet at 2 p.m. September 19 at the Garden Clubs Center of Little Rock, 1501

Kavanaugh Blvd. 663-7515.

The Ozark Folk Center State Park, Mountain View, will conduct its *Annual Sumptuous Herbal Fall Reception and Feast* at 7 p.m. September 30. The cost is \$20, and registration is required by September 16. (501) 269-3851.

October

The Ozark Folk Center State Park in Mountain View will host its *11th Annual Herb Harvest Fall Festival* October 1-3. On

October 2, Lucia Bettler of Houston, Texas will be the featured speaker. Bettler operates an herb specialty shop and has taught about herbs for 22 years.

She will speak about "Fairies, Gardens and Other Wee Folk" on

Friday morning

and "Magical Herbs and Bee Lore" on Saturday morning.

Other speakers will be Tom Bergey on "Recipes From the Golden Trowell Herb Farm" and Viola Jay on "Victorian Christmas Ideas From History." The Herb Harvest Fall Festival will close with its annual afternoon tea at 3:30 p.m. Sunday. Other highlights include garden tours, craft vendors and live music. Preregistration for the Herb Harvest Fall Festival costs \$70 for both days, \$75 after September 17. A one-day visit to the festival costs \$40. (501) 269-3851.

Master Gardeners in Sebastian County will help put on a *Festival of Flowers* October 16-17 at Westark Community College and Creekmore Park, both in Fort Smith. Janet Carson will speak about perennials and headline eight speakers on Saturday, and the Fort Smith Rose Society will conduct a rose show. A butterfly conservatory will highlight Sunday activities at Creekmore Park, and a self-guided tour will feature trees maintained by Master Gardeners in the park. A residential tour 10 a.m. - 4 p.m. Sunday will showcase six to eight local homes. Admission to Festival of Flowers is free; the residential tour costs \$10. (501) 785-5492.

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3



September Checklist For Gardeners

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 dead-heading *perennials*. Cut back *poinsettias* to the desired height; leave three or four leaves per stem. 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 or 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: *colchicum*, *crocuses*, *baby cyclamen*, and *white swamp lilies*.

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*, and *winter savory*.

Divide And Multiply

Dig, divide, and replant *iris* if overcrowded. Make sure each 2- to 4-inch division contains a part of the rhizome, some roots and foliage. Cut foliage back to about 6 inches and replant not more than 2 inches deep in well-prepared soil.

You can still divide overcrowded *daffodils*, *daylilies*, and *madonna lilies* as well. Carefully dig and lift clumps and break them apart. *Coneflowers*, *yarrow*, *pinks*, *lamb's 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 to 2 inches below soil level, tree peonies at 4-7 inches deep.

Extra care should be taken to ensure 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*, *bermuda* and *zoysia* 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 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.

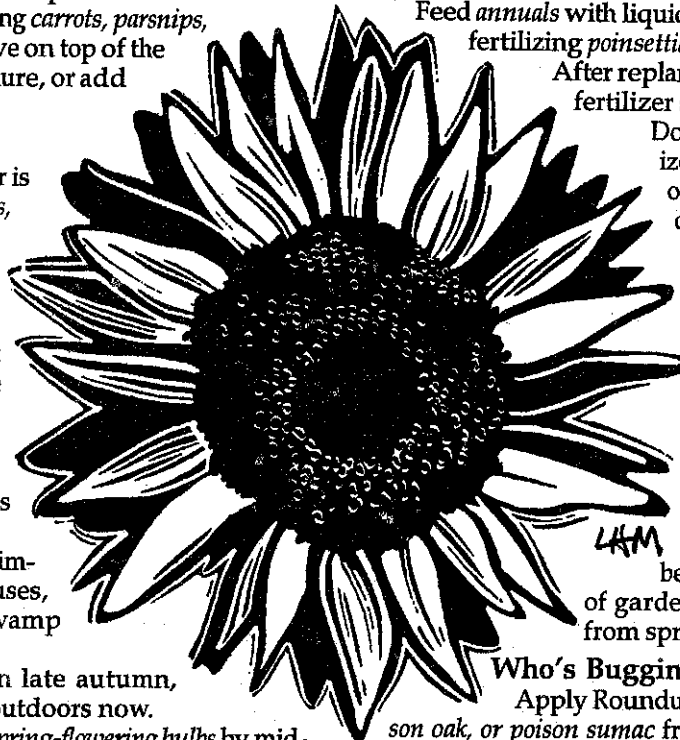
Who's Bugging You?

Apply Roundup now to keep *poison ivy*, *poison oak*, or *poison sumac* from storing up nutrients for winter, and 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, and 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 myrtle*, *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 10 days apart, to control *aphids* and *lacebugs*. If you have taken your *houseplants* outdoors for the summer, bring them in when temperatures are predicted to drop below 55°. 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.



See Checklist, continued on page 8

Hints And Tips From The Current Literature

As hard as it is to imagine when the temperature is reaching the high 90s, to every Arkansas garden a frost must come. When frost is in the forecast, be ready to spring into action to extend the growing season. Often the first frost is followed by weeks of warmer weather, so, by protecting your plants, you can enjoy them much longer. For best protection, cover tender plants and flowers with old sheets, blankets, five-gallon buckets, nursery pots, or newspapers. Remember to secure the coverings so they don't blow off during the night. If you get caught unaware, try sprinkling frosted flowers with water in the morning before the sun strikes them. This will encase them in ice and protect them. If the forecast calls for colder weather to settle in, go ahead and cut your flowers and harvest your vegetables.

The majority of popular plants grown in outdoor containers are very susceptible to frost damage, especially around the roots. But these plants can survive winter's onslaught if you protect them with proper insulation. To insulate a large container-grown plant, begin by crushing single sheets of newspaper into tennis-ball-size wads. Place the balls of paper in plastic garbage bags, filling the bags but not packing them too tightly. Close up the tops and secure with string or plastic ties. Pack the paper-filled plastic bags neatly around the sides of the container and tie in place.

*Woman's Day Better Living Series
Gardening & Outdoor Living Vol. 9, #3,
1999*

Although they can be as troublesome as weeds, self-seeders are usually welcome volunteers that add complexity and color to your garden. Encouraging self-seeders and letting them do their own thing can be a useful strategy for garden making. Many favorite self-seeders, such as purple columbine, toadflax, and annual poppies, enter gardens "over the fence." Other plants, such as mullein pink, forget-me-not, borage, fennel and feverfew, are long-distance migrators.

Or you can start self-seeders yourself which will be treasures in the years to come, like cerinthe major, cleome, euphorbia dulcis, linaria, nicotiana sylvestris, nigella, and verbenas bonariensis.

Rebecca's Garden, September 1999

If work keeps you away from home during the day, evening may be the best time for you to enjoy your garden. As the sun sets on another summer day, your garden goes through a subtle transformation. Flowers in pigment-rich hues that assert themselves in sunlight — red, violet and

orange — disappear into the dusk. Attention shifts to blooms in white, butter yellow, and the palest of pinks and lavenders that stay bright in the twilight. Floral perfumes scent the evening air. White-variegated or silvery foliage remains softly luminous long after green leaves have faded to black. Therefore choose plants for an evening garden that are night bloomers or have silver foliage, luminous blossoms, or evening scents.

Better Homes and Gardens, August 1999

While Mother Nature plants trees, shrubs, and flowers using the wind blowing across the landscape to disperse seeds from old, dried flower heads, we as gardeners are able to select seeds and throw them where and when we want quick, colorful displays.

By sowing seeds now, you will have summer flowers in the fall. You should do a little soil preparation beforehand. The soil should be loose, well drained, and fertile. Plants that may be seeded late in the summer include cosmos, zinnia, celosia, cleome, and tithonia. These plants should be up and flowering in six to 10 weeks.

Seeds need warmth and moisture to germinate quickly. In August there's plenty of warmth but moisture can be scarce. Make sure you have the ability to water. Small seeds such as these do not need to be covered with soil. Use a water wand with a fine-mist setting to settle seeds into the ground and keep the seedbed evenly moist. Fertilize with 20-20-20 at half strength when seedlings first appear. Feed once a month with full strength solution after the first true leaves appear.

*Southern Living, August
1999*

If you are interested in natural controls for pests, order Update Bulletin No.

540 which is a list of mail-order good-bug suppliers, pest/good-bug selector charts and bird and bat house plans. Include \$3.00 and a business-size SASE to James Dulley, c/o "Arkansas Democrat-Gazette", 6906 Royalgreen Drive, Cincinnati, Ohio 45244. In the August 8, issue of the "Arkansas Democrat-Gazette", Dulley addressed controlling mosquitoes with good insects and animals like dragonflies, bats and toads. Praying mantis also are excellent predator insects to have in your yard. Green lacewings can rid your garden of aphids. The tiny spider mite predator bug will eat 10 adult mites or 20 eggs daily. And beneficial nematodes control fleas and grubs.

"Arkansas Democrat-Gazette", August 8, 1999 ★



A Home For Wildlife In Your Backyard

With a little time and money you can convert your backyard or apartment windowsill into a haven for wildlife. The kind and number of animals attracted depends on the size of the yard, the plants chosen, and their placement. All animals require food, water and cover. A backyard wild-



life manager's goal is to provide these habitat requirements by creating a natural system that enables wildlife to care for itself.

First, you must inventory your yard and the benefits it provides. Are there berry- and nut-producing trees and shrubs? A water supply? Does the yard have shrubs with overhanging branches, evergreens, briars, or thickets where wildlife can find shelter?

Second, decide what types of wildlife you hope to attract and what habitat requirements must be provided for them. Backyard wildlife managers with heavily wooded yards probably won't attract nesting birds common to grasslands, yet their yards can be full of creatures that people in open areas can't hope to attract.

After reviewing your backyard habitat and deciding what types of wildlife you want, it's time to develop a backyard wildlife management plan. Mapping your yard and planning plantings helps develop a yard that maximizes benefits to both you and the wildlife.

Sketch the yard on paper, showing existing trees and shrubs, power lines, patios, and buildings. Then, after reviewing the lists of plants beneficial to the desired wildlife, add these to the backyard map. (These lists are available from the Arkansas Game & Fish Commission's Urban Wildlife Section.) Keep in mind the mature height of



the plantings. Don't plant tall trees where they interfere with power lines. And don't place berry-producing trees and shrubs next to patios and driveways where messy fruit poses a problem.

Trees can benefit you, as well as wildlife. Evergreens like cedar and pine trees, planted north of the house can decrease heating bills by protecting your home from cold winter winds. Tall shade trees planted along the west side of the house will filter out the hot afternoon sun and decrease summer cooling costs.

Leave enough open space to provide viewing areas. These areas also serve as open space for wildlife. Many animals require open areas for sunning and hunting insects. Larger trees should be planted in back, with smaller trees, shrubs, and flowers layered progressively in front. Vary the heights of planting for a visually pleasing effect.

Food

Each animal has its own food preferences, and these change seasonally. Providing an abundance and variety of wildlife foods year-round will attract and support many wildlife creatures.

Fruits, nuts and seeds are relished by wildlife and can be easily provided. Nut- and berry-producing trees and shrubs provide the foundation for most backyard wildlife manager's plans. Fruits of different trees and shrubs remain on plants for varying lengths of time. Blackberries and dogwood fruits are eaten soon after ripening. However, holly and viburnum berries are more persistent and remain on the plant well into winter when other fruits are gone. The backyard wildlife area should contain shrubs with both early and persistent fruits to provide wildlife food through late winter.

Hummingbirds and butterflies feed on flower nectar. Plant a butterfly and hummingbird flower garden in an open area affording easy observation and ample sunlight. Apartment dwellers can turn window boxes and patios into mini-wildlife areas for colorful butterflies and hummingbirds by planting nectar-producing flowers.



Many backyard animals are predators. In fact, most birds, including hummingbirds, feed on insects as well as seeds and berries. Backyard wildlife managers can allow these natural "pest controllers" to take care of insect problems, reducing the need for chemical insecticides. Insects are necessary to the backyard wildlife area. They're important high-protein food for feeding nestlings and the only food source for some animals. If insecticides must be used, use pyrethrum-based sprays. They aren't harmful to birds or mammals.

One of the most common ways to attract backyard wildlife is through feeding. Bird feeders supplement seasonal food lapses and are especially helpful to wildlife in late winter and early spring when natural food supplies are lowest. Keep in mind, however, that a natural food supply is more likely to make wildlife a permanent resident of your yard than feeding stations.

Cover

Cover is as essential to wildlife survival as food. It provides protection from predators and bad weather and acts as a safe home base for resting and raising young. Locate cover within 10 to 15 feet of food and water.

Water

Water is a wildlife requirement that can be supplied in something as simple as an inverted garbage can lid or as elaborate as a pond. Cover located close to the edge of a pond and shallow water vegetation increase water's attraction to wildlife. Running or dripping water is an added attraction and can be supplied with a fountain or a dripping hose attached to an overhanging branch.



Water supplies require year-round maintenance. A winter freeze robs animals of water, so break the ice during cold days.

See *Wildlife*, continued on page 8

Understanding The Numbers On Your Soil Test Report

By S. L. Chapman, Extension Soils Specialist; W. E. Sabbe, Professor of Agronomy; and W. H. Baker, Assistant Professor of Agronomy, University of Arkansas Division of Agriculture Cooperative Extension Service.

This information is taken from Publication FSA2118-3M-3-98R. There are three tables in the publication. One table is a general classification of certain nutrient and element levels extracted from the soil in the test. The second gives the percent fertilizer reduction suggested for home garden and blueberry samples depending on the soil texture, and the third table gives the residual soil nitrate-nitrogen interpretation for field and forage crops, except cotton.

A soil test is an index of the availability of nutrients for plant uptake. A routine soil test measures only a portion of the total pool of nutrients in the soil. The release of native nutrients and the "tie-up" of nutrients added from manure, fertilizers, compost and plant residues involve complex soil chemical and microbiological processes. This explains why the soil test will not normally reflect a "pound for pound" increase with addition of a nutrient. For example, five to 10 pounds of actual phosphorus addition may result in a one pound increase in the soil test phosphorus level.

The University of Arkansas has been routinely testing soil samples for fertilizer and lime recommendations on a large scale since the early 1950s. Many technological improvements have been made to provide you with "state-of-the-art" programs. In making interpretations and recommendations, they rely on the decades of plant response data generated by research and observations of experienced agronomic and horticultural scientists, both in Arkansas and in surrounding states. The philosophy is to provide fertilizer recommendations aimed at achieving the greatest economic efficiency in agronomic or horticultural yield while avoiding an adverse impact on the environment. Appropriate management must accompany these recommendations if yield and environmental goals are to be realized. The need for any nutrient application depends on the soil test level, the soil type or cation exchange capacity of the soil, the crop and yield expected, the time of year and the cultural and other practices to be followed.

Interpretation of your soil test report applies only to routine tests conducted by the University of Arkansas soil-testing laboratory and should not be used to interpret

information provided by other laboratories.

Most nutrient levels are reported in pounds per acre. One part per million is equivalent to two pounds per acre, assuming a six-inch layer of soil in an acre weighs approximately two million pounds.

Soil Reaction Or pH

The soil reaction of pH is a measure of the acidity or alkalinity of the soil. A pH of 7 is neutral. Values below 7 are acid, while those above 7 are basic, or alkaline. Each whole unit change in pH represents a ten-fold difference in acidity or alkalinity. For example: a pH of 5.2 is 10 times more acidic than a pH of 6.2.

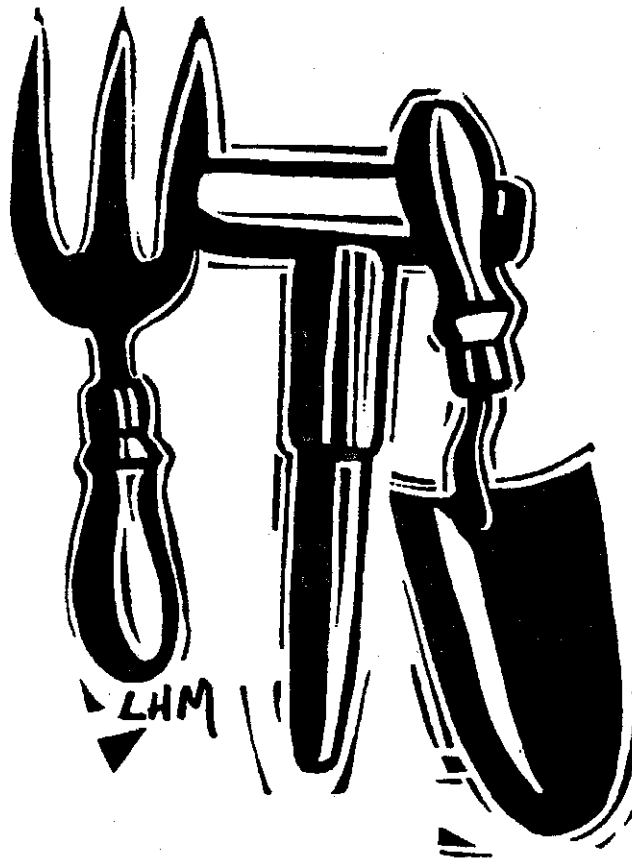
For most vegetable crops, a pH of 5.8 to 6.2 is optimal. A pH of 5.5 to 5.8 is desirable for roses, turfgrasses, fruits and nuts. Certain shrubs and blueberries thrive in soils with a pH below 5.5. Most crops visually suffer when the pH drops below 4.8. Lime is recommended to neutralize harmful soil acidity. At equal pH values, a clayey soil will require more lime to neutralize soil acidity than will a sandy or silty soil. Elemental sulfur or aluminum sulfate will be recommended if you need to acidify the soil (lower the soil pH).

Element Content Levels

Phosphorus (P), potassium (K), calcium (Ca), magnesium (Mg), sodium (Na), sulfate-sulfur ($\text{SO}_4\text{-S}$) and nitrate-nitrogen ($\text{NO}_3\text{-N}$), and iron (Fe), manganese (Mn), copper (Cu) and zinc (Zn) extractable levels in the soil are reported on the test report. The value in addition to the type of soil and the pH must be taken into consideration in determining the amount of fertilizer to add, if any.

Additional Measurements To Consider

Organic matter (O.M.), salt content (also referred to as electrical conductivity or E.C.), cation exchange capacity (C.E.C), percent base saturation (% Base Sat.) and percent potassium (K), magnesium (Mg) and sodium (Na) saturation measurements can also be made and factored into the total soil test report.



Wildlife, continued from page 6

Management

Now that the backyard wildlife area is planned, it's time to begin work. If you're a gardener with limited experience, ask the county extension agent or local nurseryman for advice. They can provide information about planting, maintenance, and most importantly, what plants grow best in the area. Arkansas has unpredictable weather, and plants thriving in south Arkansas may not withstand an Ozark winter.

Soil conditions are also important. Some plants tolerate almost any soil type, while others require more exacting conditions. In addition to easy-to-use soil testing kits that can be purchased at nurseries and garden-centers, your local county extension center can provide this service.

As the years go by and your backyard wildlife area matures, you'll see a change in the number and kinds of wildlife frequenting it. A limited number of animals can use a single yard as a home or resting area. Do your best with the available resources, whether it's a yard, or several acres, or a window box outside an apartment. Learn to enjoy the wildlife frequenting even the smallest area.

Managing a backyard wildlife area is enjoyable, but some animals can become nuisances. If an undesirable situation arises, you can accept it or control it. If control is the choice, remove the bothersome animal or change the habitat attracting it.

In a few years, you should see an amazing transformation in the backyard. The lawn should blossom into a garden teeming with birds, butterflies, flowers, and fruit. Property values rise three to 10% with the addition of vegetation and tree cover. Tall trees cut down on dust and noise pollution and decrease heating and cooling bills by providing windbreaks and shade.

Most rewarding of all, however, is the feeling of pride experienced from doing your part for conservation. Natural resources have declined due to negligence and abuse. It often seems there's little we can do as individuals. Yet by developing your own backyard wildlife habitat area and encouraging others to follow suit, you'll make a considerable contribution. And this contribution is made in the environment that means the most to you — in your own backyard.

This Arkansas Game and Fish Commission Backyard Wildlife Program has been carried on for almost 15 years. People who have participated in it are designated Backyard Wildlife Managers and have received a certificate designating their yard as a Backyard Wildlife Area and a "My backyard is for the birds ... and all wildlife" bumper sticker.

This program has received new funding and is being redeveloped at this time. When it is ready to be implemented, the State and the County Cooperative Extension Service will be your local contact. In the meantime, Karen Rowe, Urban Wildlife Biologist, has a number of publications on attracting wildlife. Give her a call toll-free at (877) 873-4651.

Spread The Word!

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

Please provide your information to us by the date of the MG meeting prior to publication (in other words, if you want people to see your message in the October newsletter, get your news to us by September 14th meeting. You may bring it to the meeting. You may mail it to Beth. You may call Rose Hogan at 374-9429, or Beth Phelps or Mrs. McKinney at 340-6650. Or you may call Cheryl Kennedy at 753-8192, fax her at 753-6305, or e-mail her at inthegarden@aristotle.net.

If you have news unavailable by the 20th, Beth may be able to add it to her letter that is mailed with the newsletter. Contact her before the end of the month prior to publication (September for the October newsletter).

Checklist, continued from page 4

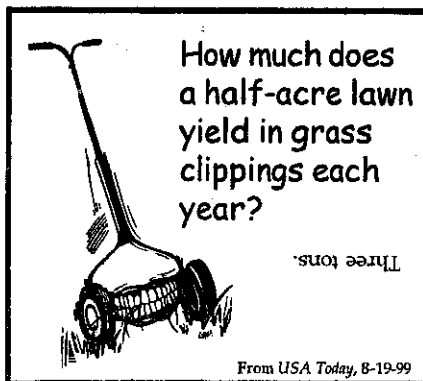
Blooming Schedule

Ageratum, althea, asters, hardy begonia, buddleia, calicarpus, 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.

Pulaski County Master Gardener Requests For Help

Roxie Adams needs some snippets/prunings of fresh herbs if anyone has some. Her date for using them in her project is September 15 or 16. Please give her a call at 224-7973.

Rose Hogan, coeditor of "Master Minutes", needs to locate a copy of the January 1994, Volume 5, Number 1 issue of the "Master Minutes". It will be photocopied and returned to you. Give her a call at 374-9429.



Master Minutes Staff — 1999

Chair/Editor	Rose Hogan
Co-Chair/Layout	Cheryl Kennedy
Art Staff	Lisa Hanson Mantle
	Lois Clifton
	Nelwyn Davis
	Claude Epperson
	Ann Green
	Annette Hurley
	Julia Loyall
	Linda Murphey
	Gena Norris
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	Claudia Stallings
	Libby Thalheimer
	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 1998, these volunteers gave more than 7,000 hours of service.

Elisabeth J. Phelps
County Extension Agent — Agriculture



October 1999

Volume 10 Issue 9

If It's October, It's Pumpkin Time!

History of the Jack of the Lantern

In Ireland where Halloween began, the first jack-o'-lanterns weren't pumpkins. They were made of rutabagas, potatoes, turnips, and beets.

An old Irish legend is that a man named Stingy Jack was too mean to get into heaven and had played too many tricks on the devil to go to hell. When Jack died he had to walk the earth carrying a lantern made out of a turnip with a burning coal inside. Stingy Jack became known as "Jack of the Lantern" or "Jack-o'-Lantern."

From this legend came the Irish tradition of placing jack-o'-lanterns made of turnips and other vegetables in the windows or by doors on Halloween. The jack-o'-lanterns are meant to scare away Stingy Jack and all other spirits that are said to walk the earth on that night.

It wasn't until the tradition was brought to the United States by immigrants that pumpkins were used for jack-o'-lanterns.

Often used as an ornament, the large Jack-O-Lantern variety has become the national symbol for Halloween, although it is edible. The smaller sweet pumpkin or pie pumpkin is best for cooking. The flavor and texture are much more suitable for baking, and it is served up annually in pumpkin pie at Thanksgiving.

Botanical Identity

Pumpkins are a warm season vegetable that is grown throughout much of the United States. It and squash are members of the family Cucurbitaceae. They have trailing or climbing vines with tendrils and large, palmately lobed leaves. Their flowers are unisexual and generally yellow to orange to red-orange. Their fruit is a pepo (a fleshy structure). They usually range in size from miniature, at two pounds, upward to 100 pounds. The largest on record was 1,060 pounds.

When To Plant

Pumpkins are very tender vegetables. The seeds do not germinate in cold soil, and the seedlings are injured by frost. Do not plant until all danger of frost has passed and the soil is thoroughly warmed. Plant pumpkins for Halloween from late May in a northern location to early July in extremely southern sites. If pumpkins are planted too early, they may soften and rot before Halloween.

Care

Pumpkin plants should be kept free from weeds by hoeing and shallow cultivation. Irrigate if an extended dry period occurs in early summer. Otherwise, pumpkins tolerate short periods of hot dry weather pretty well.

Bees are necessary for pollinating pumpkins, so be careful of insecticide use. Apply insecticides in late afternoon or early evening when the blossoms have closed for the day and bees are no longer visiting the blossoms. As new blossoms open each day, bees land only inside the open blossoms. Thus pollinating insects should be safe.

Common Problems

Powdery mildew causes a white powdery mold growth on the upper side of leaves, which can kill the leaves prematurely and interfere with proper ripening.

Cucumber beetles and squash bugs attack seedlings, vines, and fruit. In late summer, these insects can damage the mature fruits.

Harvesting

Harvest can take place 100-120 days after planting. Pumpkins can be harvested whenever they are a deep solid color (orange for most varieties) and the rind is hard. If vines remain healthy, harvest in late September or early October before heavy frost. If vines die prematurely from disease or other causes, harvest the mature fruit and store them in a moderately warm, dry place until Halloween. Cut pumpkins from vines carefully, using pruning shears or a sharp knife and leave 3 to 4 inches of stem attached.

Snapping the stems from the vines results in many broken or missing "handles." Pumpkins without stems usually do not keep well.

Wear gloves when harvesting fruit, because many varieties have sharp prickles on their stems.

Avoiding cutting or bruising pumpkins

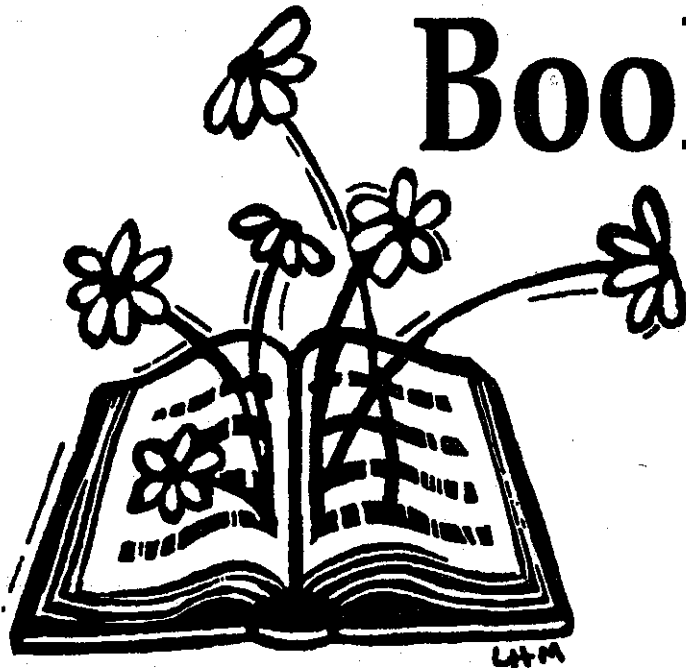
See *Pumpkins*, cont. on p. 3

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Book Review

By Julia Loyall



The Tulip: The Story of a Flower That Has Made Men Mad

By Anna Pavord

New York: Bloomsbury Publishing/St. Martin's Press, 1999, \$35

This beautiful book tells the amazing history of the tulip, both in the author's words and in her extensive collection of illustrations of tulip art from the countries affected by the flower. Pavord is an English writer of gardening books, contributes to several gardening periodicals, and is an associate editor of *Gardens Illustrated* magazine. Her enthusiasm for tulips let her to spend six years in research and travel in Europe and central Asia.

The results of her scholarly work are fascinating: She found species tulips in the wild and traced the impact of "tulip madness" as it progressed through western and northern Europe, documenting her sources in libraries, museums, gardens, and in the art of public buildings.

Tulips occur in the wild only in the East in a narrow band along 40° north latitude, stretching from Ankara, Turkey, through India, southern Russia and mountainous central Asia. Native tulips have not been found in the Western Hemisphere.

The tulip became known in western Europe in the mid 16th century but appeared in the Ottoman Empire in the mid 15th century. Conquering sultans gardened on a massive scale, and tulips were brought in from the wild for cultivation. The Turkish word for tulip, "lale," was written with the same Arabic letters as the name of Allah, and the tulip became a religious symbol. Later the ruling house of Osman adopted it as an omnipresent motif.

The book's illustrations of brilliantly colored, tulip-decorated tiles and ceramics from this period are delightful. Tile walls in Ottoman buildings still standing were often built up from groups of four tiles which fitted together to form a central design of stylized flowers, much as quilt patterns are pieced today.

Tulips depicted in art of this period have rounded bases, narrower waists, and pointed petals flared out at their tips. Later, as hundreds of Istanbul florists competed in breeding tulips to please their sultan, a long, thin, blached and dagger-shaped tulip with needle-pointed petals became the imperial flower, the "Istanbul Tulip." Demands of a succession of rulers for thousands of tulips for their

gardens and revels became more exorbitant through the years. Sultan Ahmed III was so profligate in his celebration of tulip festivals that his people rebelled, and at the end of his reign in the early 18th century, the Turkish tulip obsession abruptly ceased, although the tulip remained a favorite motif in Ottoman art.

Pavord describes how traders, diplomats, and travelers brought tulip bulbs to western Europe in the mid 16th century. The French botanist Carolus Clusius introduced many bulb plants, including tulips, first to his friends and then through his work as director of the Spanish Imperial Garden. Later he moved to Frankfurt, Germany, to advise on a botanical garden and to the University at Leiden in the Netherlands. Through Clusius's voluminous correspondence, tulips and other bulbs he obtained from Turkish friends were spread throughout Europe. Clusius's rarest tulips (which he would not sell) were stolen from his garden in the Netherlands and propagated and distributed widely.

In Europe, interest in plants was high at this time. The wealthy established beautiful gardens and tried to outdo each other with their rare plant collections. Artists were commissioned to make elaborate flower paintings. The Netherlands was already shipping bulbs to other countries — and to Istanbul.

Growers, observing the happy tendency of tulips to produce offspring different from either parent, wondered what produced these changes and developed many strange theories. Some also observed that the highly desirable striping also weakened the plant so that bulbs produced fewer offsets, which made these bulbs more expensive. Some English growers bankrupted themselves by acquiring the most exotic tulips for their gardens. Later, tradesmen took up the tulip craze and formed tulip societies, which still have tulip shows.

Tulipomania struck the Netherlands. Growers speculated in the tulip trade, and fortunes were made and lost. The tiles of the times reflect the love of the plants. Paintings of tulips by master painters were cheaper than a single tulip bulb. Examples of paintings of tulips amongst other flowers accompany Pavord's account of the madness that

See Tulips, continued on page 3

Tulips, continued from page 2

consumed Dutch growers until the government began regulating tulip prices. This frenzied period ended with many fortunes lost by speculators who sold their homes or businesses for a single tulip bulb in hope of enormous profit. In spite of this, the Dutch persevered in their tulip growing and still dominate the worldwide sale of tulips today, shipping billions of tulips and other bulbs to America and around the world every year.

Pavord describes at the conclusion of Part I of her book the research that explains the occurrence of "breaking," the much-desired striping and color changes that had puzzled growers for centuries. In 1928, Dorothy Cayley proved that this is a result of infection with a virus carried by the peach potato aphid, which is often present in warm-temperature gardens with fruit trees, especially peach trees. She also proved that this virus gradually weakens the flower so that it reproduces poorly.

Since landscapers began to value mass plantings and large color patterns in the landscape in the 20th century (i.e., the demand for reliable solid color), high-volume bulb breeders and marketers try to prevent color breaking. Pavord regrets that these bulbs are being used like wallpaper, and research in color breaking still is being pursued by independent breeders.

Part II of "The Tulip" lists and describes species tulips first and then cultivars, with interesting overviews on each area. There follows a chronology of tulip history, which shows the ebb and flow of tulip hysteria across the many nations.

This book should prove to be cautionary to gardeners who may be prone to overstressing their budget; it should also increase understanding of the dramatic effect the tulip has had on history of so many nations. The species and cultivar descriptions should be valuable shopping and identification aids. Beyond that, crafters and artists have a source of ideas aplenty in Pavord's illustrations of flower painting and prints, tile panels, ceramics, silver, tapestry, cartoons, miniatures, and garden designs, all featuring tulips. ♦

Pumpkins, continued from page 1

when handling them. Fruits that are not fully mature or that have been injured or subjected to heavy frost do not keep. Store in a dry building where the temperature is 50-55°F. Do not store in a refrigerator or in a damp place. Moisture causes rapid deterioration.

Selection

Select heavy, unblemished pumpkins that are free of cracks and soft spots and have a deep orange color. Whole unblemished pumpkins can be stored for three to six months.

Roasted Pumpkin Seeds

Don't waste the seeds after cooking your pie or making jack-o-lanterns. Instead roast and salt the seeds for a delicious and nutritious snack. Let the children slosh through the fibers in pursuit of the slippery seeds. It is so much fun.

1 quart water

2 tablespoons salt

2 cups pumpkin seeds

1 tablespoon vegetable oil

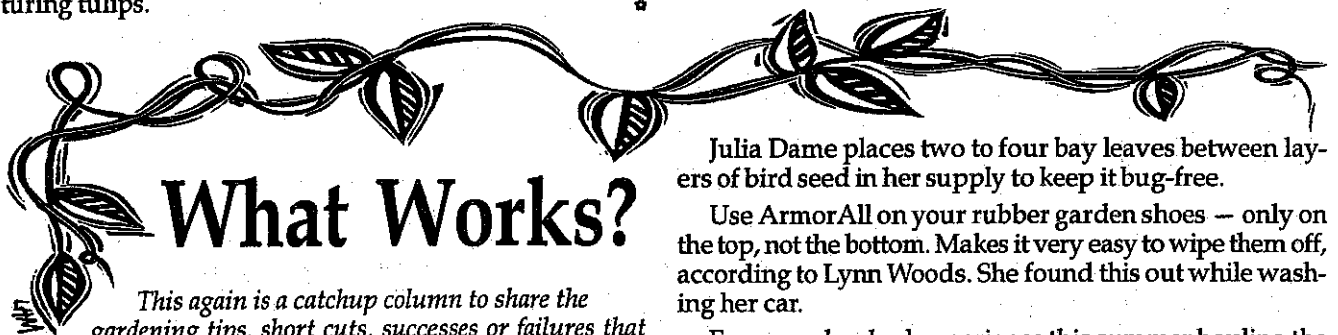
Preheat oven to 250°F.

Pick through seeds and remove any cut seeds. Remove as many of the stringy fibers as possible. Bring the water and salt to a boil. Add the seeds and boil for 10 minutes. Drain. Spread seeds on a kitchen towel or paper towel and pat dry.

Place the seeds in a bowl and toss with oil. Spread evenly on a large cookie sheet or roasting pan. Place the pan in a preheated oven and roast the seeds 30 to 40 minutes. Stir every 10 minutes until crisp and golden brown.

Cool the seeds, then shell and eat or pack in an airtight container or zip-lock bag and refrigerate until ready to eat.

This information is from the Cooperative Extension Service at the University of Illinois at Urbana and from The History of the Jack of the Lantern (<http://www.bconnex.net/~mbuchana/realms/halloween/jack.html>.)



What Works?

This again is a catchup column to share the gardening tips, short cuts, successes or failures that you have continued to submit at the monthly meetings.

Beth brought these two new sources for garden information from the August International Master Gardeners Conference. www.AHS.org/mastergardener will be the national Master Gardener Web Site sponsored by the American Horticulture Society and the Peat Council. It will be up and running by the time you get this newsletter or soon after. <http://aggie-horticulture.tamu.edu> is the web site of the Texas A&M Horticulture Department. It contains lots of good information and links to all the plant societies and to other interest web sites.

Julia Dame places two to four bay leaves between layers of bird seed in her supply to keep it bug-free.

Use ArmorAll on your rubber garden shoes — only on the top, not the bottom. Makes it very easy to wipe them off, according to Lynn Woods. She found this out while washing her car.

Everyone has had experience this summer hauling the garden hose around. Trudy Goolsby says she learned this trick from a television program. I tried it and it works for me too. If you find that when you pull the garden hose out of the neat circle you put it into that it get kinks in it, don't roll it up into circles. Instead, make it into a figure eight. This keeps out the twists that become kinks. ♦

*We've had our summer evenings,
now for October eves!*

— Humbert Wolfe

Calendar And Notes

By Laurie Pierce

Master Gardener Greenhouse Pansy Sale October 2, beginning at 8 a.m. Don't miss this great opportunity to support our MG projects and to get a variety of fabulous plants for your own fall/winter/spring gardens. 666-0759.

The first work date for the native gardens at Wildwood Park for the Performing Arts will be October 2. Sessions are scheduled for every other Tuesday and Saturday: October 5, 16, 19, and 30; November 2, 13, 16, 27, and 30; December 4, 7, and 18. The native garden committee highlights native plants native dogwoods, azaleas, daffodils, and Louisiana iris. 228-4033.

Landscape Fundamentals Workshop given by John Beneke on Tuesdays October 5-November 9, fee \$89. Preregistration required. 666-0759.

Master Gardener training sessions on Wednesdays October 6-November 10 can count for continuing education points. Call Mrs. McKinney by noon on the Monday before, if you want lunch. Cost of lunch is \$6. 340-6650.

Four Seasons Gardening Workshop given by Mary Evans, Saturdays October 9, November 13, March 11 and June 10, fee \$75 for entire workshop or \$20 for individual sessions. Preregistration required. 666-0759.

The next **Pulaski County Master Gardener meeting** will be at 11:30 a.m. October 12 at the state office on University Avenue. 340-6650.

There will be a **Landscaping Construction Workshop** October 13 at the Cammack Campus. The cost is \$40 and includes materials and lunch. Call Janet at 671-2000 or 671-2143.

The City of Little Rock Department of Parks and Recreation will conduct a public meeting to discuss the replacement of trees destroyed in January's tornado in the MacArthur Park and Quapaw Quarter historic districts at

7 p.m. October 14 at Dunbar Community Center, 1001 W. 16th St. 371-4770.

Master Gardeners in Sebastian County will help put on a **Festival of Flowers** October 16-17 at Westark Community College and Creekmore Park, both in Fort Smith. Janet Carson will speak about perennials and headline eight speakers on Saturday, and the Fort Smith Rose Society will conduct a rose show. A butterfly conservatory will highlight Sunday activities at

Creekmore Park, and self-guided tour will feature trees maintained by Master Gardeners in the park. A residential tour will showcase six to eight local homes. (501) 785-5492.

The Missouri Botanical Garden, St. Louis, will conduct the **Orchid Society of Greater St. Louis Show and Sale** October 16-17 and the **Mid-America Regional Lily Society Fall Bulb Sale** October 23-24. Both events are free with regular garden admission: \$5, \$3 for ages over 65 and under 13. (800)

642-8842.

Perennial Border Gardens Workshop given by Mary Evans Tuesday evenings October 19-November 16, fee \$89. Preregistration required. 666-0759.

Soil Preparation Workshop given by Mary Evans Saturday October 30, \$20. Preregistration required. 666-0759.

Mark Your Calendar

There will be a **reception for the 1999 class of Master Gardeners at the Pulaski County Master Gardeners Meeting** November 9.

Pulaski County Master Gardener Winter Holiday Party will be Tuesday, December 7, at St. James Methodist Church. Details later.

The **International Master Gardeners Conference** will be held May 22-26, 2001, in Orlando, Florida. *

Remineralizing Soil

By Annette Hurley

To grow healthier trees, bigger vegetables, and greener lawns, the soil needs to be enriched. Instead of picking up a chemical that treats the symptom, reach for something that will help solve the problem and give life back to the soil. Like the human body, the soil has a wondrous capacity to heal itself, given the proper nutrients. We constantly take nutrients out of the soil, and fall is a great time to remineralize the soil by adding rock dusts and powders. Rock dusts increase the energy levels of bacteria and add minerals.

By adding calcium carbonate lime in the fall, the calcium works over the winter months to decrease the calcium deficiency in soil. I do not recommend a hydrated or dolomitic lime, as they heat up the soil and kill microorganisms. Weeds such as crabgrass, henbit, and chickweed are indicators of a calcium deficiency. Soft rock phosphate is another wonderful form of calcium and adds the needed phosphorus, though it may not be as easy to locate in stores. Rock powders include limestone, granite, gypsum, lava rock, black rock phosphate, volcanic powders, and greensand. These minerals will increase the energy levels, trace minerals, and water-holding capacity of the soil.

See Soil, continued on page 8

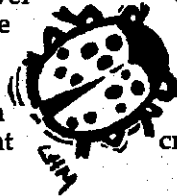
October Checklist For Gardeners

By Libby Thalheimer

Cover - Up

Clean out old mulch before adding new mulch to prevent fungal diseases next spring. Wait until hard freezes are forecast to mulch heavily for the winter.

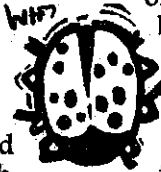
To keep soils from drying out or washing away during winter, plant a cover crop now in unused parts of the vegetable or cutflower garden. Legumes such as hairy vetch, crimson clover, and sweet clover trap nitrogen from the air, which then becomes available for subsequent crops after the legumes are turned under.



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 one teaspoon of a slow-release fertilizer around each plant.

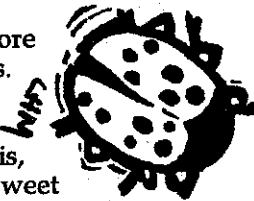
Plant belamcanada, chionodoxa, colchicum, crocus, daffodils, eremurus, galanthus, garlic, hyacinths, iris, lilies, leucojum, muscari, oxalis, scilla, shallot bulbs, Spanish bluebells, star flower, Virginia bluebells, windflowers, winter aconite



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

Divide perennials to restore vigor to old and crowded plants. Black-eyed susan, chives, coneflowers, coreopsis, shasta daisies, hemerocallis, Siberian iris, peonies, phlox, woody druff, and yarrow need to be divided every three to four years. Tarragon should be divided yearly. Dig tender bulbs such as caladium, fennel, and gladioli. 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.



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 have been shown to be of no benefit and may be detrimental to the establishment of trees and shrubs. 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.

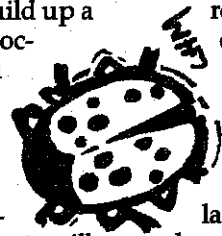


Turf Question

If you have been fertilizing your lawn this year, you do not need to use a winterizer fertilizer (one with no nitrogen, only phosphorus and potash). You do need winterizer fertilizer if your lawn is severely damaged/stressed this year, if you have not been fertilizing regularly, or if you have new sod. Keep the leaves raked! Turf grass needs sunlight as growth slows before dormancy.

Who Is Bugging You?

Insects can build up a resistance to a particular chemical, so occasionally rotate the use. Since insecticides lose their effectiveness when carried over from year to year, it is easy to rotate your chemicals.



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°). Fall webworms look unsightly, but do little damage to trees. Control with Malathion, Diazinon, or Cygon.

As the temperatures cool, horticultural oil should be sprayed to control scale on fruit trees, camellias or other shrubs. Control white peach scale with oil such as Volck, ornamentals with Cygon. Treat fruit trees again with a dormant oil after fall leaf drop.



Spray azaleas for lacebugs with IStox, Cygon or Malathion. Early fall is the worst time for infestation.

October Bloomers

Abelia, ageratum, sweet alyssum, asters, barberry, beautyberry, bittersweet vine, buddleia, ornamental cabbage, calendula, camellias, cannas, celosia, chelone, Chinese pistache, chrysanthemums, clerodendron, crape myrtle, dahlias, dianthus, dogwood, euonymous, eupatorium, four o'clock, gaura, ornamental grasses, gums, hibiscus, kale, kerria, lantana, larkspur, lobelia, maples, marigolds, Mexican sage, nierembergia, sweet peas, petunias, poppies, roses, rosehips, salvia, scabiosa, snapdragon, solidago, stock, torenia, tricyrtis, verbena, viburnums, viola, Virginia creeper, wisteria, and zinnias. *



Hints And Tips From The Current Literature

Planting in a layer of gravel seems strange to those used to planting in soil. But pebbles retain moisture, drain well and act like mulch to protect plants and encourage growth. Start with a weed-free plot of soil. Use a two to three inch layer of 1/2 to 3/8-inch pebbles. Creepers, self-sowing, or every day flowering annuals and herbs will make this home. Water when plants indicate dryness. Fertilize as usual.

Family Circle Easy Gardening, Summer 1999.

Neil Diboll's Prairie Nursery catalog (1-800-476-9453) provides detailed advice for growing a prairie on all types of sites. In this article, his planting secrets and "recipe" are given for a back-yard version. He provides instructions for preparing the site and a list of prairie plants for different types of soil.

Garden Design, October 1999

A number of perennials can be propagated from pieces of their roots. Cuttings from roots should be done when the plants are dormant – poppies in summer after blooming; bear's breech, globe thistle, Japanese anemone, mullein, phlox and many others in the autumn and winter. Choose large healthy plants. Gently pick out roots as thick as a pencil near the root crown. Cut into 2 to 3 inch-long pieces. There is a polarity – keep track of the upper end by making a horizontal cut at the top and a slant cut at the base. Fill a 6-inch-deep pot with a seed-starting mix, make a hole for each cutting about 1 inch apart, and cover the top with a 1/2 inch layer. Cover the pot with plastic film to retain moisture. Transplant when the new plants are several inches tall.

Horticulture, July/August 1999

An article on how fruits, including vegetables, form gives a good overview of the botanical aspects of the parts of the plant and fertilization. The seeds that form are protected by fleshy tissue known as fruit. There is a period of natural thinning of the fruit a plant will produce to enhance the chances for some fruit/seeds to survive. The critical period for the gardener to increase fruit retention or size is during the period of fruit set. Special care is needed to provide sunlight, water and proper fertilization. If larger and better quality fruit is desired, removal of some fruit has the greatest impact on some remaining fruit. In addition to removing small fruit, also remove abnormally large fruit and damaged or diseased fruit.

Taunton's Kitchen Gardener, August/September 1999

One of the causes of yellow leaves on trees and shrubs could be alkaline soil. It affects plants by not only increasing the availability of some soil nutrients, but holding some back. Having an alkaline soil isn't a problem if you choose plants that like it. Tables of alkaline-tolerant trees and shrubs, including their characteristics and range, are provided.

Southern Living, September 1999

The greenish stuff that clings to the bark of trees is a grouping of harmless organisms called lichens. A lichen is composed of an alga and a fungus. The alga is usually green and carries on photosynthesis. The fungus provides structural support and helps absorb nutrients. Lichens come in a variety of colors. In dense shade, they are slow growers but in sunlight they grow fast. Having lichens in your garden is a good sign,

as they are very sensitive to air pollution. Another bonus is beauty. Tree trunks with lichens have a depth and character. Lichens cannot be established manually, the colony just happens.

Taunton's Fine Gardening, October 1999



Conversation Between God And St. Francis

"Winterize your lawn," the big sign outside the garden store commanded. I've fed it, watered it, mowed it, raked it, and watched a lot of it die anyway. Now I'm supposed to winterize it? I hope it's too late. Grass lawns have to be the stupidest thing we've come up with outside of thong swimsuits! We constantly battle dandelions, Queen Anne's lace, thistle, violets, chicory, and clover that thrive naturally, so we can grow grass that must be nursed through an annual four-step chemical dependency. Imagine the conversation The Creator might have with St. Francis.

"Frank, you know all about gardens and nature. What in the world is going on down there in the Midwest? What happened to the dandelions, violets, thistle, and stuff I started eons ago? I had a perfect, no-maintenance garden plan. Those plants grow in any type of soil, withstand drought and multiply with abandon. The nectar from the long-lasting blossoms attracted butterflies and honeybees and flocks of song-birds. I expected a vast garden of flowers by now. But I see are these green rectangles."

"It's the tribes that settled there, Lord. The Suburbanites. They started calling your flowers 'weeds' and went to great extent to kill them and replace them with grass."

"Grass? But it's so boring. It's not colorful. It doesn't attract butterflies, birds and bees, only grubs and sod worms. It's temperamental with temperatures. Do these Suburbanites really want all that grass growing there?"

"Apparently so, Lord. They go to great pains to grow it and keep it green. They begin each spring by fertilizing grass and poisoning any other that crops up in lawn."

"The spring rains and cool weather probably make grass grow really fast. Must make the Suburbanites happy."

"Apparently not, Lord. As soon as a little, they cut it — sometimes twice a week."

"They cut it? Do they then bale it like hay?"

"Not exactly, Lord. Most of them

it in bags."

"They do they sell pay to throw it straight. They grass so it will And when it does they cut it off and throw it away?"

"Yes, sir."

"These Suburbanites must be re-lieved in cut back up the slows the them a lot to see a col-

"You this Lord. grow-

bag it? Why? Is it a cash crop? it?"

Just the opposite. They away."

get this fertilize grow. grow, pay to

banites must be re-the summer when we on the rain and turn heat. That surely growth and saves of work."

aren't going believe When the grass stops ing so fast, they drag out hoses and pay more money to water it so they can continue to mow it and pay to get rid of it."

"What nonsense! At least they kept some of the trees. That was a sheer stroke of genius, it I do say so myself. The trees grow leaves in the spring to provide beauty and shade

in the summer. In the autumn they fall to the ground and form a natural blanket to keep moisture in the soil and protect the trees and bushes. Plus, as they rot, the leaves form compost to enhance the soil. It's a natural circle of life."

"You better sit down, Lord. The Suburbanites have drawn a new circle. As soon as the leaves fall, they rake them into great piles and have them hauled away."

"No! What do they do to protect the shrub and tree roots in the winter and keep the soil moist and loose?"

"After throwing away your leaves, they go out and buy something they call 'mulch.' They haul it home and spread it around in place of the leaves."

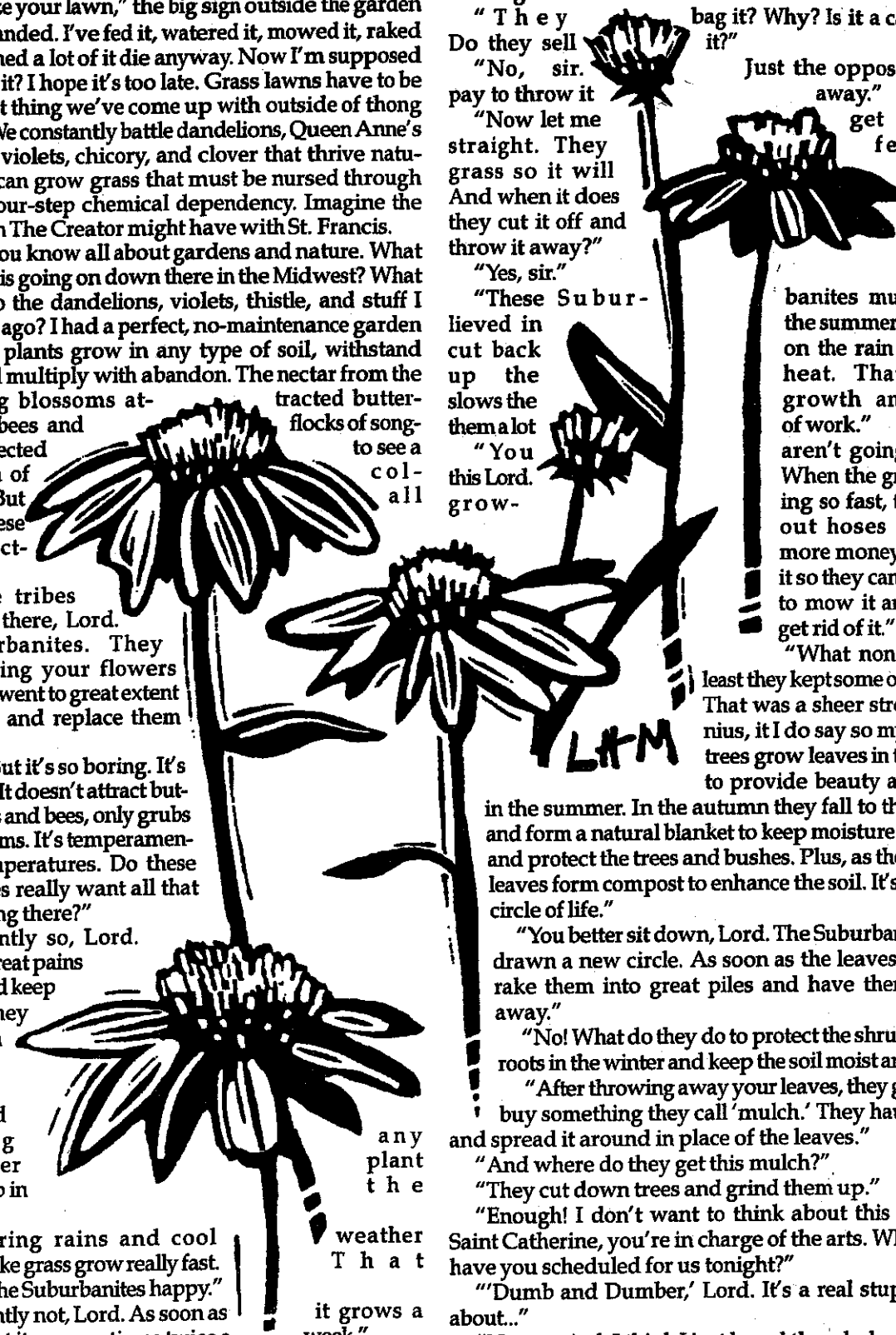
"And where do they get this mulch?"

"They cut down trees and grind them up."

"Enough! I don't want to think about this anymore. Saint Catherine, you're in charge of the arts. What movie have you scheduled for us tonight?"

"'Dumb and Dumber,' Lord. It's a real stupid movie about..."

"Never mind. I think I just heard the whole story." ♦



Congratulations To New Officers!

At the September meeting the following were elected for the year 2000 and will take office at the October meeting.

President – Martha Jones
1st Vice Pres. – Carolyn Newbern
2nd Vice Pres. – Suellen Roberts
Secretary – Sandy Harrison
Treasurer – John Prather



New Column Under Construction!

By Lynn Woods

Beginning in November, we will feature our Pulaski County Master Gardeners in a column entitled "LOW PROFILE" (since our interests are at the garden level).

A gardener will be chosen each month at random to be profiled. A biography sheet will be filled out and an article about you and your interests in the garden will be submitted. We will get your permission to profile you in the monthly article and, if you decline, we'll choose another gardener. This could be a fun way to learn more about our fellow gardeners. *

Spread The News!

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

Please provide your information to us by October MG meeting if you want it published in November. You may bring it to the meeting. You may: mail it to Beth. Call Rose Hogan at 374-9429 or e-mail her at rhogan@aristotle.net. Call Beth Phelps or Mrs. McKinney at 340-6650. Or call Cheryl Kennedy at 753-8192, fax her at 753-6305, or e-mail her at 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. Contact her before the end of the 25th of October for the November newsletter). *

Statewide Master Gardener Program Advisory Board

An Advisory Board has been formed to help with planning and guidelines as the Master Gardener Program continues to grow. The representatives for the southeast district, which includes Pulaski County, are Gail Northcutt, Arkansas County, and Gerald Andrews, Jefferson County. Martha Jones from Pulaski County will serve as an alternate. If you have suggestions, you can give them a call or drop them a note.

The first meeting of the board was held in August. The discussion included the diversity of size, age, and management of the county programs and the need for advanced Master Gardener training – a train-the-trainer type system. Also discussed was the fact that Extension does not support out-of-county travel for extension agents.

The board decided to form committees to work on the following areas: a start-up manual, i.e. bylaws and guidelines; recruiting and retaining volunteers; project guidelines; public relations; and district training/events.

If you have a suggestion or ideas you would like to share, give your district representatives a call or drop them a note.

Gail Northcutt, 1819 N. Henderson, Stuttgart, AR 72160, home phone (870) 673-1127, SRMCGAIL@aol.com.

Gerald Andrews, 611 East 33rd Ave., Pine Bluff, AR 71601, home phone (870) 536-3627, jefferso@uaex.edu.

Martha Jones, 1117 Bryan St., Little Rock, AR 72207, home 663-2373. *

Trading Post

By Frances Young

Martha Staples, 663-5238, has lily of the valley and azalea.

Gladys Whitney, 663-2828, has two 7 foot tropical hibiscus.

Marge Van Egmond, 224-7632, has obedient plants.

Lou Sanders, 221-9722, has small beautyberry and nandina shrubs.

Billie Massey, 753-7727, has four o'clocks. *

Soil, continued from page 4

Don't forget that compost is Mother Nature's black magic and the best fertilizer for your lawn and garden. It is available in your own yard, and now is the perfect time to build a compost bin if you haven't already.

The rule is: Everything that is alive dies, and everything that dies rots. Compost is the best form of organic matter and an excellent source for recycling waste.

You can add layers of compost to any stressed or diseased spot or mulch bare spots with compost. Compost should be a necessity in your gardening efforts. Use it in the lawn by adding a thin layer of 1/2 to 1 inch each year – the results will be remarkable.

When using minerals over a period of time, plants become healthier, insect-free, stress resistant, and more disease resistant. Mother Nature's reward is bountiful and chemical-free when we practice organic gardening.

Remember – Feed the soil and let the soil feed the plants! *



Master Minutes Staff — 1999

Chair/Editor	Rose Hogan
Co-Chair/Layout	Cheryl Kennedy
Art	Lisa Hanson Mantle
Staff	Lois Clifton
	Nelwyn Davis
	Claude Epperson
	Ann Green
	Annette Hurley
	Julia Loyall
	Linda Murphey
	Gena Norris
	Laurie Pierce
	Phyllis Rye
	Sarah Smith
	Claudia Stallings
	Libby Thalheimer
	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 1998, these volunteers gave more than 7,000 hours of service.

Elisabeth J. Phelps
 County Extension Agent — Agriculture



November 1999

Volume 10 Issue 10

Thought, Mulch – and Groundcovers – Overcome Problem Areas

By Julia Loyall

The struggle of maintaining a lawn in Arkansas may have caused you to yearn for a yard paved with green concrete, but there's a better way – thought, mulch, and groundcovers.

Too much shade for grass? Exposed tree roots? Weeds under shrubbery and perennials? Soil eroding on a slope? Boggy places, rocky uneven land, spots impossible to mow, splash-back on foundations, mud-spattered sidewalks – the right plant in the right place can eliminate all these problems and simplify maintenance.

Start with a soil test; know your pH.

Then comes thought with a paper diagram showing the areas that make mowing a headache and those where nothing to mow will grow.

On your diagram indicate trees and shrubs with circles and draw curving lines around the drip lines of the trees and around the shrubbery, creating beds. Draw around those slopes. Put little stepping stones where you usually walk, and draw a circle for the rocky place that may become a rock garden some day. Decide which area is the most aggravating and start work there. Like the TV gardeners, use a hose to copy the diagram, outlining where groundcovers will work better than grass. Trace the curves of the hose with lime or landscaper's spray.

Select an edging that suits your budget: rocks, edging blocks, brick, utilitarian metal strips or landscape timbers. Landscapers use a sharp tool to dig a little trench several inches deep that will hold in the mulch with the chosen edging to wall off the troublesome areas from the lawn proper. Follow your lines, using gradual curves or wide angles to create beds around trees, shrubbery, or slopes.

Unless you are ready to do immediate planting of your selected groundcover, smother weeds and grass in the new beds with layers of newspaper (or brown bags) and a mulch of shredded wood chips, shredded leaves, or pine needles. The mulch will slowly improve your soil, as it and the buried weeds decompose. This gives you time to establish your ground cover economically.

You can begin with a few plants in a small area and use these to propagate many by division, cuttings, or layering. Seed is also available for most groundcovers.

At planting time, pull away the mulch, cut through the paper, and set out your plant starts, as usual. You will be pleased at the way the mulch holds moisture and improves

soil texture as time goes by. Renew mulch as needed around plants.

If your soil is practically bare, you could set out groundcover starts right away and add mulch after planting. On slopes, stagger the rows of plants to impede runoff, and use mulch that stays put, like ground leaves or shredded wood chips. Steep slopes can be terraced with rocks, timbers, or landscape blocks.

On the rock pile, use mulch to form humus pockets, and use groundcovers for green background for the little alpine you will plant later.

Clipping (or use of the Weedeater) in very early spring will keep overgrown groundcovers like vinca and juniper neat. Pull mulch and groundcovers away from the stems of shrubs to prevent fungal growth and rodent invasion.

Addition of compost in the spring provides enough fertilizer for most of these plants during the growing season. They are not usually fussy about soil. A happy side effect is the accumulation of organic material trapped in your soil by the interlacing leaves and stems of these vigorous plants.

Evergreen groundcovers are the most useful, and many will prosper in shade. Shade lovers which spread by vining or runners like ivies, vinca, and pachysandra expand gradually and do well controlling erosion on slopes. Periwinkle, liriopse and mondo grass tolerate shade and form clumps which hold the soil, increase in size, and can be propagated by division.

Sun-loving *stachys*, or lamb's ear, multiplies rapidly, and its fuzzy white foliage provides landscape contrast. Low-growing *ajuga* spreads by runners, likes light shade, and, as does *stachys*, needs good drainage. The carpet junipers, colorful sedums, and little cotoneaster with its red berries rapidly spread in sunny areas.

Groundcovers can

See *Groundcovers*,
continued on page 8

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Calendar And Notes

By Laurie Pierce

November

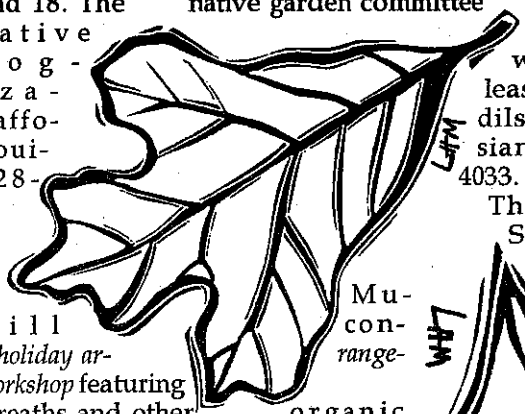
Work dates for the native gardens at Wildwood Park for the Performing Arts will be Nov. 2, 13, 16, 27 and 30; Dec. 4, 7 and 18. The native garden committee plans native dog- az a - daffo- Loui- 228-

will a holiday ar- workshop featuring wreaths and other decorations 1-4 p.m. Nov. 6. The cost is \$25. 324-9685.

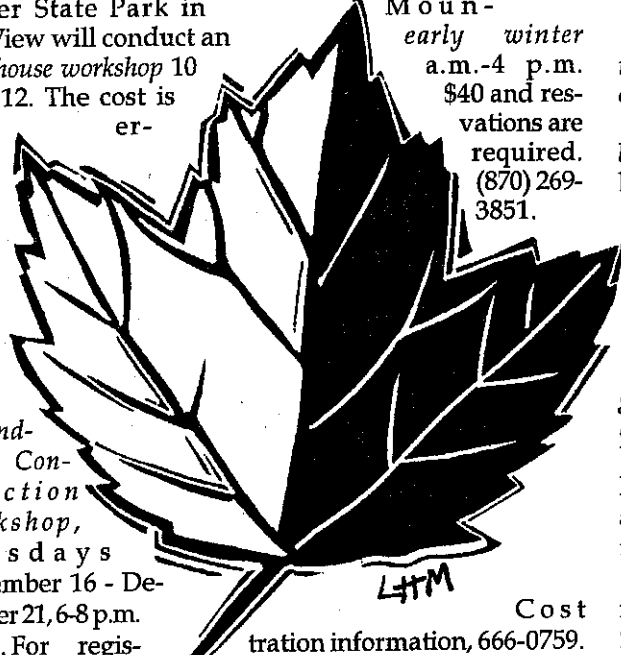
The next Pulaski County Master Gardener meeting will be at 11:30 a.m. Nov. 9 at the state office. A reception for the new class of Master Gardeners will follow. 340-6650.

The Ozark Folk Center State Park in Mountain View will conduct an greenhouse workshop 10 Nov. 12. The cost is er-

Landscape Construction Workshop, Tuesdays November 16 - December 21, 6-8 p.m. is \$89. For regis-



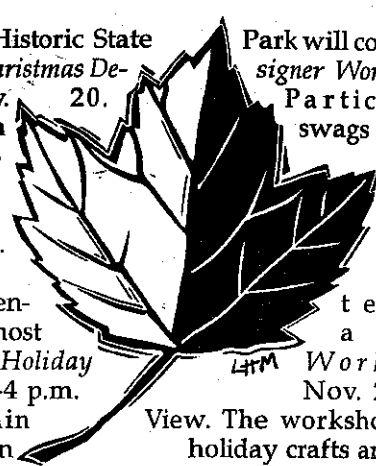
Mu- con- range-



Cost tration information, 666-0759.

Old Washington Historic State Park will conduct its fifth annual Christmas De- shop 10 a.m.-2 p.m. Nov. 20. Participants make their own wreaths and get to take home their creations. The cost is \$30 and includes lunch. (870) 983-2660.

The Ozark Folk Cen- State Park will host "Herbal Elves Holiday shop" 10 a.m.-4 p.m. in Mountain View. The workshop focuses on recipes and build



Park will con- signer Work- shop 10 a.m.-2 p.m. Nov. 20. Partici- pants make their own wreaths and get to take home their creations. The cost is \$30 and includes lunch. (870) 983-2660.

ter a n Work- Nov. 20

View. The workshop holiday crafts and is designed to creative confidence and inspiration using plant materials from one's own garden and environment. The cost is \$40 and includes all

materials. Reservations are required. (870) 269-3851.

December

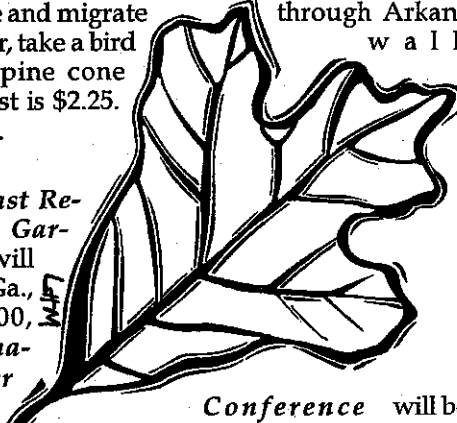
The Greenwood Garden Club Holiday House Tour will be Dec. 5 and feature historic homes and businesses decorated by the garden club with fresh flowers, fruits and greenery. Admission is \$3. (501) 996-6357.

The Pulaski County Master Gardener Winter Holiday Party will be Dec. 7 at St. James United Methodist Church, Little Rock. 340-6650.

Parkin Archeological State Park will conduct a winter bird workshop 10 a.m.-2 p.m. Dec. 11. Learn about birds that reside and migrate through Arkansas each winter, take a bird and make a pine cone feeder. The cost is \$2.25. (870) 755-2500.

2000, 2001 The Southeast Regional Master Gardener meeting will be in Athens, Ga., May 14-17, 2000, and the International Master Gardener

Conference will be in Orlando, Fla., May 22-25, 2001. Call Janet at 671-2000 for more information.



November Checklist For Gardeners

By Libby Thalheimer

Cold Protection

- 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 come in contact with the leaves.

- Protect the grafts of tender young fruit trees by wrapping with towels or with newspaper about 10 sheets thick.

Cover-Up

- Wait until the first hard freeze to apply mulch. Mulch will keep the soil an even temperature and prevent alternate thawing and freezing. Dead stalks left in the garden provide choice locations for insects and diseases to overwinter. Clean out old mulch and other debris before adding new mulch to prevent fungal diseases next spring. 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. Cut back frost-nipped perennials now, but leave 2-3 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.

Dig In

- Transplant bachelor buttons, ornamental cabbage, Canterbury bells, English daisies, shasta daisies, daylilies, delphinium, dianthus, forget-me-nots, fox-glove, kale, rocket larkspur, lupines, nasturtiums, pansies, parsley, peonies, phlox, poppies, snapdragons, stock and violas. Place 1 teaspoon of a slow-release fertilizer around each plant.

- 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 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

- 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.

Fertile Ground

- Fertilize trees.
- Winter is a good time to prepare the soil for new beds or add amendments. Whether your soil is clay or sand, it will benefit from the addition of compost, manure, or other organic matter.

- Remember to fertilize pansies regularly all season during any warm spell.

Garden Clean-Up

- 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 an 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 any necessary repairs to cold frames.

Hole Truth

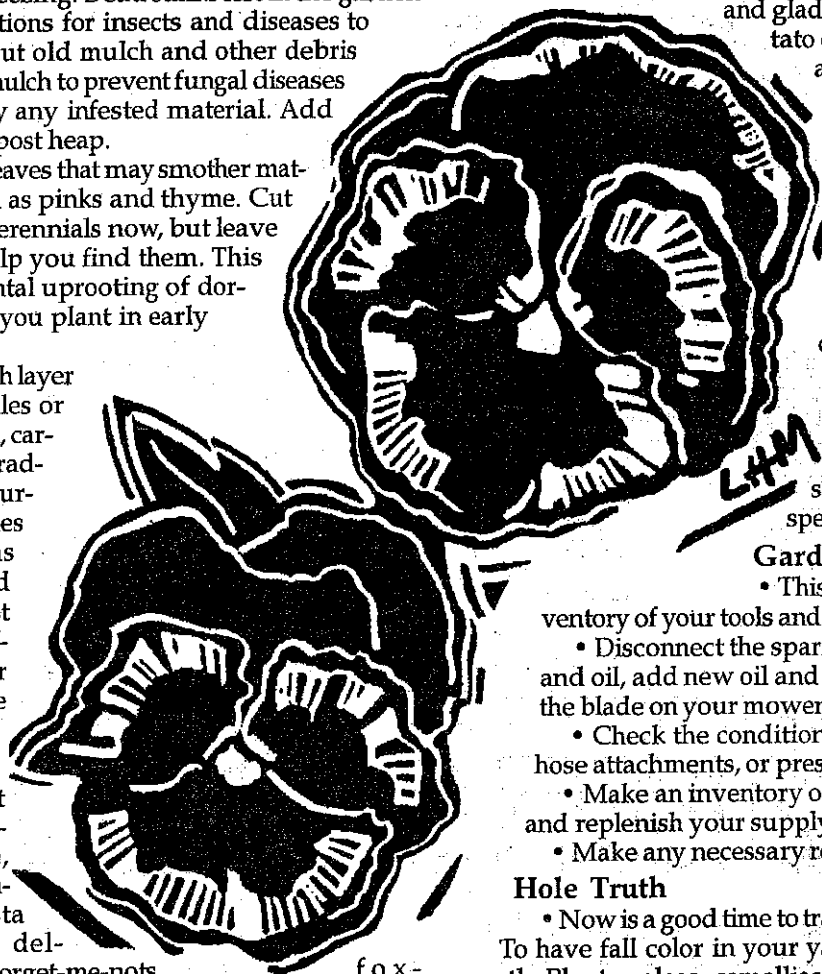
- Now is a good time to transplant trees and shrubs. To have fall color in your yard, check nurseries this month. Plant azaleas, camellias, rose cuttings and other broad leaf evergreens. Soil amendments to the backfill for planting holes has been shown to be of no benefit to trees and shrubs. If you are planting in a bed, it is a good idea to amend the soil in the whole bed.

Houseplants

- Rotate plants to sunny locations so they will stay in good condition through 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 its cup about every

See Checklist, continued on page 4



Checklist, continued from page 3

two weeks; refill when the cup is nearly empty. Keep the 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 fer-



tilizing
y o u r
l a w n
t h i s
y e a r,
y o u

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

LHM

severely stressed, or if your sod is new, or if your grass is fescue.

• Apply Atrazine or Simazine to warm-season grasses for preemergence and/or post-emergence control of annual bluegrass and selected winter annual broadleaf weeds from November through February.

• If thatch exceeds 1/4 inch, use a vertical mower to remove it. Thatch is most effectively controlled by top-dressing the soil with a 1/4-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".

• 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.

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.

November Color

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, and wallflowers. *

Attention Master Gardeners!

Name Tags

Have you broken or lost your name tag? Just need a new one? Order a regular tag for \$5 or a magnetic version for \$7. Call Mrs. McKinney or Beth at 340-6650.

State MG Garden Tour

The State Master Gardener Tour, March 4-7, 2000, will include the Philadelphia Flower Show, Longwood Gardens, Winterthur, and Bartram Gardens. Janet Carson is the host. For more information, call Kruger Travel, 224-8747.

Hospitality Reception For New Members

The Social Committee has planned a hospitality reception for the new members on November 9 at the regular monthly meeting at the State Headquarters. This is to get acquainted with the people who will be our fellow Master Gardeners. Wear your name tag.

Winter Dinner

This evening meeting will be Tuesday, December 7, at St. James Church on Pleasant Valley Drive. The \$5/person will be used for the meat, drink, rolls, plates, utensils, and glasses. The other food will be potluck: If your last name begins with A - C, bring hors d'oeuvres; names D - H bring salads; J - P bring vegetables; and Q - Z bring desserts. Spouses and family are included. Reservations will be required. More information in December "Master Minutes".

New Column

The new column, "Low Profile", will begin in the December "Master Minutes". A member of Master Gardeners will be profiled each month. Names will be drawn, and Lynne Woods will be contacting members to be interviewed. This is voluntary, and if you need to turn her down, we understand. *

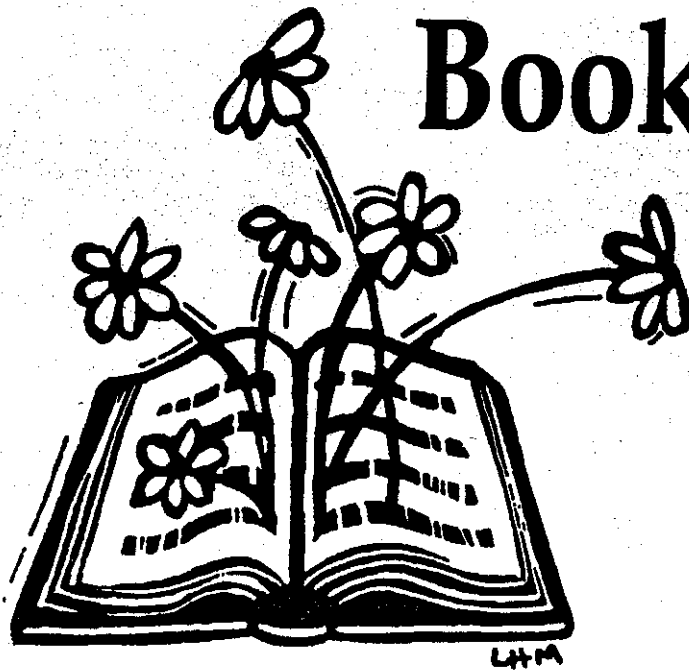
Book Review

By Lois Clifton

Pure Style Outdoors

By Jane Cumberbatch

New York: Stewart, Tabori and Chang, 1998



In her book, *Pure Style Outdoors*, Jane Cumberbatch uses her inimitable flair for simplicity and color and transplants it to the garden, the porch, the patio and all the outdoor rooms of your house.

She bases her approach on the timeless appeal of simple, natural materials and objects that are functional as well as good looking. Included are a host of ideas on making the most of your outdoor space, whether it is a modest city balcony or a roof terrace, a shady courtyard or a rambling country garden.

Be practical and inventive in using hard wearing, old fashioned tools that do the job properly. Remember that color changes with each season, so use them as accents much as you would use a pillow on the inside of your house. Organic, natural, and synthetic surfaces combine to make the garden a living, breathing space. Many surfaces improve with age, like the silvery gray of weathered oak chairs. Underfoot there are the old red brick pavers, smooth terra cotta tiles, flagstones, cobbles, gravel, and soft lawns.

Sheds, lean-tos, and other covered areas are favorites to stuff in everything from rubber boots, stakes and seed trays, to tools. ... And there must be a compost bin of some kind.

Remember almost anything can be a container, and

containers make focal points within a garden and can be moved whenever and wherever you feel like it. One can use the traditional stone or terra-cotta container or galvanized metal, or, for a rustic look, cedar or even plastic. Just be inventive, most anything will do.

When growing flowers, vegetables, herbs or fruit, you do not have to be an expert. It is easy to grow plants in small containers from seed until you gain more knowledge for a large-scale garden. For those just starting, color is a good way to begin. Herbs look beautiful, taste good, and the irresistible smell is a pleasure. Besides, cooking with them is such a wonderful experience.

Toughness and durability are essential qualities for outdoor fabrics and furniture. There are plenty of outlets for cheap, junky furniture that can be left outdoors. However, all expensive pieces should be brought inside once summer is over.

Setting up your outside space is no different from furnishing a room inside. The furniture will largely determine the look. So first decide whether to buy stylish pieces that need to be stored inside during winter, or to look around in the thrift stores for old metal or wooden tables, benches, and chairs that can be left outside to weather and provide exterior details all year round. *Pure Style* is about creating a little bit of magic to give you a wonderful retreat to sit with a book on warm sunshine days, or drink steaming coffee in the crisp morning air.

Planting to create texture and color with climbing plants, or to make a dramatic statement with tall plants such as sunflowers or topiary trees like boxwood, are elements that are vitally important to creating a living visually appealing space.

As well as being informative, *Pure Style Outdoors* has 300 full-size pictures that you can enjoy and find ideas in. Please enjoy this new book, which is in our library. *



Pecans, continued from next page (page 6)

Weed prevention and watering during dry periods are essential for the survival of pecan trees in the first year.

The desired soil pH for pecan trees is in the range of 6.0-7.0. Newly transplanted trees respond very little to fertilization the first year. Therefore, wait until second year to fertilize, to avoid the possibility of root injury.

The second year, if a soil test is not available, apply ammonium nitrate at about 1/2 pound per inch of trunk diameter. Broadcast the fertilizer in a wide band at least 12

inches from the trunk. As the trees grow, enlarge the area of application and move out to include all the area from a little distance from the trunk to slightly beyond the drip line. Fertilization next to the tree trunk increases weed growth. *

Most of this information is excerpted from the University of Arkansas Cooperative Extension Service Factsheet FSA 6039, "Establishing Pecan Trees in Arkansas". Information on the care of older trees is explained in FSA 6040, "Culture and Care of Pecan Trees in Arkansas".

Pecans Provide Delicacies For The Winter Holidays

Pecans halves can be toasted, sugar and spice glazed, or used in Karo pecan pies. Pecans can be chopped up and put into candies, cakes, cookies, ice cream, or special vegetable dishes. Finely ground up pecans are used as a basis for a crust for baked meat.

In Arkansas, you'll see large trees in yards, as well as in groves. They provide not only the delicious nuts but also the shade we seek during our hot summers. The pecan is truly a Southern species.

Pecans are a seasonal crop, so you'll want to store them in your freezer for year-round use. (They'll keep for several years.) Unshelled pecans take up valuable freezer space and they aren't ready for immediate use, so shell them before you freeze them. Unbroken kernels will stay fresh longer than broken ones. Because they are rich in oil, they'll become stale or rancid quickly if they aren't stored properly. The main causes of rancidity are air, moisture, warm temperature, and light. So put them in containers which will avoid these conditions.

Orange Pecans

- 2 cups sugar
- 3 tablespoons orange juice
- 1/2 cup water
- 2 cups pecan halves

Rind of 1 orange, grated

Mix sugar and water in pan. Carefully let boil until it spins a thread (hard ball in cold water). Add orange juice and rind. Let boil 1 minute. Remove from heat; beat until creamy. Add pecan halves. Drop by spoonfuls on waxed paper. You may have to place over hot water before you finish, if it gets too hard.

Soils

The pecan tree is native to Arkansas. Seedling trees are found in most of the river bottoms and delta sections of the state. The pecan tree is deep-rooted and needs fairly large quantities of water throughout the growing season, although it will die in poorly drained or waterlogged soils.

Soils adapted for pecan production should be fertile, well drained, deep, and capable of holding moisture. Alluvial soils, if deep and well drained, are usually satisfactory. Upland soils are usually too shallow and droughty for commercial pecan production. Commercial production of pecans is located mostly in the Mississippi Delta area and in the White, Arkansas, Red, and Ouachita River valleys. There are 27 varieties adaptable to various areas of Arkansas.

Pollination

Pecans have separate male and female flowers. They often mature at different times. Some varieties shed their pollen before their female flowers are receptive. They need pollen from another variety that matures pollen later in the season. Other varieties shed their pollen later, while female flowers are still receptive. Still other varieties do not require another tree for pollination.

Since pecans are wind-pollinated, only a few hours of clear weather with favorable humidity and winds are necessary to pollinate a crop. Several sources of pollen, including native trees, are a good insurance policy for adequate pollination.

Nuts

Nut size varies with the variety, age of trees, size of the crop, and moisture conditions during the growing season until shell hardening. Many of the extra large varieties fill well as young trees but seldom produce well-filled nuts after they are 15 years old.

Early ripening nuts are subject to a long period of predator attack unless harvested early, while very late ripening varieties are ruined by frost some years.

Disease And Insect Susceptibility

Certain diseases and insects affect all varieties of pecans almost equally, while others find only certain varieties to their liking. Some of the more important insects and disease are scab, Phylloxera, bunch disease, and tumor disease. Fungicide and insecticide control on some varieties

is useful in keeping down the first three listed.

Spacing

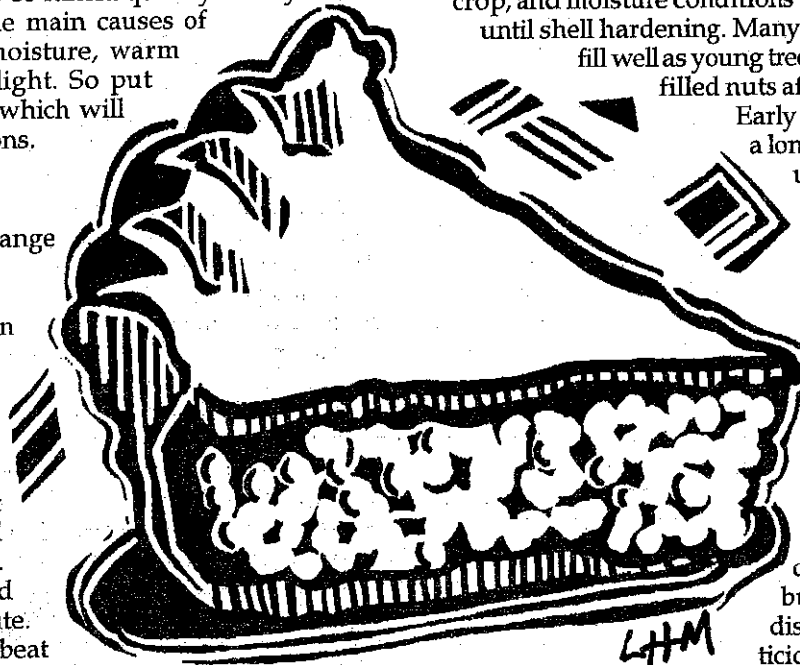
There are several choices of orchard spacing but final spacing after thinning is about 64 feet between trees.

Planting And Care Of New Trees

Trees may be set in late winter or early spring. Trees on heavy soils should be planted in the spring. In emergencies, trees may be held in cold storage and planted after normal bud break.

Wrap newly planted trees with burlap, heavy paper, or treated crepe paper to prevent sunscald, borer damage, and rodent injury.

The tree needs some pruning and training so that it will head at the proper height. Brush off the primary buds from the shoot forming the new trunk to form wide-angled limb crotches.



See Pecans, continued on previous page (page 5)

Hints And Tips From The Current Literature

Grow Your Own Fertilizer

In last month's "Checklist" column, Libby used the term "green manure," which is another way of saying cover crop. There are two types of cover crops usually planted — fava beans and mixes. The mixes for mild climates include Austrian winter peas, bell beans, vetch and sometimes oats. If temperatures drop below 20°, use the Cold Zone Soil Builder that contains hairy vetch and cereal rye.

Sow seed 3 inches deep in rows one foot apart. Cover with soil; irrigate if winter rains aren't adequate to keep the soil moist. After the beans start blooming in spring but before they set seed in pods, cut or mow them down with a heavy-duty mower. Either compost the material in a separate area to mix into the soil later or till it into the soil.

If you till in the cover crop, give it three to four weeks to decompose before planting. Don't use a rotary tiller for mixes that include vetch, as the plants will tangle in the blades.

To check for nitrogen, look at the roots: those white nodules are where fava stores it.

— *Sunset*, September 1999

Bigger Garlic

To increase your garlic yields, use large cloves of garlic for your plantings — the larger the clove, the larger the head to harvest. The size of the head is directly proportional to the amount of leaf growth produced prior to bulb formation, which occurs when days have reached critical length. The best time to plant is late fall. Divide your heads into individual cloves. Space these 5 or 6 inches apart and set them an inch below the surface, making sure that the flat root end is down. Rows should be spaced 1 foot apart. You might see some growth this fall, but well-rooted cloves will go dormant and resume growth in the spring.

In addition to fertilizing the soil at planting time, you should top-dress your garlic plants when they are 6 inches tall. Remove seed stalks. When the foliage begins to yellow, the new heads are mature and the whole plant can be lifted and allowed to dry in a well-ventilated covered space.

— *Horticulture*, September 1999

Plant Hunters

A fascinating article on plant hunters who scour the globe in a quest to make gardens greater describes how botanic explorers have ventured into forested hills and jungled mountains in search of new, unusual plants. Over the years, plant hunting has engaged statesmen, rogues, reputable botanists, and out-and-out adventurers. New-to-horticulture plants are the most obvious, and desired, prizes for a plant hunter. Many explorers are looking for variants of well-known garden plants with flowers in new colors, more bloom, greater cold hardiness, intolerance for drought, or better disease resistance. One of the keys to finding plants abroad that will thrive back home is searching in places that are similar to "home turf" in terms of climate and soil. In the end, very few new finds pan out as good garden plants. But the search sounds intriguing.

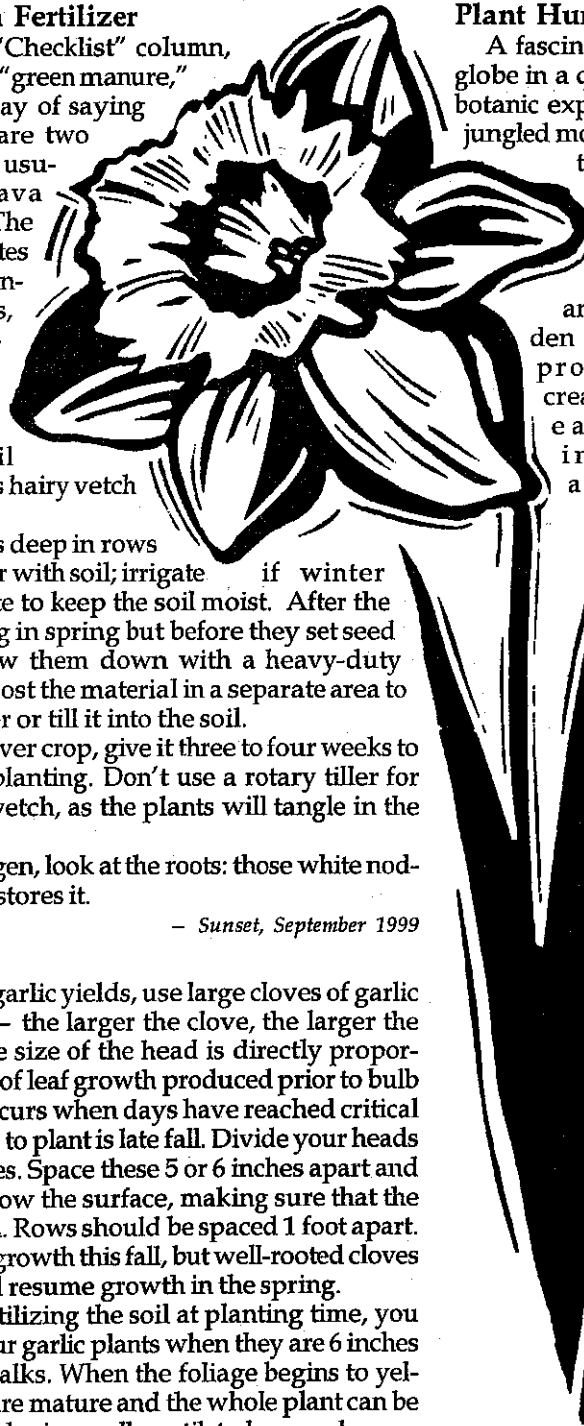
— *Taunton's Fine Gardening*, December 1999

Deer Deterrents

Deer can be a serious problem for country gardeners, and the animals have made their way into suburbs too. Their diet varies widely, depending on the time of year and what is available. Hungry deer will eat just about anything. Here is a list of plant least favored by deer. *Annual flowers*: ageratum, alyssum, lobelia, marigolds, petunias, snapdragon, and sunflower. *Perennial flowers*: astilbe, bee balm, columbine, coreopsis, iris, peony, purple coneflower, soapwort, veronica, and yucca. *Hardy bulbs*: crocus, daffodil, grape hyacinth, and snowdrops. *Herbs*: basil, catmint, chives, dill, lamb's ears, oregano, rosemary, and sage. *Perennial vines*: bitter-sweet, grape, honeysuckle, trumpet creeper, and wisteria. *Ground covers*: ajuga, ferns, ginger, lily-of-the-valley, and sweet woodruff. *Shrubs*: barberry, boxwood, forsythia, lilac, and spirea. *Trees*: ash, beech, birch, ginkgo, hemlock, honey locust, juniper, and spruce.

The University of Illinois Extension Service compiled this list. Fencing is the best

See *Hints And Tips*, continued on page 8



LHM

deer deterrent.

- Country Home Country Gardens
November 1999

Colorful Arrays

Bulbs can dress up any part of your property with their springtime finery.

Single, soldier-straight rows of bulbs or a single ring of bulbs around a tree are not good garden design. Plant bulbs in odd-numbered clumps for a natural look. If you want to ring a tree, lamppost or mailbox use at least a triple row of bulbs.

Rainbow plantings won't stage a spring display with eye appeal. Focus on plantings with at most three colors - roughly 70% of one shade and 15% of each of the two complementary hues. When you use three colors, one almost always should be white.

- Garden Escape, Fall 1999



Spread The Word!

This is *your* newsletter. If you have a story or photo of interest, or need to tell the general membership something about your committee, etc., this newsletter is your opportunity to reach all Pulaski County Master Gardeners with your message.

For the December/January issue, please provide your information to us by the November MG meeting. You may bring it to the meeting. You may mail it to, or call (340-6650) Beth Phelps or Mrs. McKinney. You may call Rose Hogan at 374-9429 or e-mail her at rhogan@aristotle.net. Or you may call Cheryl Kennedy at 753-8192, fax 753-6305, or e-mail to 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. Contact her before November 25 for the December/January issue. *

be combined to add contrasts of color, texture and height for interesting landscape effects. Shade-loving perennials like lilies of the valley, hostas, and ferns can be used amongst the evergreen groundcover plants. Bulb plants provide color, and their dying foliage will be hidden. Lilies love green around their toes. Daylilies tolerate light shade, multiply rapidly and supply color, height, and erosion control.

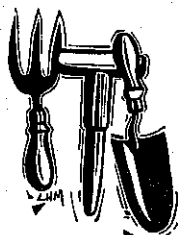
Our libraries have a wealth of groundcover references, old and new, with sources and lists of unusual cover plants suited to our zone and to any situation. The plant descriptions and color photos will inspire you.

The ultimate labor-saver is gardening with moss, and George Schenk's new book, *Moss Gardening*, from Timber Press, tells how. David E. Benner has a video of his garden and the process he used to achieve it called "Made in the Shade". It's available from AVA Productions for under \$40.

If you already have moss, it can be transplanted with plugs, "like hair transplants." It needs to be kept very moist until well established. We're told running a little of your moss through the blender with buttermilk works for propagation. Pour the brew where you want it to grow.

A besom twig broom like the one Old Black Witch rides across the moon is the tool you must use to keep leaves and debris off your moss. This groundcover won't tolerate much traffic. *

*He who cultivates
a garden, and
brings to perfection
flowers and fruits,*



*cultivates and
advances
at the same time
his own nature.*

- Ezra Weston

Massachusetts Horticultural Society, 1845

Trading Post

By Frances Young

Betty Glasscock, 666-2547, wants 'Stella d'Oro' daylilies and variegated liriopse, silvery sun-proof.

Jan King, 758-3446, has bog sage and stuff to make cuttings.

Pat Wallace, 753-8781, has red hummingbird vine seeds.

Breck Campbell, 666-9195, has strawberry bush.

Martha Whitehurst, 868-4517, has American beautyberry bushes.

Connie Ruth Smith, 851-8234, has fuchsia crape myrtle.

Mary Douglas, 225-2584, has three foot tall yellow iris and pink old-fashioned climbing rose.

Cheryl Kennedy's father, Merrill Breeze, 565-1442 has lots of aloe vera he would like to share. *



Master Minutes Staff — 1999

Chair/Editor	Rose Hogan
Co-Chair/Layout	Cheryl Kennedy
Art	Lisa Hanson Mantle
Staff	Lois Clifton
	Nelwyn Davis
	Claude Epperson
	Ann Green
	Annette Hurley
	Julia Loyall
	Linda Murphey
	Gena Norris
	Laurie Pierce
	Phyllis Rye
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	Claudia Stallings
	Libby Thalheimer
	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 1998, these volunteers gave more than 7,000 hours of service.

Elisabeth J. Phelps
County Extension Agent — Agriculture



MASTER MINUTES

December 1999/January 2000

Volume 10 Issue 11

Lily Of The Valley – A Legendary Flower

By Julia Loyall

When I found dainty lily-of-the-valley on my list of valuable ground covers, I knew I had mistreated my six little plants, which are definitely not covering much ground. They like the shade or part-shade of a deciduous tree, and they have that, but "poor soil will produce poor bloom," and that's their problem. They need woody, moist soil rich with humus – peat, leaf mold, compost, and decayed manure. They'll be moving shortly, I promise.

Origin

This *Liliacea* family member is named *Convallaria majalis*, partly from *Convallis* meaning a valley, a natural habitat. *Majalis* may refer to bloom time in May, or the Roman goddess of fertility, Maia. They are a genus of a single species, native in the British Isles, northern Europe and North America, not found in the wild in Arkansas.

Description

The plant has a scaly, rhizomatous rootstock that sends out underground shoots called "pips," which develop their own roots and are easily separated. They develop two elliptical, 8-inch-long, dark green leaves with parallel veining. The leaves enclose a one-sided raceme 8 to 12 inches tall, from which hang the bell-like, 1/4-inch white flowers. The flowers have six short, recurved lobes and a delightful fragrance. When the plants are doing well, seeds are contained in round, red berries.

Convallaria majalis has the common pure white bells. *C. rosea* shows off with double white flowers. *C. prolifans* shows off with double white flowers.

Culture

With excellent moist woody soil, *Convallariae* should flower and multiply even in deep shade. Addition of fertilizer or compost will foster bloom. Mushroom compost would be ideal, especially in late fall.

These plants are best in USDA Zones 2-7 and don't do well in warmer climates. They prefer an acid soil, pH 4.5-6.0

Plant in fall or early spring, 3 to 6 inches apart. Plant pips

with the growing point 1 inch deep and roots about 3 inches down. Whether planted in spring or October, the lilies will bloom the following spring. Imported rhizomes should be inspected carefully for fungus damage, which will eventually kill them. A leaf spot disease occurs infrequently and can be treated with a fungicide spray and re-planting in fresh soil.

In

late summer, foliage may be faded. Late-blooming plants like *Lycoris* among the lilies help disguise this.

Insects rarely bother *Convallariae*.

Pollination is by bees or perhaps moths and butterflies.

Pick the sprays by gently tugging away from the rootstock. Pick only one of the two leaves to ensure better bloom the following year.

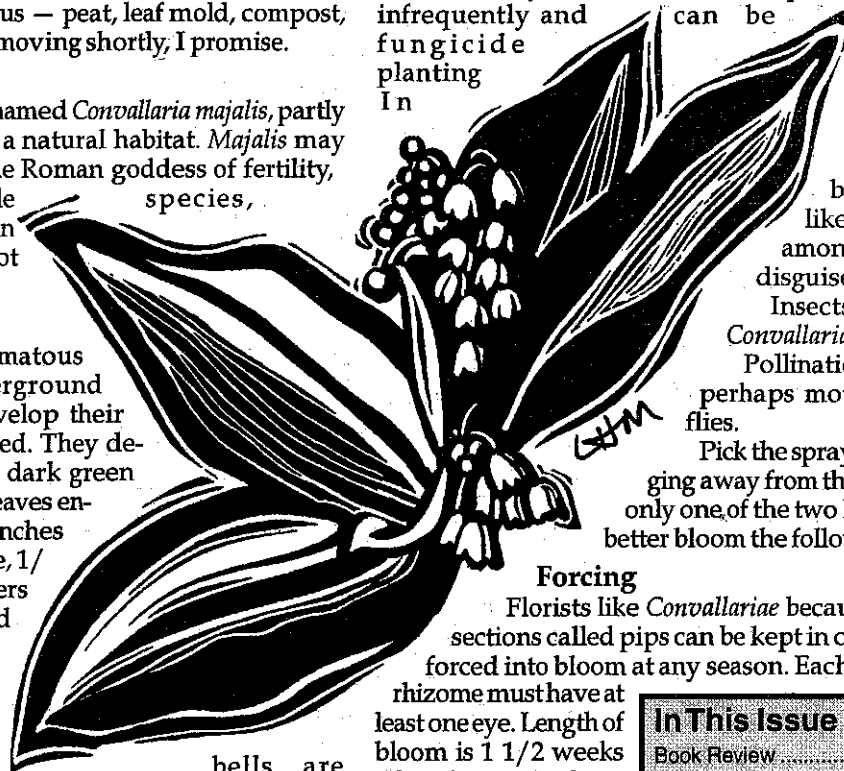
Forcing

Florists like *Convallariae* because the rhizome sections called pips can be kept in cold storage and forced into bloom at any season. Each segment of the

rhizome must have at least one eye. Length of bloom is 1 1/2 weeks when forcing and can be prolonged to five months by forcing the pips at intervals.

The rhizomes can be forced in water but cannot then be reused because their store of energy has not been renewed.

See *Lily*, continued page 2



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Lily, continued from page 1

Dig 6 or 10 pips from your own patch or buy them in the fall when they're dormant. Pot in a bulb pan and leave in a dark, cool place until a few weeks before you want them. Then put the pot in a saucer of water to ensure humidity and place in a sunny window with temperature between 65 and 70°. They'll flower in a short time. When they're spent, return them to their place in the garden, with their soil, without separating the rhizomes.

Propagation

Late summer is best. Dig up the plants, separate into pips, and replant in fresh woody soil.

Convallaria can be raised from seed. Collect fully ripe seed in midsummer. Hang the berries upside down in a paper bag if still attached to the stem. Sow within a week. *The Propagator's Handbook* by Peter Thompson suggests using 2-1/2 inch square pots filled 2/3 full with potting compost and topped with vermiculite to about 1/4 inch below the pot rim. Label your pots. Sow the seeds on the vermiculite. Lightly bury with a pointed dibbler. Water heavily, using a fine rose on a watering can. Cover the pots with polystyrene (clean plastic meat tray or plastic ceiling

tile) and germinate on a heated bench, or place in a cold frame.

Prick out the seedlings as soon as they can be handled, to give them space to develop. Plant in 4-1/2-inch square pots. Stabilize the pots by packing into trays. Plant outdoors in early spring.

Trivia

A legendary name was Our Lady's Tears, because the tiny white bells may have looked like tears, from afar. A folktale told that the flowers emerged from drops of blood from a dragon slain by St. Leonard in the Sussex woods. And an early 20th century bride might not have felt properly married without fragrant lilies-of-the-valley in her wedding bouquet.

Important:

The berries and bulbs of *Convallaria* are extremely poisonous, with cardiac effects. Don't put the flowers in your salad.

Leaves of the wild plant have been used medicinally for diuretics, emetics, purgatives, and cardiac tonics. The fragrance is used in French perfumes, but oddly not for lily-of-the-valley perfumes, which are synthetic. *

Calendar And Notes

By Laurie Pierce

December

Work dates for the native gardens at *Wildwood Park for the Performing Arts* will be December 4, 7, and 18. The native garden committee plans native grasses, dogwoods, azaleas, pines, daffodils, and Louisiana iris. 228-4033.

The *Greenwood Garden Club Holiday House Tour* will be December 5 and features historic homes and businesses decorated by the garden club with fresh flowers, fruits, and greenery. Admission is \$3. (501) 996-6357.

The *Pulaski County Master Gardener Winter Holiday Party* will be December 7 at St. James United Methodist Church, Little Rock. (No meeting at the state office this month.) 340-6650.

The *Nature Conservancy* will thin trees at the *Terre Noire Natural Area* near Arkadelphia at 9 a.m. December 11, and volunteers can take home a cedar Christmas tree. (501) 663-6699.

Parkin Archeological State Park will conduct a *winter bird workshop* 10 a.m. - 2 p.m. December 11. Learn about birds that reside and migrate through Arkansas each winter, take a bird walk, and make a pine cone feeder. The cost is \$2.25. (870) 755-2500.

2000

Thursday, January 20, will be the first of the *Today's Garden with Janet Carson* series on AETN at 6:30-7 p.m.

Future programs will be on the second Friday of each month at the same time.

The Ozark Folk Center State Park in Mountain View will conduct an *Organic Gardening Workshop* on January 22. The cost is \$40, and preregistration is required. (870) 269-3851.

Pulaski County Master Gardener Tour to Dallas in Bloom, April 7-9.

Call Kruger Tours for more information. 223-8851.

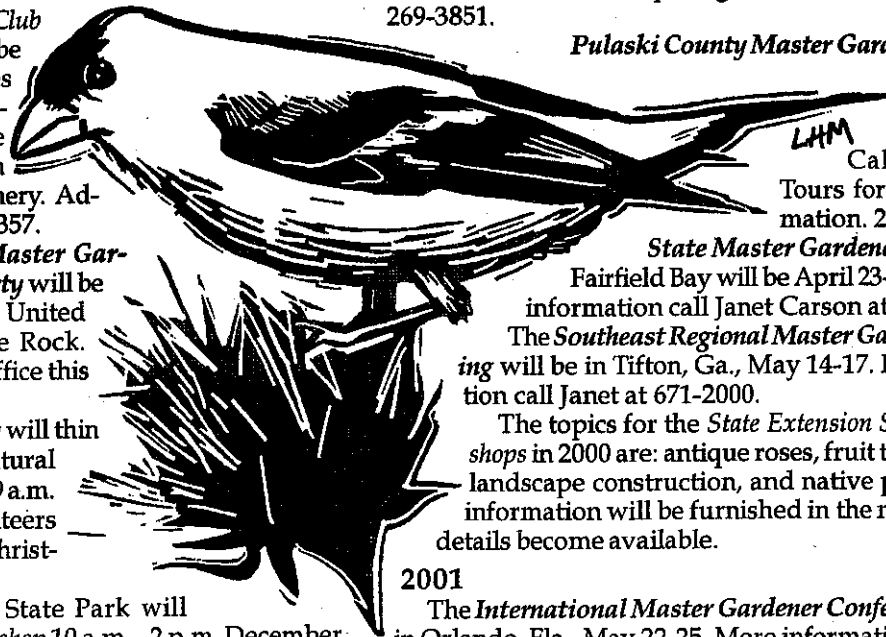
State Master Gardener Meeting at Fairfield Bay will be April 23-25. For more information call Janet Carson at 671-2000.

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

The topics for the *State Extension Service Workshops* in 2000 are: antique roses, fruit tree pruning, landscape construction, and native plants. More information will be furnished in the newsletter as details become available.

2001

The *International Master Gardener Conference* will be in Orlando, Fla., May 22-25. More information available soon, but mark your calendar now. *



*A gardener is
master of the ephemeral.*

— Arnaud Maurierex

December/January Checklist For Gardeners

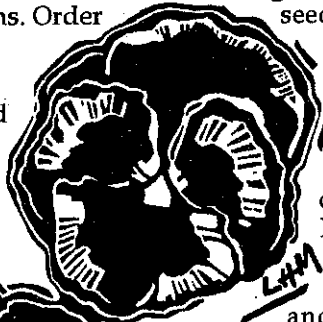
By Libby Thalheimer

Water regularly, especially in cold weather and before a heavy freeze. Don't saturate plants; they just need to be moist.

If you can't garden now, you can plan for next season. Plan changes, additions, or corrections to your garden. Garden catalogs and seed books are a good source for hard to find items. Order seed for early planting.

Clean Up

Remove dead other debris. De-infested mate-the rest to your heap. fallen grass Cut a l s



stalks and stroy any rial. Add c o m p o s t R e m o v e leaves that s m o t h e r and plants.

back frost-nipped perenni- now, but leave 2- to 3- inch stalks to help you find dormant crowns when planting in early spring. December is an ideal time to weed out old or ailing plants that are not

worth saving.

This is a good time to take inventory of your tools, mower, spraying equipment, hose attachments, or pressure sprayers. Clean, oil, repair, and sharpen them before putting them away for the winter. Restock flats, stakes, and labels. Make necessary repairs to cold frames.

Cover Up

Consider using pine needles for mulch to cover tender plants and dress up bare areas in your yard. 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, if this was not done at the time of planting.

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 newspaper about 10 sheets thick.

Dig In

Plant tulips early in December. After Christmas, stock up on amaryllis bulbs. Place potted bulbs in a warm, sunny spot, and water sparingly until growth starts. Bulbs should

bloom by Valentine's Day.

Prepare soil for new beds by adding compost, manure, or other organic matter.

Trees, 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*).

Fertile Ground

Apply lime to the lawn, if needed, in December or January. In mid-January, fertilize trees. Remember to fertilize pansies regularly all season during any warm spell.

If you are growing cover crops, consider turning them 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.

Houseplants

Keep plants in sunny locations so they will stay in good condition through winter. Remember, dry heated air will damage the leaves so keep away from vents. Check plants weekly to ensure the soil is moist.

Bromeliads thrive indoors with minimal care. Keep soil moist, but not soggy.

Root a branch of *Mahonia*, or a gold-flecked variety of

Aucuba, in a large bottle of 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.

Sow What

Start broc- seeds in- for trans- weeks later. January is the poppies and

coli and cabbage doors in January planting 6 to 8 The latter part of ideal time to plant sweet peas.

Who's Bugging You?

Use Atrazine or Simazine on warm season turf grasses for pre-emergence and/or post-emergence control of annual bluegrass and selected winter annual broadleaf weeds from November through February. Remove/control thatch with a vertical mower. Control thatch by top-dressing turf with a 1/4-inch layer of topsoil.

See Checklist, continued on page 7

Projects In Metamorphosis

By Rose Hogan, with Project Chairs

Mother Nature and man have placed extra challenges in some Master Gardener projects this year. The following capsules are from the project chairs.

Contemplation Garden

Lisa Mantle reports that (in addition to the January 21 tornado damage) this Garden has been undergoing changes for the past year and a half. Committee members dug out the spreading *Liriope* that was taking over the den. The additional planting space is used for colorful perennials and annuals, and the group has added a rock border.

NLR Water Works

Our newest project, chaired by Eddie Beasley, is the Park Hill Water Company, 3427 Magnolia Street, North Little Rock. The Mediterranean-style building, with its red tile roof and cast concrete decorative detailing, was built in 1938 and was occupied by the Water Company for Park Hill and North Little Rock until the 1970s, when the office moved and the building was boarded up.

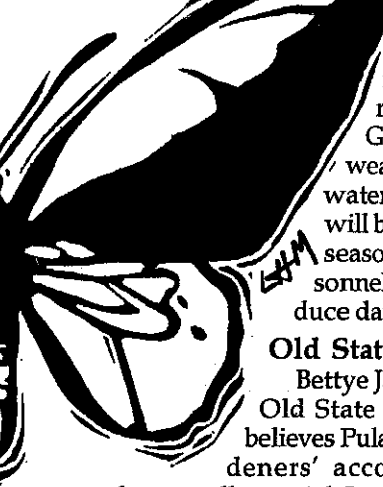
The North Little Rock History Commission began renovation in 1998, and the Master Gardener Program accepted it as a project in the spring of 1999.

Arkansas Arts Center

Suellen Roberts describes the Arkansas Arts Center as a container gardening project. The committee tends the inner and outer courtyards and the entrance and curbside planters. Since the Arts Center sits on city property, the plants, fertilizer, and mulch are provided by the City of Little Rock greenhouse. The past two summers' heat and drought have presented a real challenge — the containers

demanded a "two-a-day" watering schedule. Currently, the committee is working around the Arts Center expansion construction crews. Upon completion of the present renovation, the committee looks forward to participating in the new landscape.

Governor's Aletta



Mansion

Newell says the January 21 tornado provided needed sunlight for project vegetables by removing trees at the Governor's Mansion. Dry weather forced additional watering, and the committee will build up the soil this next season. Mansion kitchen personnel gather and use the produce daily.

Old State House

Bettye Jane Daugherty says the Old State House administration believes Pulaski County Master Gardeners' accomplishments on the grounds are really special. It was late June when landscaping could begin. In addition to planting and caring for the 'New Dawn' roses along the north side of the grounds, committee members used Boston ferns around the fountain, once it was in place and working.

The grounds are so pretty the location has become a favorite site for formal picture making, especially wedding photos.

???????????? Need Hours ??????????????

A master list of projects, with upcoming workdays, is available in the Pulaski County office. Members can call Mrs. McKinney at 340-6650 to verify when their committee is working, and other MGs who need hours can see where their talents are needed.

Master Gardeners In The News

On November 11, the *Sherwood Voice* described how Rev. Jack Singleton, pastor of First Christian Church of Sherwood and Master Gardener, is working with students at Oakbrooke Elementary School. Children who have volunteered to be members of a "Green Team" have devised a five-year plan to redesign and brighten the school's grounds. Included in the landscaping schematics will be plants that attract and provide habitat for birds native to the area, and only low-maintenance plants will be used.

The Wednesday, November 17, *Arkansas Democrat Gazette* featured a large photograph of PCMG Pat Wallace

planting pansies at the *Old Mill* in North Little Rock. It stated that Pat and several other members of the Pulaski County Master Gardeners were helping North Little Rock Parks and Recreation employees remove summer annuals, replacing them with winter and spring flowers.

The *Old State House* is slated to appear in a Department of Parks and Tourism advertisement.

Kitchen Gardener, a national magazine, featured a story on the blackberries in the *Cammack Village* fruit project and is to produce another story soon on the site.

Congratulations – And Welcome – To Our Class Of '99



We're delighted to introduce to the rest of our members the Pulaski County Master Gardener Class of 1999 – the last to complete their studies in this millenium! Our graduates share with us some of their favorite plants:

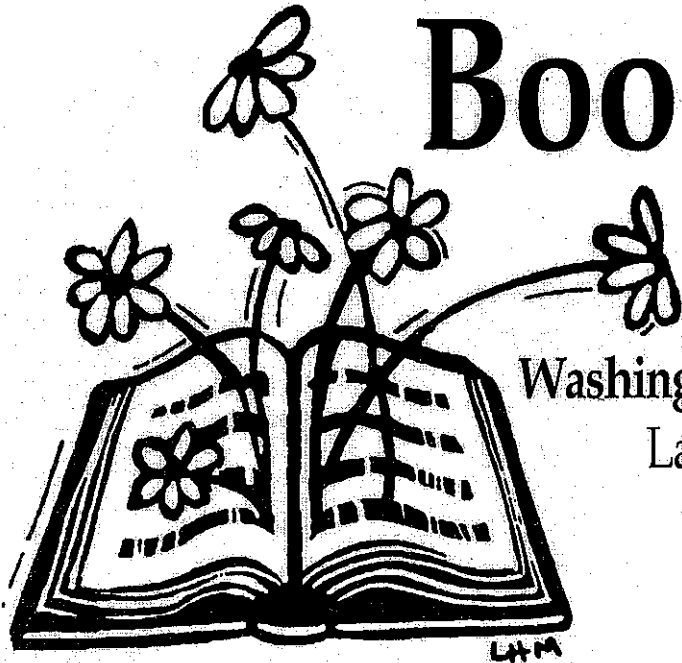
James Alberson	<i>Azaleas</i>	Donna McDonald	<i>Polyantha roses</i>
Debra Atencio	<i>Impatiens with double flowers</i>	Tom Mertens	<i>Clematis</i>
Claudia Barone	<i>Japanses maple – 'Bloodgood'</i>	Deborah Moore	<i>Daffodils</i>
Lisa Booth	<i>Trees</i>	Danny Murdaugh	<i>Azaleas</i>
Bob Bumgardner	<i>Coneflower</i>	Billie Ann Myers	<i>Petunia, hollies and black gum tree</i>
Sue Campbell	<i>Gardenia</i>	Lillian Rorie	<i>Azaleas</i>
Carolyn Cassaday	<i>Ferns, Vinca Minor, Iris, Daffodils</i>	Carolyn Ross	<i>Tulip</i>
Linda Chakales	<i>Gardenia, rose, etc.</i>	Ellen Rouch	<i>Fuschia, New Guinea impatiens</i>
Jayne Cia	<i>Gardenia</i>	Vivian Simmons	<i>Hydrangea</i>
Tonya Crenwelge	<i>Pansies, Hydrangea</i>	Fletcher Smith	<i>Hydrangea</i>
Vivian Davis	<i>Tomato</i>	Vande Southerland	<i>Herbs</i>
Kelly DeBusk	<i>Snapdragons</i>	Nell Stephens	<i>Azaleas</i>
Flo Dilday	<i>Orchids</i>	Stacy Tirman	<i>Ever-changing, anything that smells good</i>
Mary Douglas	<i>Cleome</i>	Linda Westergard	<i>Gardenia</i>
Thalia Etter	<i>Geraniums</i>	Jeanne Whitesell	<i>Azaleas</i>
Doris Fair Evans	<i>Ferns</i>	Jim Weirdsma	<i>Hoya</i>
G. T. Evans	<i>Boxwood</i>	Gloria Wright	<i>Hosta</i>
Mary Ann Fitz	<i>My hollies because they survived</i>		
Meg Fox	<i>Balloon flower</i>		
Debra Fuqua	<i>Tomato</i>		
Catherine Jewell Gill	<i>Roses and houseplants</i>		
Mollie Goza	<i>Columbine</i>		
Artie Halford	<i>Roses</i>		
Lynda Harkenreader	<i>Hosta, daylilly and iris</i>		
Ray Hartley	<i>Roses</i>		
Imelda Horne	<i>Helleborus</i>		
Mac Huffman	<i>Hosta</i>		
Ginny Jayroe	<i>Perennials and herbs</i>		
Bernice Johnson	<i>Almost any plant, especially herbs</i>		
Rebecca Kane	<i>Lily of the valley</i>		
John Kepner	<i>Texas blue bonnet</i>		
Kathy Kohl	<i>Aromatics – herbs and petunias</i>		
Dorores LeCompte	<i>Hyacinth</i>		
Ann Lenhart	<i>Tomato and corn</i>		
Margrey Long	<i>Azaleas and pansies</i>		
Karren Lyons	<i>Oak trees</i>		
Mary Lou May	<i>Hydrangea</i>		

*At Christmas, I no more desire
a rose Than wish snow in
May's new-fangled
mirth;
But like of each
thing that in
season grows.
— William Shakespeare*



Book Review

By Lois Clifton



Washington's Gardens at Mount Vernon Landscape of the Inner Man

By Mac Griswold

New York: Houghton Mifflin, 1999

We have a tendency to think of George Washington with respect but without genuine interest, as if he were a myth or someone our parents dreamed up. We don't think about the one who thinks everything through before saying it, who makes plans carefully and then carries them out. Cordon S. Wood writes, "He seems to come from other times and another place — from another world. And that's the whole point about him, he does come from another world ... He is the only truly classical hero we have ever had. ... And he knew it. ... That awareness of his heroic stature ... affected nearly everything he did for the rest of his life."

Mount Vernon is Washington's self-portrait of himself as an American: dignified yet fashionable, productive, temperate, observant, even scientific — though not scholarly — and, above all, domestic. The arts of gardening he practiced with his own hands are what we do too — designing, propagating, pruning, seed-gathering, planting and transplanting, even grafting. They telescope the distance between him and us, especially when we realize that he planted time and again and came up with nothing, just like we have done.

We must remember that Washington built Mount Vernon at a time when there were no corner seed markets or nurseries he could consult. However, in preparing for his landscape work he ordered from England in 1759 Batty Langley's *New Principles of Gardening* with its directions for laying out a country seat "after a more grand and rural manner." By the end of his days, George Washington had joined a working farm, an Arcadian landscape, and a business venture into a seamless whole.

He started with the house that he doubled in size. Then changed the straight drive to the curvaceous bowling green of today. Then came the enclosed view of asymmetrically massed planting. His treatment of views east and west was almost exactly the same, with running walls for palisades that connected the outbuildings to the house as well

as to each other.

Washington had begun to plant hundreds of trees and shrubs in front of his house in a day when there were few nurseries on the entire continent of North America. He dug saplings and young shrubs out of the woods, propagated cuttings, was given seeds, plants, and cuttings by friends and admirers, and had both plants and seed shipped from England. Eighteenth century gardeners were planting experimentally in a way that is impossible to conceive of today, so many plants were new to them and they had little or no cultivation instructions to go on.

Washington's garden contained all the vegetables indispensable to the kitchen, different kinds of berries (currants, raspberries, strawberries, gooseberries) and a great quantity of peaches and cherries. Washington kept moving fruit and nut trees into both the Upper and Lower Gardens.

Farming was George Washington's greatest pleasure. He also called it the occupation that "may be more conducive than almost any other to the happiness of mankind."

Peering backwards into the creation of Mount Vernon's landscape, gardens, and farms, together they really did form a portrait of the man. His philosophy of life deepened. His politics changed radically. James Flexner wrote that we are looking at a man who had called England "home" but came to the conclusion that Americans were no longer British — an idea reflected in Washington's determined efforts to break free economically from a system that made him a second class citizen. He heralded the idea that wrongs could eventually be righted.

This year, 1999, is the two hundredth anniversary of Washington's death. Many books have been written on his politics and his military career — and this one on his gardens. This book contains much history, period paintings, drawings of farm implements, and photographs. Included are lists of trees and flowers, vegetables, herbs, and fruits that were grown in Washington's day.

Christmas Tree Decorations

By Laura Ann Wilson

When I was growing up, the most important Christmas tree ornaments we decorated with were the warning bells – seven little brass bells I hung on the bottom branches.

Why, you ask? Well, in the dead of night, if I heard the tinkle, tinkle, tinkle of the little bells I knew I had only seconds to make it to our beautiful tree before it could be felled by any one of our four cats. You see, if it were not for those little brass bells I would not have any of the faded glass ornaments from my childhood left to guard each holiday season.

This season I have more than just the two remaining cats to fend off – there is also my truly adorable toddler. So this year I will decorate our tree with orange slices spiked with cloves, both fragrant and edible (more or less).

I discovered the clove has an interesting history. Chinese emperors were so fond of the fragrance of cloves that they required officers to sweeten their breath with cloves whenever they were to address the court.

The Romans, Greeks and Persians used them in love philters, and the clove was worth more than its weight in gold. Cloves were used medicinally to treat indigestion, toothaches, and (oops) flatulence. Cloves were especially valued because of their ability to preserve meats and were considered among the big four, including cinnamon, pepper, and nutmeg.

The clove tree is a member of the myrtle family. *Syzygium aromaticum*, its botanical name, comes from the Greek *syzygium* for “closed together,” in reference to the petals that close in a tuft over the clove flower. In fact, the word “clove” is derived from the French *clou* and the Latin *clavus* for “nail”. The Dutch refer to it as the “spice nail”.

Legend tells that for a clove tree to flourish, it must “see the sea.” Located in the Indian Ocean, the tiny Moluccas Island of Amboina was the first home of the clove tree. The natives planted a clove tree at the birth of a child and believed the death of the tree portended doom for the child. For a while this “clove island” was thought to be the only environment in which it could flourish.

However it is now widely cultivated in other tropical habitats like Brazil, Tanzania, and Indonesia. The trees are cultivated from one-year-old seedlings and grow to a height of 40 feet. While trees bloom year round, it takes 5,000 to 7,000 dried cloves to make one pound! Little wonder the Dutch and Portuguese fought a long trade war over clove commerce.

My recipe for orange clove ornaments includes oranges, cloves, a toothpick, and ribbon or metal ornament hangers. Simply slice one orange in 1/4 inch round slices. Use the toothpick to puncture the outside of the orange rind before inserting a whole clove into the rind. Repeat around the slice of orange. Use ribbon or metal ornament hangers to affix your orange ornament to your Christmas tree. Allow the orange clove ornament to dry on your tree while enjoying its lovely holiday fragrance. Merry Christmas, and bring Peace to our World. *

All references to cloves in this article were taken directly from www.frontierherb.com and are not intended to appear as my own words.

Checklist, continued from page 3

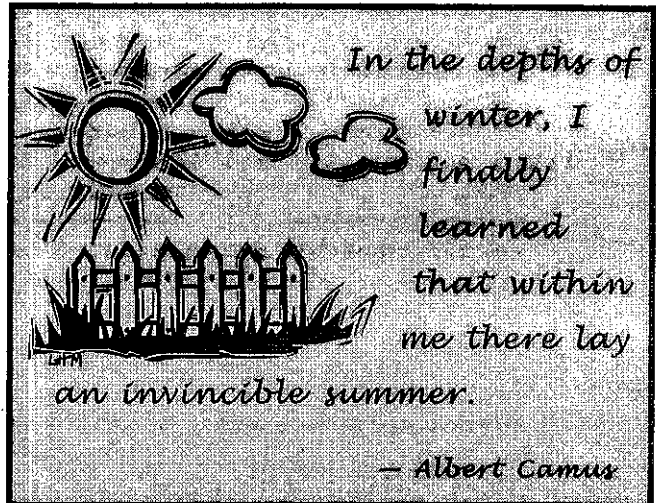
Spray broad-leaved evergreen (hollies, photinia and euonymous), if infested with scale, with dormant oil just before bud break.

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. *



Meet Your Master Gardeners

By Lynne Woods

EXTRA, EXTRA, READ ALL ABOUT IT!

This month's featured gardener is *Joan Humphries*. Joan is one of 10 children born to Polish parents, and is the first American-born child in her family. All 10 children are named after saints. She is named after Joan of Arc and was born on All Saints Day.

Joan has been married for 25 years and is the mother of three boys, ages 20, 18, and 16. She is an intensive care nurse, as nurturing is one of her strong points.

Joan equates gardening with the memory of her father. “I used to work in the garden with my father when I was growing up,” she says. “Dad gardened for the family and for pleasure. He would have one garden crop each summer for the boys to work. The time I spent in the garden was time spent with my father.”

Today gardening is Joan's stress relief after working in the ICU. She doesn't claim to be a skilled gardener but gardens more for enjoyment than anything.

Joan works on the Pulaski County Extension Office Project.

Date and place of birth: November 1, 1954, Little Rock, Arkansas

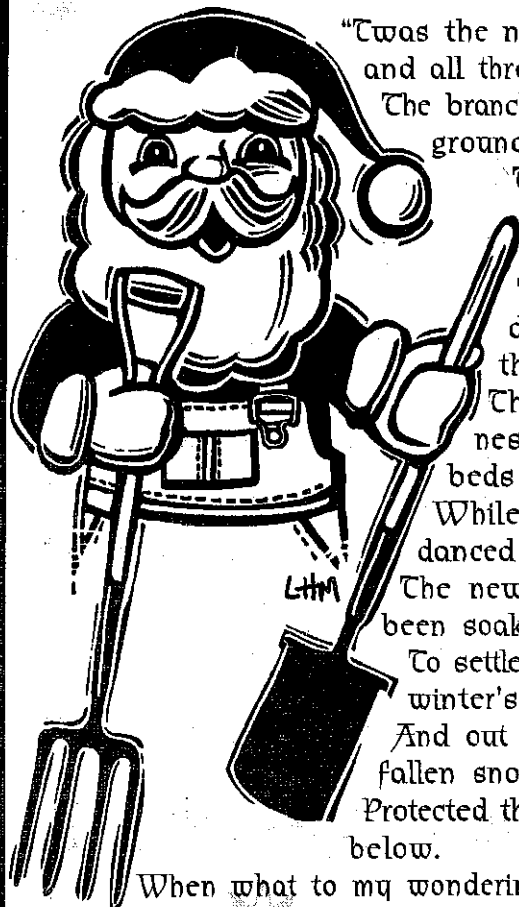
Master Gardener since: 1998

My favorite plant: Anything I've planted that is still alive.

I would never plant: Yucca – don't ask why. My husband understands.

One word to summarize my garden: Eclectic. *

A Gardener's Night Before Christmas



"Twas the night before Christmas
and all through the yard,
The branches were bare and the
ground frozen hard;
The roses were dor-
mant and mulched all
around
To protect them from
damage if frost heaves
the ground.
The perennials were
nestled all snug in their
beds
While visions of 5-10-5
danced in their heads.
The new planted shrubs had
been soaked by the hose
To settle their roots for the long
winter's doze;
And out on the lawn, the new
fallen snow
Protected the roots of the grasses
below.

When what to my wondering eyes should appear
But a truck full of gifts of gardening gear.
St. Nick was the driver — the jolly old elf.
And he winked as he said, "I'm a gardener myself!
I've brought Milorganite, Funginex and Volck Oil too.
To help with the weeding, a sharp hoe will do.
To seed your new lawn, I've a patented sower;
In case it should grow, here's a new power mower.
For seed-planting days,
I've a trowel and a dibble,
And a roll of wire mesh, if the rabbits should nibble.
For the feminine gardener, some gadgets she loves;
Plant stakes, a sprinkler, and waterproof gloves.
A chemical agent for her compost pit,
And for pH detecting, a soil-testing kit.
With these colorful flagstones, lay a new garden path;
And last but not least, some well-rotted manure!
A green Christmas year 'round these gifts will ensure."
The jolly St. Nick, having emptied his load,
Started his truck and took to the road.
And I heard him exclaim o'er the motor's loud hum,
"Merry Christmas to all, and to all a green thumb!"

Spread The News!

This is *your* newsletter. 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.

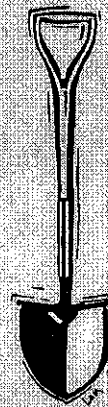
Please provide your information to us by the January MG meeting to see your message in the February newsletter.

You may bring your information to the meeting. You may mail it to Beth. You may call Rose Hogan at 374-9429 or e-mail her at rhogan@aristotle.net, or call Beth Phelps or Mrs. McKinney at 340-6650. Or you may call Cheryl Kennedy at 753-8192, fax her at 753-6305, or e-mail her at 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 — 1999

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Co-Chair/Layout	Cheryl Kennedy
Art	Lisa Hanson Mantle
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	Nelwyn Davis
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	Sarah Smith
	Claudia Stallings
	Libby Thalheimer
	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 1998, these volunteers gave more than 7,000 hours of service.

Elisabeth J. Phelps
County Extension Agent — Agriculture